

Make Your Publications Visible.

A Service of



Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre

Fiaschi, Davide; Giuliani, Elisa; Macchi, Chiara; Murano, Michelangelo; Perrone, Oriana

Working Paper

To abuse or not to abuse. This is the question. On whether social corporate responsibility influences human rights abuses of large multinational corporations (1990-2006)

LEM Working Paper Series, No. 2011/13

Provided in Cooperation with:

Laboratory of Economics and Management (LEM), Sant'Anna School of Advanced Studies

Suggested Citation: Fiaschi, Davide; Giuliani, Elisa; Macchi, Chiara; Murano, Michelangelo; Perrone, Oriana (2011): To abuse or not to abuse. This is the question. On whether social corporate responsibility influences human rights abuses of large multinational corporations (1990-2006), LEM Working Paper Series, No. 2011/13, Scuola Superiore Sant'Anna, Laboratory of Economics and Management (LEM), Pisa

This Version is available at: https://hdl.handle.net/10419/89538

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.





Laboratory of Economics and Management

Sant'Anna School of Advanced Studies Piazza Martiri della Libertà, 33 - 56127 PISA (Italy) Tel. +39-050-883-343 Fax +39-050-883-344

Email: lem@sssup.it Web Page: http://www.lem.sssup.it/

LEM

Working Paper Series

To abuse or not to abuse. This is the question. On whether Social Corporate Responsibility influences human rights abuses of large Multinational Corporations (1990-2006)

Davide Fiaschi °
Elisa Giuliani °
Chiara Macchi §
Michelangelo Murano °
Oriana Perrone §

^o Faculty of Economics, University of Pisa, Italy § Scuola Superiore Sant'Anna, Pisa, Italy

2011/13 June 2011

To abuse or not to abuse. This is the question.

On whether Social Corporate Responsibility influences human rights abuses of large Multinational Corporations (1990-2006)

Davide Fiaschi*, Elisa Giuliani*^β,
Chiara Macchi**, Michelangelo Murano*, Oriana Perrone**

* Facoltà di Economia, University of Pisa ** Sant'Anna School of Advanced Studies, Pisa

β Corresponding author:
Dipartimento di Economia Aziendale
Via Ridolfi 10, 56124 Pisa
E-mail: elisagiuliani@gmail.com
Phone: +39 050 2216280

ABSTRACT

We are currently observing an apparent paradox. On the one hand there is growing evidence about corporate misbehaviour and Multinational Corporations (MNCs)' violations of human rights. On the other, the largest MNCs are showing an unprecedented level of commitment to "save the world" through their Corporate Social Responsibility (CSR) initiatives and investments. In this scenario, how much does CSR contribute to curb human rights abuses of the largest worldwide MNCs? This paper investigates this question using a novel dataset of 135 MNCs operating in several sectors over the period 1990-2006. We apply Probit estimations to our data and show that MNCs that have adopted CSR initiatives have higher probabilities of being involved in alleged human rights abuses, but such probability decreases over time, as they accumulate experience in CSR. This result is found for human rights abuses for which MNCs are directly held accountable, whereas our evidence suggests that CSR experience does not curb corporate complicity in abuses committed by third parties. The paper concludes by discussing the normative implications of this result and by suggesting directions for further research.

KEY WORDS: Multinational Corporations (MNCs), Corporate Social Responsibility, Human Rights, Econometrics

JEL CODES F2; 3M14; K0; C23

1. Introduction

There is nowadays growing awareness about the fact that private actors, especially large multinational corporations (MNCs) can either positively or negatively condition their environment and the route towards development of the countries where they operate. It is undisputable the fact that in the past twenty years, MNCs have expanded their operations worldwide, both through direct investments (UNCTAD, 2010), as well as through the participation in global value chains (Gereffi and Korzeniewicz, 2004). This has led to unprecedented levels of power being accumulated by the largest MNCs, whose internal resources may exceed those of many countries, especially developing countries, which are particularly dependent on the assets and technologies of such private actors and have little bargaining power when it comes to establishing bilateral investment treaties. Such power translates in the capacity to generate positive impacts in the countries where their operations are based such as e.g. the generation of employment opportunities, the stimulus for industrial upgrading, the generation of productivity spillovers, etc (Kokko, 1994; Blomstrom et al., 2001; Javorick, 2004; Lall and Narula, 2004; Smeets, 2008; Giuliani, 2008). But MNCs operations can also have important implications in terms of human rights. As recently stated by the High Commissioner for Human Rights, Navi Pillay, in addressing the Human Rights Council in June 2009 "[t]he private sector is an increasingly vital force in enabling the economic and social development that is so inextricably connected with human rights and security." (Pillay, 2009: 1)

In this paper we will specifically focus on the human rights' impacts that MNCs can generate through their operations worldwide. By the term "human rights" we refer to International Human Rights Law, which is the set of standards negotiated and agreed by governments as deserving international recognition as human rights. Human rights belong to each person as a human being, and are considered the basic standards without which the realization of human dignity of a person is impossible. It is possible that in doing business "multinationals may occasionally also advance the cause of human rights" (Spar, 1999: 75), but at the same time there is compelling evidence about MNCs' human rights abuses, which cannot be ignored (Cassel, 2001; Monshipouri et al., 2003; Human Rights Council, 2008). Landmark cases from the history include the ITT's involvement in 1973, in subverting Allende's democratic government in Chile (Meyer, 1998), as well as the environmental and human disaster caused by Union Carbide in Bophal India in the 1980s (Meyer, 1998), and the complicity of mining MNCs in plundering resources, prolonging the war and condoning human rights' abuses in the Democratic Republic of Congo (Papaioannou, 2006). A recent case is also that of Nigeria, where foreign oil corporations are alleged to have contributed to destroying the Niger Delta eco-system, severely hampering the capacity of the local community (the Ogoni) to carry out their subsistence activities over the long term. This violates their rights to health,

-

http://asiapacific.amnesty.org/apro/APROweb.nsf/pages/knowHRdefinition

to live in a generally satisfactory environment favourable to development, to dispose freely of their natural resources, to housing, food and life.²

While evidence of MNC human rights abuses is increasing, we almost paradoxically observe that MNCs commitment to "save the world" is greater than ever. There is growing awareness among MNCs' executives that respect for human rights is a fundamental and necessary part of practising good management (Brown and Woods, 2007). A 2006 survey of Global Fortune 500 companies found that nine out of ten companies responding to the survey reported having human rights principles or management practices in place.³ After notable cases of MNCs, which have been publicly called to account for alleged human rights violations, many companies are now integrating human rights considerations into their mainstream business decision making. As former CEO of Unilever, Mr. Patrick Cescau, argues "we have come to a point now where the agenda of sustainability and corporate responsibility is not only central to business strategy but has become a critical driver of business growth" (cited in Prahland, 2010: 19). Hence, in their attempt to gain good reputation, MNCs do voluntarily self-regulate (Brown and Woods, 2007), by adopting codes of ethics and Corporate Social Responsibility (CSR) practices as fundamental building blocks of their strategies.

The debate about the effectiveness of CSR for limiting MNCs human rights abuses has so far been essentially normative. On the one hand, advocates of CSR conceive it as one of the best and most promising soft-law approaches to deal with human rights issues. Since legal frameworks are likely to differ widely across countries, with some developing countries having no rule of law at all, CSR may be the only way to define the responsibilities of business firms (Muchlinski, 2001; Scherer and Palazzo, 2008). In other terms, CSR practices may act as substitutes of lacking regulatory frameworks and in some cases they may even spur and stimulate fundamental changes in the rule of law – a case in point being the child labour legislation mentioned by Rivoli and Waddock (2011). At the opposite side of the barricade are those who believe that CSR is just a window-dressing and marketing strategy and that, since self-regulation is neither monitored nor sanctioned, it is unlikely to generate any real positive societal impact (Enoch, 2007; Kinley and Nolan, 2008; Webley and Werner, 2008). Scholars arguing against CSR are also concerned that corporations taking responsibilities in the domain of human rights will progressively induce countries – especially those characterized by an already weak rule of law – to abdicate to their role of regulators – a dangerous drift that challenges the traditional idea that only state agents can be held responsible for human rights violations (Human Rights Council, 2008). Among others, this is a terrain of research of international law scholars, whose interest is in

_

Social and Economic Rights Action Center and Center for Economic and Social Rights v. Nigeria, Comm.No. 155/96, ACHPR/COMM/A044/1, 27/5/02. This landmark case represents the first instance of the relationship between the environment and human rights has being clearly spelled out.

³ Human Rights Translated. A Business Reference Guide (2008), Castan Center for Human Rights Law, International Business Leaders Forum, and Office of the United Nations High Commissioner for Human Rights.

identifying viable regulatory and legal frameworks that can limit human right's abuses by the business sector (Ratner, 2001; De Schutter, 2006; Eroglu, 2008; Kobrin, 2009).

While mostly interested in normative solutions, scholars have generally paid little attention to the empirical study of the relationship between CSR and corporate human rights abuses and, to date, we do not have a clear-cut answer to this very general question: *does the adoption of CSR reduce the likelihood that large MNCs get involved in human rights abuses?* In spite of having attracted the attention of many scholars worldwide, answers to this question remain mostly ideological and philosophical (see e.g. Scherer and Palazzo, 2008). This may be due to a set of concurrent factors. First, there is a general distrust of scholars of this area of research towards positivistic approaches in favour of normative approaches, as the former is considered to be incapable of providing a sound moral grounding for the eventual "uncomfortable" normative implications of the study (Scherer and Palazzo, 2007). Second, there is an inherent complexity in accounting for and measuring human rights abuses (Claude and Jabine, 1986), for which the quantification of corporate human rights abuses in ways that permit empirical analysis is an almost uncharted territory (an exception is Wright, 2008). Third, over the past decade CSR scholars' research agenda has been primarily focused on CSR impact on corporate profitability, while interest on CSR's impact on society as a whole has been surprisingly low, as recently noticed by Karnani (2011).

In this paper we address these limitations and undertake a large-scale empirical analysis aimed at exploring whether the adoption of CSR and the experience matured by MNCs in CSR (in terms of years since CSR adoption) relate to different types of MNCs' alleged human rights abuses. We study the behaviour of a stratified random sample of the largest 5 MNCs in 27 different sectors over the period 1990-2006, accounting for a total of 135 MNCs. To study the relationship between CSR and human rights abuses we apply a Probit model to our data. Our general result is that firms that have adopted CSR initiatives are more likely to be involved in alleged human rights abuses, but such probability decreases over time, as firms accumulate experience in CSR. This result is found for human rights abuses for which MNCs are directly held accountable, whereas our evidence suggests that CSR experience does not curb corporate complicity in abuses committed by third parties. We hope that our study will spark a new wave of quantitative research on the relationships between CSR and human rights, and more in general on the study of the role of business in society. We also discuss how our results could inform normative studies on CSR and human rights. The paper is organized as follows. Section 2 outlines the conceptual framework. Section 3 elaborates on the data and methodology; Section 4 presents the empirical results and Section 5 concludes.

2. Conceptual framework

2.1 Corporate Social Responsibility and human rights: an introduction

Corporate Social Responsibility (CSR) is an umbrella term that, in spite of its many definitions (for a review see Waddock, 2008), incorporates the idea that corporations have responsibilities beyond profit maximization (Shum and Yam, 2010). Although it is not settled whether corporations should do more than rewarding their shareholders,⁴ and there are contrasting views about whether corporations should be in charge of reducing poverty or more broadly solve the problems of humanity, it is certainly less controversial the fact that corporations should not, in their operations, behave irresponsibly towards their stakeholders.⁵ At its highest conception, "being socially responsible means not only fulfilling the applicable legal obligations, but also going beyond compliance and investing "more" into human capital, the environment and relations with stakeholders." (European Commission, 2001, p. 6). In theory, therefore, corporations adopting a CSR policy decide to self-regulate their own activities as to act responsibly towards their own employees, the local communities where their operations take place, the suppliers and clients and any other private or public actor, whose activities are connected to the them. This signifies acting in favour of these actors even when the law does not prescribe it to do so, as may be the case of countries where state capacity and rule of law are weak (Englehart, 2009).

In practice individual corporations have interpreted and adopted this general and holistic concept in very different ways. Adoption of CSR spans from purely philanthropic initiatives, to the compliance with fully-fledged codes-of-ethics up to a more frontier engagement with social issues through the adoption of a "shared value" strategy, which Porter and Kramer (2011) consider to be the next evolution in capitalism. Whatever the level of engagement of corporations with CSR, they certainly want to communicate to the world that they care about society. This is reflected in many corporate websites, where social responsibility programs are made public. For instance, Procter & Gamble's CSR aims to "improve lives for those in need around the world," while Yum! Brands' CSR "can

4

This debate was initiated by the well known 1970 New York Magazine article by Milton Friedman "The social responsibility of business is to increase profits."

Even if it seems reasonable that MNCs should not behave irresponsibly, in fact there is an ongoing debate over the human rights obligations of MNCs, which stems from the tension between the classical conception of States as sole subjects of international law (e.g. sole bearers of international duties and obligations), and the growing need to define corporate accountability for behaviours that bear a direct impact on human rights. Hence, the contour of corporate international legal accountability is still blurred (Kinley and Tadaki, 2004). We are thus aware that MNCs human rights obligations can by no means be simplistically equated to those of States, but we follow the recent view of The Special Representative of the UN Secretary General, Mr. John Ruggie, according to which "the corporate responsibility to respect human rights exists independent of State duties" and that it constitutes "a baseline expectation" for all companies.

Porter and Kramer (2011)'s idea of "creating shared value" is meant to supersede SCR, and it brings social concerns at the core of the business, not at the margins of it.

Procter and Gamble's website: http://www.pg.com/en_US/sustainability/overview.shtml (last accessed: 23rd May 2011).

make this world a better place." The key question here is the extent to which claims of "making this world a better place" turn into managerial decisions and strategies that can really improve human rights, or at least, reduce the probability that human rights abuses are committed by the same corporation.

As anticipated in the introduction, human rights belong to each person as a human being, and are considered the basic standards without which the realization of human dignity of a person is impossible. They have been first listed by the Universal Declaration of Human Rights (UDHR) adopted in the form of a resolution by the UN General Assembly in 1948 "as a common standard of achievement for all peoples and all nations." The are two original categories of human rights: civil and political on one side and economic, social and cultural on the other. The former aim at protecting individuals' freedom and ensure that any individual is able to participate in the civil and political life of the state without discrimination or repression. The latter include rights such as the rights at work, the right to education, the right to housing, and the right to health (see Appendix I for a full list of human rights).

International law scholars do generally reject the idea that it is possible to establish a hierarchy of human rights, and thus consider that it is undesirable to rank some of human rights as being more relevant than others. This is based on the idea that the realization of each human right requires other human rights and in this sense all human rights are indivisible (Teraya, 2001). Even with this caveat, a distinction is commonly made between human rights considered as *jus cogens* and the rest of human rights (hereinafter *non jus cogens*). *Jus cogens* norms are defined in the Vienna Convention on the Law of Treaties as "peremptory norms of international law," they are considered legally binding on *all* states by customary law, irrespective of the treaties ratified by individual countries and are accepted and recognized by the international community of States as a whole as norms "from which no derogation is permitted and which can be modified only by a subsequent norm of general international law having the same character." *Jus cogens* norms include the prohibition on certain abuses, among which the arbitrary deprivation of life, genocide, slavery, torture, prolonged arbitrary detention, enforced disappearances, and others (see Appendix 1 for a list). An example of corporate *jus cogens* abuse is found in the behaviour of Shell Oil, which has been accused of complicity in the killing of the Ogoni activist Ken Saro-Wiwa in Nigeria, in a famous court case recently closed with a settlement.

,

Yum! Brands website: http://www.yum.com/csr/heart/ (last accessed: 23rd May 2011).

Vienna Convention on the Law of the Treaties (1969), art. 53.

The main instrument codifying civil and political rights is the UN International Covenant on Civil and Political Rights, adopted in 1966 and entered into force in 1976 (available at: http://www2.ohchr.org/english/law/ccpr.htm).

The main instrument codifying economic, social and cultural right is the UN International Covenant on Economic, Social and Cultural Rights, adopted in 1966 and entered into force in 1976 (available at: http://www2.ohchr.org/english/law/cescr.htm).

Vienna Convention on the Law of the Treaties (1969), art. 53.

Another is the Unocal case, which was complicit in human rights violations such as forced relocation, forced labour, rape, murder and torture, perpetrated in constructing a natural gas pipeline through Burma to Thailand – the Yadana project (Wells, 1998; Holzmeyer, 2009). Corporate human rights abuses that do not fall within the *jus cogens* typology (*non jus cogens*) span from workers' discrimination, to cases of environment contamination that hamper people right to live in a healthy environment, to instances of products launched in the market containing dangerous or poisoning ingredients – a case in point is the recent Mattel's toys scandal (Roloff and Aßlander, 2010).

Finally, MNCs can, either directly or indirectly, be involved in corporate human right abuses. We consider here the corporation to be *directly* involved in an abuse when managers at corporate headquarters or at different subsidiaries dislocated around the world do themselves take decisions that lead to human rights abuses. ¹³ *Indirect* abuses occur instead when the MNCs managers— at headquarters and/or subsidiary levels— are complicit with human rights abuses perpetrated by other actors. These other actors may either be firms in the MNC's value chain (e.g. suppliers, clients, etc.), or non-business actors such as government bodies and States.

2.2 CSR and human rights: what is the relationship?

2.2.1 Does the adoption of CSR reduce the likelihood that large MNCs get involved in human rights abuses?

At a first glance the adoption of CSR initiatives should render human rights abuses less likely. As CEOs of large corporations commit to the ethical ideas and principles of CSR, their association with any abuse of human rights thereinafter conveys a high risk of discrediting the corporation as a whole, not only vis a vis consumers, but also vis a vis International Organizations, such as the UN, ILO and OECD, which have been making an important moral suasion towards corporations in the past ten years at least. When Total or Coca-Cola top managers congratulate John Ruggie for his work at the UN Human Rights Council and declare to support the Guiding Principles on Business and Human Rights, which implement the United Nations "Protect, Respect and Remedy" Framework (2011), ¹⁴ then very little scope should be left for committing human rights abuses thereafter. Nonetheless, scattered anecdotal evidence has shown that even firms with CSR can behave unethically (Webley and Werner, 2008). This tells us that the relationship between CSR and human rights abuses is far from being clear.

_

We are aware of the fact that a parent company and its subsidiaries can be construed as distinct legal entities and that, therefore, the parent company is generally not liable for wrongs committed by a subsidiary, even where it is the sole shareholder (Human Rights Council, 2008). However, we consider the MNC as a unique business actor in line with international business theories.

The "Protect, Respect, Remedy" Framework rests on three pillars: the State duty to protect against human rights violations; the corporate responsibility to respect human rights and the greater access by victims to effective remedy, both judicial and non-judicial. See: http://198.170.85.29/Ruggie-protect-respect-remedy-framework.pdf (last accessed 31st May 2011).

To understand this relationship we need to examine the motivations underpinning the strategic decision to undertake CSR initiatives on the one hand, and to abuse human rights – both directly and indirectly – on the other. The choice to adopt CSR is not cost free. Firms adopting CSR initiatives are sure to be voluntarily generating a cost - in terms of e.g. devoting staff to promote a cultural change towards the adoption of new codes of ethics; investing in philanthropic initiatives; setting up a CSR department that promotes good relationships with the local community, etc. – a cost that will not necessarily enhance corporate financial performance (for a review see Margolis et al., 2007). Even so, CSR scholars have told us that there are good motivations for bearing such a cost. In some cases, the adoption of CSR initiative is a defensive strategy. As Cassel (2001) puts it, CSR adoption occurs "only after embarrassing public exposes of sweatshop conditions" (p. 268). Accordingly, adoption is likely to take place after a company has been associated with a human right abuse and has a urgent need to re-gain its reputation on the market. This may be particularly important in industries that are on the "spotlight" (Spar, 1998), such as those in which the brand or the image of the corporation is key to achieve market leadership, and the success of the corporation depends on the degree of social acceptance within the society (Blanton and Blanton, 2009). In other cases, the adoption may have nothing to do with the firm's prior involvement in human rights' abuses, but rather with its interest to build a direct reputational capital, which is strategic for corporate success (Fombrun et al., 2000). Having a good reputation opens up opportunities for creating value, facilitates relationships with stake-holders, especially with governments and regulators, who may be more likely to shape laws in favour of corporations' self-interest. Likewise building a strong reputational profile may serve to obtain the endorsement of activist groups and NGOs, which threaten corporations through their tireless effort to monitor and document corporate misconduct (Spar and La Mure, 2003). Hence, it may serve to generate a more favourable environment within which companies can operate. Also, taking CSR so proactively may be the response to an industry pressure: if adoption is widespread within the industry then there might be a risk of reputational loss for non-adopting, which justifies the adoption.

To explain human rights abuses we bring Dunning (1993)'s strategies to a more illegal terrain. According to Dunning (1993), MNCs invest in other countries for four main motivations: to entry to a particular foreign market (market seeking FDI); to exploit natural resources, e.g. minerals, agricultural products, etc. (resource seeking FDI); to search for a more efficient division between labour and production (efficiency seeking FDI); and to access to foreign technologies or other valuable strategic assets (strategic asset seeking FDI). Abusing human rights may be a way through which one or more of these strategies can be pursued better. For instance, abusing workers' rights or reducing the cost of plant maintenance – a choice that may eventually result in fatal accidents – allow efficiency-seeking strategies to be pursued with success. Likewise, the abuse of human rights may come as MNCs follow natural-resource seeking strategies and are eager to get their hands on e.g. a mine or an oil well, even

if those extraction activities would devastate the local community's natural environment and threaten their right to health for good. At a global scale, gains from the successful achievement of these strategies are likely to be so huge that they outweigh any potential cost that would be generated in case the human right abuse is discovered and sanctioned. Such costs, which include compensations to the abused individuals or communities, and investments needed to restore the company's reputation and its relationships with stakeholders, may therefore not always be enough of a barrier for an abuse. For this reason, there are sectors where human rights abuses are more likely to occur – a case in point being the extractive industry (Slack, 2011), where the gains from setting up operations that may hamper the lives of a whole community of people are much higher than would be any form of eventual compensation to that community. One these grounds it is hard to have expectations about whether CSR will reduce the probability of human rights abuses and we leave this question open for investigation.

2.2.2 Does CSR experience influence the likelihood that large MNCs get involved in human rights abuses?

If CSR is bound to produce a change in corporate behaviour, it will not happen overnight. In other words, the mere adoption of CSR initiatives by the top managers of a 35th floor headquarters division in a US city is unlikely to have instantaneous effects on the working routines and management culture of the employees working in another division of the same building, and even less on that of managers at remote subsidiaries. As with any other learning process, the adoption of a new corporate culture requires time and constant commitment at all levels of the MNC organization. As Webley and Werner (2008) notice "it is not sufficient to send a booklet to all staff and expect them to adhere to its contents." (p. 407) Learning is a cumulative process, so even if there is the will to adhere to new corporate principles, this learning process may require time to become part of the corporate routine and become internalized by managers (Nelson and Winter, 1982).

Such learning process is much more complicated in MNCs, where CSR needs to permeate the headquarters staff, but also the distant subsidiaries' managers. To understand this process, reference must be made to the fact that contemporary MNCs do rarely fit within the traditional hierarchical organizational model, which conceived subsidiaries merely as "distant tools of corporate management, reacting as ganglia to impulses sent downward through the bureaucratic nervous system." (Taggart, 1998, 663). Nowadays MNCs are loosely coupled organisations composed of actors or units with heterogeneous resources and even conflicting interests (Ghoshal and Bartlett, 1990). Hence, subsidiaries are unlikely to adopt passively decisions taken at the headquarters levels. Instead, they may be more autonomous from the headquarters than is conventionally thought (Bartlett and Ghoshal, 1986; Birkinshaw, 1997) and the learning process from the headquarters be far from being an

automatic process, requiring continuous commitment by local subsidiary's managers to make a real change (Marin and Bell, 2006). This suggests that CSR may take time to bring effects. In this paper we explore whether CSR experience (measured as the number of years since CSR adoption) influences the probability of human rights abuses. The expectation is that, as CSR experience increases, MNCs will be better able to deal with human rights issues and will therefore be less likely to find themselves involved in abuses.

2.2.3 Does CSR influence differently the probability of committing direct versus indirect human rights abuses?

As we have discussed earlier, contemporary MNC top managers have a dilemma to face. On the one hand they have to achieve their annual targets and need to increase their business performance by taking decisions oriented at, for instance, greater production efficiency or major access to valuable natural resources. In taking some of these choices, managers may deliberately (or even unconsciously) generate harm to different types of individuals. On the other hand, they are also aware that any harm they may cause in their business operations will bring potential costs in terms of eventual compensations to victims, as well as reputation loss. How can they solve this dilemma? One possible way out is externalizing as much as possible the risk of committing direct abuses, while maintaining the lucrative opportunities inherent with "harmful" decision making. In other words, we argue that MNCs may try to preserve their reputation by reducing their involvement in abuses for which they can be directly held responsible. Meanwhile, they may divert their abuses on third-party actors (both business and non-business), for which MNC managers less likely to be spotted and sanctioned. An illustrative example is that of MNC "x" that decides to raise the workers' labour conditions in their plants (e.g. better paid jobs; more security; etc.), while at the same time it subcontracts part of the production to external suppliers, imposing on them price conditions that are unlikely to be achieved without them recurring to labour rights violations. On these grounds, we argue that CSR experience may lead to a higher degree of sophistication in the way in which human rights abuses are concealed. MNC may well learn how to reduce their direct involvement in such abuses, but at the same time experiment on ways in which these can be externalized to other actors. We thus expect that, as CSR experience increases, firms will reduce their involvement in direct human rights abuses, while complicity in abuses committed by third actors may be far from being reduced over time.

3. Methodology

3.1 Data

To explore the proposed research questions we have created an entirely new firm-level dataset. The dataset includes a total of 135 multinational firms belonging to 27 different sectors (see Appendix 2A

for the list of sectors). We have randomly selected five of the largest MNCs for each sector, based on their 2006 revenues, as reported in the "Forbes Global 2000" ranking. This has resulted in MNCs headquartered in the US and Canada (54 %), Europe (38%), Asia (7%) and Bermuda (1%) (see Appendix 2B for a full list of the MNCs in our sample). For each MNC we have collected information, mainly through secondary sources, about their size (employees for the period 1990-2009); year of foundation; and revenues and other financial indicators (ROI, profits, etc. for 1990-2009). Apart from this information, we have collected two types of data that are relevant for this study: (a) data about alleged human rights abuses and (b) data about CSR adoption.

(a) Data about alleged human rights abuses

The collection of evidence of corporate-related human rights abuses is based on a unique source - the Business and Human Rights Resource Centre (BHRRC) webpage (www.business-humanrights.org) which is considered to be the world's leading independent information hub on the positive and negative impact exerted by MNCs on human rights worldwide. The Centre has offices in London and New York and can rely on the work of regional researchers based in Africa, Asia, Eastern Europe and Latin America, who connect with local NGOs and gather information in the field. As it can be read on the website of the Centre, the BHRRC database "covers the social and environmental impacts of over 5000 companies, operating in over 180 countries. Taking international human rights standards as its starting point, topics covered include discrimination, environment, poverty and development, labour, access to medicines, health and safety, security, trade"¹⁵. The main daily task of researchers at BHRRC is to collect news and reports relating to Business and Human Rights from the web and other sources, paying attention to sources coming from all regions of the world, including many local newspapers and reports by large and small NGOs. News, reports and events regarding the relation between the activities of companies and human rights are examined and published on the Centre's website, provided they meet a minimum criterion of credibility (therefore excluding blind attacks on a company) and they highlight the impact of business on human beings (e.g. news merely relating to the protection of an endangered species with no clear connection to an impact on human rights will not be usually published). Allegations of human rights violations by companies are given visibility, but companies are given the opportunity to reply to such allegations before their publication on the website. When companies decide to respond, their counter-argument is published along with the article/report condemning their conduct. Such procedure has often allowed MNCs and civil society representatives to engage in some sort of dialogue, and to bring under the spotlight controversial episodes that needed clarification¹⁶. To the best of our knowledge, the first attempt to use this datasource as a basis for empirical analysis is Wright (2008), who has undertaken a descriptive analysis of

_

http://www.business-humanrights.org/Aboutus/Briefdescription

This is particularly relevant when the actors concerned are small communities and NGOs from developing countries seeking answers from MNCs based in OECD countries. The complete lists of companies' responses are available here: http://www.business-humanrights.org/Documents/Update-Charts.

the type of corporate-related abuses in the period 2005-2007. Such a document has then been published as an addendum to United Nations Secretary-General's Special Representative for Business and Human Rights (SRSG)'s 2008 report to the Human Rights Council.

We have looked for any alleged abuse connected to the MNCs in our dataset, which means that we have gone through over 1,000 documents among news and reports documenting evidence about "events" of negative human rights impacts. The review of the documents has permitted the identification of different types of "events" associated to any of our sample MNCs. For each event, we reported in the dataset the following information:

- (a) a brief description of the event for instance "it exposes employees to radiations without protections, which has resulted in long term illnesses or deaths";
- (b) the place (often the country/ies) in which the event took place;
- (c) the year(s) in which the event took place. This record includes, for each event, the year in which the abuse has started and the year in which it is considered to have come to an end. In very few of cases it has not been possible to identify the exact starting date of the abuse because even those denouncing the abuse did not possess this information. In such cases, we have been conservative and we have considered the abuse to have started one year before the year in which we know the abuse has come to an end.
- (d) the year in which the event has been denounced or reported;
- (e) whether the event is:
 - a human right abuse of the *jus cogens* type;
 - a human right abuse of the non jus cogens type;

The identification of *jus cogens* and *non jus cogens* rights has been done with the help of a small panel of human rights experts. We have also coded unethical behaviours although have decided not to use that information in this paper.¹⁷

- (f) whether the event of the abuse is:
 - directly associable to the MNC (i.e. it has been either committed by managers working at the headquarters or at one or more of the MNC subsidiaries):
 - indirectly associable to the MNC (e.g. as in the case of abuses committed by actors in the supply chain);
- (g) Like in Wright (2008), we have distinguished between human rights abuses against *individuals* (usually individual employees); *communities* and *end-users*.

We have considered corruption aside from human rights abuses, although Wright (2008) maintains that "corruption can impede realization of all rights" (p. 2).

There are some caveats in using these data that we need to discuss here. The first one is that these data are mostly alleged abuses and not abuses that have necessarily gone through a court trial and been condemned. As mentioned earlier, international and national legal systems in some cases fail to be effective in sanctioning the human rights abuses that corporations perpetrate around the world, and sometimes this is even due to a deliberate lack of interest by States in applying the rule of law. Hence, taking only cases that have gone through a trial would severely underestimate the record of abuses. On our side, the fact that researchers at BHRRC filter the information on the basis of the sources' credibility brings the probability that our dataset includes false allegations to a minimum. In fact, one of the potential weaknesses of the dataset is not the overestimation of the abuses, but rather their underestimation for not all abuses are denounced and become tracked in the BHRRC portal. Unreported abuses may be common in countries where political and civil rights are weak, the free press is limited, and protests by local communities, NGOs and other components of the civil society are repressed. Also, abuses are unlikely to be reported in those countries where the government is complicit with MNCs human rights abuses and imposes a red tape on a certain type of information. Even with these caveats, we cannot ignore that a growing body of evidence about corporate human rights abuses is now available for analysis.

A total of 472 events of human rights abuses (both *jus* and *non jus cogens*) have resulted from our data collection. However, since some events last for more than one year, we calculate also the number of cumulative years in which abusive events have taken place, which account for a total of 1414 "annual events", of which 413 are *jus cogens* abuses, and 1001 *non jus cogens* abuses. In terms of timing, the first events have taken place at the end of the nineteenth century and they are cases of slavery. Additional 12 events have occurred prior to the UDHR in 1948. We have excluded these cases from our analysis as they have taken place in a period in which a universal understanding of the concept of human rights and human rights abuses was yet to be developed. Furthermore, we decided to exclude abuses occurred in the period 1948-1990 (a total of 15 events) because records of abuses over such a distant period are likely to be highly inaccurate and incomplete, both because the BHRRC started up in the 1990s and because it is only from the 1990s that, also thanks to the internet, information about corporate human rights abuses have started to become available more widely. In our analysis we consider a period of 17 years, ranging from 1990 to 2006. We have collected data until 2010 but we

_

The development of the concept of "human rights" has a history spanning over centuries, but modern human rights' doctrine emerged only after World War II, and largely in response to its atrocities. Concepts such as natural rights or the Kantian account for moral autonomy and equality of rational individuals influenced the emergence of revolutionary ideals during the 18th century and resounded in documents such as the United States' Declaration of Independence and the French National Assembly's Declaration of the Rights of Man and Citizen. Despite this, a clear definition of human rights as a set of civil, political, economic and social rights universally recognized and deserving protection by the international community was first codified only in 1948 with The Universal Declaration of Human Rights (UDHR) adopted by the UN General Assembly.

have been sceptical about using the most recent years, as we have noticed in our dataset that there is always a lag in time between the year in which an event takes place and the year in which it gets reported or denounced. Including years after 2006 would have thus had the risk to underestimate the events occurred in that period.

Table 1 shows statistics of events occurred in the period of analysis. Statistics reveal a dire scenario, with about a third of the MNCs in our dataset being associated with at least one *jus cogens* abuse (30%) and a half of them being involved also in at least one *non-jus cogens* abuse (50%). Even more striking is the fact that 9 per cent of our sample MNCs have been associated with at least ten *jus cogens* abuses over the period (Table 1-i). We also observe an increase in the number of alleged human rights abuses over time as reflected by the differences in the average number of abuses per MNC at the beginning and end of the period of observation, particularly so for *non jus cogens* abuses (Table 1-ii). The increase may be due to the existence of two concurrent effects, the first has to do with the fact that over this period of time MNCs have increased their level of international operations in very significant ways (UNCTAD reports, several years), and this may have had an effect in multiplying the opportunities for abusing. Second, it is also plausible that more abuses are reported over time as there has been a recent and growing attention to monitor and denounce corporate misbehaviour, by NGOs and activist groups, which was not commonplace more than a decade ago. This is an important caveat in our research, which we have taken in due consideration as we modelled our estimations, as discussed at length in Section 3.2.

Table 1-iii shows that about a half of *jus cogens* abuses are directly associated with the MNC (53%), while in another half (47%) the MNC is only indirectly involved. In the case of *non jus cogens* abuses, the percentage of abuses with a direct involvement of the MNC is higher (73%). We also show in Table 1-iv that the vast majority of abuses are against communities (87% in the case of jus cogens and 82% in the case of *non jus cogens*), while abuses against individuals and end-users occur to a much lower extent. Finally, we show the geographic distribution of abuses (Table 1-v): we find that Asia is the champion for *jus cogens* abuses (partly due to the effect of China), whereas, USA and Canada stand out in non *jus cogens* abuses, representing about 40 per cent of the overall alleged abuses.

¹⁹ Statistics in Table 1-iii and 1-iv are not based on the number of "events", but on the cumulative number of years the "events" have lasted. This is because, as said, an event of abuse may last more than one year, and in these statistics we have multiplied the event for the number of years it took place.

Table 1 Descriptive statistics on the dataset

	Jus cogens	Non jus Cogens
) Frequencies of abuses		l
Number (% on total sample)		
Number of MNCs with at least 1 abuse (1990-2006)	40 (30%)	68 (50%)
Number of MNCs with at least 5 abuse (1990-2006)	23 (17%)	28 (21%)
Number of MNCs with at least 10 abuses (1990-2006)	12 (9%)	20 (15%)
ii) Average number of abuses per MNC (Average)		
Average number 1990-2006	0.18	0.44
Average number in 1990	0.20	0.19
Average number in 2009	0.23	0.62
iii) Frequencies on the basis of type of abuse Cumulative number of yearly events (% on total abuses of sa	** '	
Direct	218 (53%)	729 (73%)
Indirect	195 (47%)	272 (27%)
(v) Frequencies on the basis of type of abusee		
Cumulative number of yearly events (% on total abuses of sa		T
Abuses to individuals	37 (9%)	39 (4%)
Abuses to communities	360 (87%)	822 (82%)
Abuses to end- users	16 (4%)	140 (14%)
v) Frequencies on the basis of geography of the abuse Total number (%on total abuses of same type)		
USA and Canada	15 (10%)	129 (41%)
Europe	12 (8%)	36 (11%)
Africa	27 (18%)	38 (12%)
Asia	43 (29 %)	54 (17%)
Latin America and Caribbean	25 (17%)	37 (12%)
Russia and ex Soviet Union	8 (5%)	4 (1%)
	6 (4%)	6 (2%)
Middle-East	0 (+70)	* (= /*/
Middle-East Oceania	2 (1%)	4 (1%)

(b) Data about Social Corporate Responsibility

For each MNC in our dataset we have collected information about whether they have adopted CSR initiatives and when. In many cases we have retrieved this information directly through corporate websites, by looking at the webpage that is dedicated to CSR, which does commonly take the name of "Social Corporate Responsibility," or variations of it (e.g. "Social Responsibility", "Corporate Responsibility and Sustainability", etc). While most of the firms had a CSR webpage, they not all indicated the year in which they have introduced it at corporate level. In such cases we have contacted the company via email and phone and asked this information directly. No data is missing on this item. In asking this question, we have not over-imposed a definition of CSR (since there are many), we have simply made reference to their website about CSR and asked them to tell us a year in which this new initiative was first introduced. As a result we found that 88 per cent of the sample have adopted CSR

-

We are aware that there might be enormous inter-firm variation in the degree to which CSR is implemented at corporate level, but in this paper we did not take that heterogeneity into account. We have discussed this limitation in the concluding section of the paper.

after the year 1990, with the rest of the firms adopting in earlier times. Only four firms in our dataset are non adopters.

3.2 Methodology for empirical estimation

To explore our proposed research questions we use a Probit model (Verbeek, 2008), estimated through the *glm* routine of R project (R, 2011). The dependent variable is a binary variable, which takes the value of 1 if the MNC has been associated with an alleged abuse of human rights, and 0 otherwise, for every year from 1990 to 2006. We pool this information for all firms in all years, resulting in a sample of 2295 observations (17 years x 135 firms). We estimates five models, namely:

- (i) the probability of being associated with *any* type of alleged human right abuse (Model I);
- (ii) the probability of being associated with at least one alleged human right abuse of the *jus cogens* type (Model II);
- (iii) the probability of being associated with at least one alleged human right abuse of the *non jus cogens* type (Model III);
- (iv) the probability of being associated with at least one *direct* alleged human right abuse (Model IV);
- (v) the probability of being associated with at least one *indirect* alleged human right abuse (Model V).

For each dependent variable we estimate the following Probit model:

$$\begin{split} &P\left(\textit{ABUSE}_i\right) = \beta_0 + \beta_1 \; \textit{CSR}_i + \beta_2 \; \textit{CSR_EXPERIENCE}_i + \beta_3 \; \textit{AGE}_i + \beta_4 \; \textit{SIZE}_i + \beta_5 \; \textit{D_SERVICES}_i + \beta_6 \\ &D_\textit{ENERGY_EXTRACTIVE}_i + \beta_7 \; \textit{D_TOYS}_i + \beta_8 \; \textit{D_FOOD}_i \; + \beta_9 \; \textit{D_CHEMICALS}_i + \beta_{10} \; \textit{D_PHARMA}_i \\ &+ \; \beta_{11} \textit{D_TIME_1990} + ... + \beta_{26} \; \textit{D_TIME_2005} \end{split}$$

P(ABUSE_i) is the probability that MNCi has been associated with an alleged human right abuse. As discussed above, the dependent variable will change according to the type of abuse, leading to the estimation of five different models.

 CSR_i is a dummy variable assuming value 1 if CSR is present and 0 otherwise – it takes a value of 1 for all the years since the year of adoption until 2006;

CSR_EXPERIENCE_i, is measured as the number of years since CSR adoption by the MNC_i.

Among firm level control variables we have included AGE_i as the age of the MNC_i and $SIZE_i$ as the size the MNC_i, which is proxied by the average number of workers in the period 1990-2006. We also include in the model several sectoral dummies, to control for some of the well-known industry effects. In particular, we control for those sectors where abuses have been documented by earlier studies, such

as the energy and extractive industries (*D_ENERGY_EXTRACTIVE*_i) (Papaioannou, 2006; Wright, 2008; Drimmer, 2010; Slack, 2011); the toy industry (*D_TOYS*_i) (Roloff and Aßländer, 2010); and the chemical (*D_CHEMICALS*_i) and pharmaceutical (*D_PHARMA*_i) industries (Leisinger, 2005; Brice, 2008; Wise, 2009). We also control for the effect of the food industry food industry (*D_FOOD*_i) and service industry (*D_SERVICES*_i), where we expect MNCs to have a lower probability, if compared to MNCs in other industries, to be associated with human rights abuses. In our sectoral dummy we include a range of services such as Insurance, Banking, Consulting; Retail; Lodging; Real Estate; Media; Advertising; Restaurants; Health care and Tourism.

Finally, we insert a time dummy to control for the time trend (D_TIME). This control is necessary because the number of reported abuses may increase over time (see also Figure 2) due to a time trend caused by the higher level of availability of information about alleged abuses that we experience over time, thanks to both the internet and the massive reporting work undertaken by different agencies and NGOs. In this sense, our analysis is extremely conservative as it controls for the fact that the increases in alleged abuses may be due to the effect of a higher probability of abuses being reported over time. On this basis, we expect sixteen coefficients of time dummies to increase over time (i.e. $\beta_{11} < \beta_{12} < ... < \beta_{25} < \beta_{26}$).

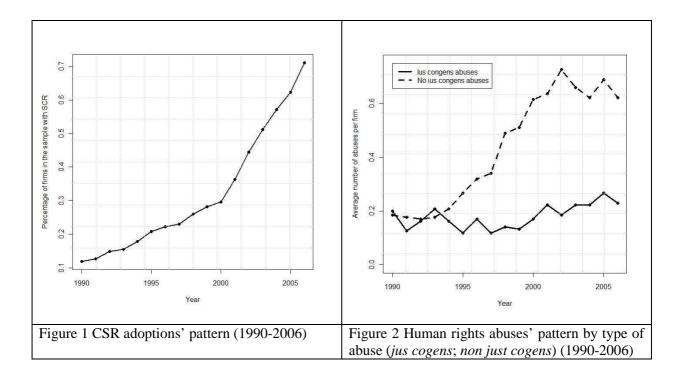
The expected sign of β_1 is ambiguous, as discussed in Section 2.2.1. It is important to remark that in the estimations we do not control for endogeneity. This means that in the case of a positive sign of β_1 , the correct interpretation is not necessarily that CSR has made abuses more likely, but rather that MNCs with a higher likelihood of committing abuses have adopted CSR in the past as a way to window dress their malfeasances. What we would take home if the β_1 is positive is that MNCs that have adopted CSR have higher probability of being associated with alleged abuses, irrespective of the motivation for adopting. The expected sign of β_2 is negative for Models I-IV. As discussed in Section 2.2.2, MNCs with higher experience in CSR should have become more capable of dealing with human rights issues and this should curb the likelihood that they get associated with alleged abuses. We do not expect a negative and significant sign for β_2 in Model V, as discussed in Section 2.2.3.

4. Empirical results

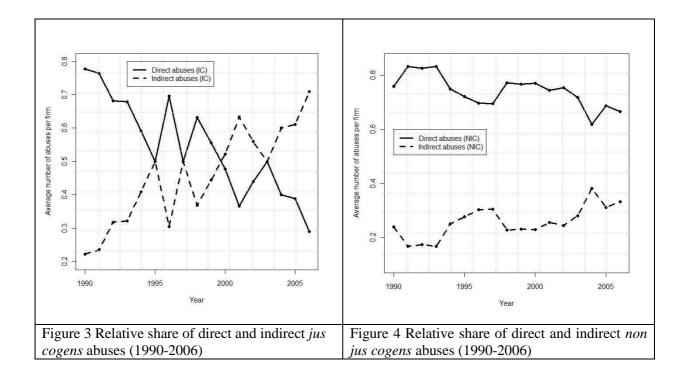
4.1 CSR and alleged human rights abuses over time

In this section we will show the evolution over time of CSR adoption and human rights abuses. Figure 1 shows that there is an increase in CSR adoption over the period 1990-2006, particularly after the year 2000. This result is to be expected and it is in line with earlier evidence about the growing importance of CSR for corporate strategy (among many others see: World Bank, 2003; Kitzmueller

and Shimshack, 2011). Figure 2 shows how *jus cogens* abuses (straight line) have increased only slightly from 1990 to 2006, whereas a major increase in *non jus cogens* abuses is observed (dotted line), particularly after 1995. As discussed in Section 3.1, it is possible that part of this growing trend is due to the fact that the reporting of this type of abuses has increased in the 1990s thanks to the ICT revolution. However, it still remains that as CSR adoption increases through time, so does the evidence of alleged human rights abuses by MNCs. This calls for at least a low effectiveness of CSR in preventing abusing behaviour of firms. We return on this point later in the analysis.



Also interesting is the fact that over time we observe a shift in the type of human rights abuses. Figure 3 shows that, in 1990, direct abuses of the *jus cogens* type accounted for about 80 per cent of total *jus cogens* abuses, while this percentage was reversed in 2006, with indirect abuses of the *jus cogens* type accounting for 70 per cent of the abuses, and direct abuses of the same type covering the remaining 30 per cent. The same pattern is also found for *non jus cogens* abuses (Figure 4) with indirect abuses becoming relatively more frequent over time. We guess that such a pattern is the result of the process of outsourcing and globalization occurred in the considered period, but an analysis of the geographical pattern of the abuses is out of the scope of the present paper.



4.2 Estimations results

Results of the estimations are reported in Table 2. In all estimates we calculate robust standard errors for the presence of heteroschedasticity in the residuals of estimates.²¹ We report two statistics for the goodness of fit, the pseudo R² proposed by McFadden (its version adjusted for the number of coefficients) and the pseudo R² proposed by Nagelkerke.²² Both statistics are in the range [0,1] and the goodness of fit increases with the statistics. The estimate of the Probit model with the probability of a MNC committing any type of human right abuse is reported in Model I and it shows that firms adopting CSR have a higher and statistically significant probability of being involved in alleged human rights abuses (the coefficient for *CSR* is positive and significant). This is consistent with earlier studies arguing that MNCs use CSR as a pure marketing, window dressing tool, essentially to maintain high reputation while continuing business-as-usual (see, e.g., Enoch, 2007). The most plausible interpretation of this coefficient is therefore that firms choosing CSR are generally more prone to make abuses. However, our analysis does also show that, as we expected, the probability of committing an abuse of any type decreases with CSR experience (the coefficient of *CSR_EXPERIENCE* is negative and statistically significant).

Among firm-level control, we find that older firms have a higher probability of being involved in human rights abuses (the coefficient for AGE is positive and significant) and so are larger firms (SIZE has positive sign). This evidence is consistent with the fact that older and larger firms may have

_

In all estimates the studentized Breusch-Pagan test rejected at 1% statistically significance level the null hypothesis of no heteroschedasticity in the residuals. In the calculation of robust standard errors we use heteroskedasticity-consistent estimation of the covariance matrix of the coefficient estimates in Probit model based on the very common methodology by Verbeek (2008, Chapter 4).

See Verbeek (2008) for more details on these two statistics. A very short guide to pseudo R² can be found here: http://www.ats.ucla.edu/stat/mult_pkg/faq/general/psuedo_rsquareds.ht.

accumulated a bigger volume of operations worldwide and may therefore be more likely to generate more abuses. The coefficients of the sectoral dummies are also quite revealing. As expected, the coefficient for *D_ENERGY_EXTRACTIVE* and *D_CHEMICALS* is positive and significant, which means that MNCs in the energy and extractive industries, as well as in the chemical industry, are more likely to be associated with alleged human rights abuses than MNCs in the remaining sectors. Consistent with our expectations, the coefficient for *D_SERVICES* is negative and significant, whereas it is also negative and significant the coefficient for *D_TOYS*. Finally, the time dummies show the expected downward trend (see Appendix 3). The overall goodness of fit is satisfying with pseudo R² ranging from 0.18 to 0.30, which means that explanatory variables included in the regression explain from 18% to 30% of total sample variance.

In Models II-III we estimate *jus cogens* and *non jus cogens* separately. As concerns Model II, we find that having or not adopted a CSR initiative does not relate to the probability of committing abuses of *jus cogens* type; nor do we observe a significant learning process that reduces the probability of abusing over time (the sign for *CSR_EXPERIENCE* is negative but not significant). In contrast, for *non jus cogens* abuses (Model III) both coefficients are significant: MNCs adopting CSR are more likely to be involved in alleged human rights abuses (the coefficient for *CSR* is positive and highly significant), while the coefficient for *CSR_EXPERIENCE* is negative and highly significant, showing that the more MNCs experience with CSR the more they are able to handle human rights and to curb the likelihood of being involved in abuses. This result is consistent with theories of learning and innovation (Nelson and Winter, 1982; Bell and Pavitt, 1993) and with theories of innovation in MNCs (Marin and Bell, 2006), from which we draw to argue that the adoption of CSR principles is likely to involve a learning and cultural change process that is cumulative and may require years to be completed.

However, the result that this learning process does only occur for alleged *non jus cogens* abuses is puzzling. One possible interpretation is that *non jus cogens* type of abuses include a wider variety of rights if compared to *jus cogens* ones. As discussed in Section 2.1, the latter include violations to right to life or slavery (see Appendix 1), while the former span from workers' discrimination, to violations of the right to education, housing or living in a wealthy environment, to cite but a few. Furthermore, *non jus cogens* abuses are much more frequent than are abuses of the *jus cogens* type (see Table 1). It is therefore possible that MNCs find it easier to intervene and change their routines as to hold control on some of the *non jus cogens* abuses, than it is to control the more severe and extreme accidents that often lead to violations of the *jus cogens* type. A related plausible interpretation is that *jus cogens* abuses may be more frequent in sectors where the gains at stake are incommensurable and likely to last for decades or centuries (such as e.g. the exploitation of a mine). Hence, it is possible that MNCs pursuing these lucrative opportunities cannot help but be complicit in *jus cogens* abuses. The sign of

the coefficients of sectoral and time dummies are in line with those observed in Model I, with the exception of the chemical and pharmaceutical industries. Firms in the latter show a higher propensity to be involved in alleged *jus cogens* abuses (the coefficient for D_PHARMA is positive and significant in Model II and negative and significant in Model III). Examples of these abuses include experimentation activities and testing of medicaments that have lead to the death of people. In contrast, MNCs in the chemical industry are more likely involved in alleged abuses of *non jus cogens* type, as reflected by the coefficient $D_CHEMICALS$ that is negative and significant in Model II and positive and significant in Model III. Most of the abuses committed by the chemical MNCs in our database are of environmental contaminations that have violated people rights to live in a healthy environment and workers' discriminations. In Model III, we also find negative coefficient for D_FOOD , which is significant at 10%.

Models IV and V estimate the probability of direct and indirect human rights abuses respectively. As for the previous models, we observe that MNCs that have adopted CSR are more likely to be involved in both alleged direct and indirect human rights abuses: the coefficient for CSR is positive and significant in Model IV (but only at 10%) and in Model V (at 1%). In contrast, the coefficient for CSR EXPERIENCE is negative and statistically significant only in Model IV, while it takes a positive value in Model V, although it looses significance. This means that while CSR experience reduces the probability of MNCs being involved in alleged direct human rights abuses, the same does not hold for indirect abuses. This result is in line with our expectation about the externalization of human rights abuses to third parties. Over time, MNCs adopting CSR may have become progressively more aware of the importance of reducing those human rights abuses that are *directly* associable to them. One motivation is that MNC committing to "save the world" through their CSR initiatives are likely to spoil their reputation and credibility vis a vis stakeholders if they engage systematically over time in direct human rights abuses. Hence, this justifies an investment and effort to try to reduce the probability of committing direct abuses. However, MNCs may not be equally willing to renounce to the gains that certain types of abuses generate and thus they may strategically decide to externalize abuses to third parties. This would be in line with the positive sign of the coefficient for CSR_EXPERIENCE in Model V. Finally, as concerns the control variables, differences with respect to earlier models are found for AGE (older MNCs are less likely to commit indirect human rights abuses) and for *D_CHEMICALS* and *D_PHARMA*, where MNCs are more likely to be associated with direct abuses (coefficients are both positively and significant), than with indirect abuses, possibly because operations in these two industries are likely to be characterized by high levels of vertical integration, if compared to other industries in general. In Model V, the coefficient for D_FOOD is negative and strongly significant.

To sum up, CSR seems to be associated with a higher likelihood of abuses, while CSR experience plays a role in reducing the probability of direct human rights abuses, but not of indirect abuses. Among the salient results of the control variables, we find that MNCs in the service industry are less likely to be associated with human rights abuses, which is explained by the fact that, compared to manufacturing activities, services may be less likely involved in accuses of environmental degradation and contamination, as well as in violations of worker's rights, given the relatively higher status of certain service sector's workers (especially in the case of consultancies, banking, insurance and lodging industries) vis a vis manufacturing plants' workers. In line with prior evidence, we find support for the fact that MNCs in the energy and extractive industries are likely to commit abuses (Papaioannou, 2006; Wright, 2008; Drimmer, 2010; Slack, 2011). In addition, we systematically find that MNCs in the toys industry are less likely to be involved in alleged abuses. In contrast to recent anecdotal evidence – Mattel being a case in point (Roloff and Aßlander, 2010) – our evidence points at the fact that MNCs in this industry may be particularly cautious about not spoiling their reputation given the highly sensitive nature of their final market. In line with our expectations is also the sign for the coefficient of the food industry dummy, which is always negative and it is significant for non jus cogens and indirect abuses. We consider the food industry to be one of those where customers may be particularly sensitive to corporate misconduct, and where customers need to trust the company that feeds them and their family. This is particularly important in light of the recent anti-GMO and organic food movements, which have given public prominence to the importance of food quality and food companies' legitimacy (Wilson, 2010). On these grounds MNCs in this industry may be particularly careful of not being associated with abuses or any corporate misconduct that can spoil their reputation. Finally, it is worth mentioning that chemical and pharmaceutical MNCs turn out to be more likely involved in direct abuses, rather than indirect one, which, as said, is consistent with the fact that operations in such sectors are rather vertically integrated and may generate a lower involvement of third parties in the production process, if compared to other industries.

Table 2 Estimates of the Probit models (robust)

	Model I		Model II		Model III		Model IV		Model V	
	(Any type)	(Any type) (Jus cogens)			(Non jus cogens)		(Direct)		(Indirect)	
	Coefficient Si	g.	Coefficient Sig	g.	Coefficient	Sig.	Coefficient	Sig.	Coefficient	Sig.
(Intercept)	-1.14E+04 **	**	-2.07E+04 **	**	-9.89E+03	***	-1.60E+04	***	-1.40E+04	***
CSR	1.93E+03 **	4	8.98E+02		2.45E+03	***	1.27E+03	*	3.49E+03	***
CSR_EXPERIENCE	-4.26E+01 **	<	-8.28E+00		-4.73E+01	**	-6.87E+01	**	3.19E+01	
AGE	1.58E+01 **	<	2.51E+01 **	*	8.26E-01		3.71E+01	***	-1.74E+01	**
SIZE	5.25E-02 **	*	4.59E-02 **	*	3.68E-02	***	4.37E-02	***	3.30E-02	***
D_SERVICES	-5.96E+03 **	**	-2.05E+03 **	•	-6.23E+03	***	-3.84E+03	***	-3.88E+03	***
D_ENERGY_EXTRACTIVE	4.34E+03 **	*	8.14E+03 **	*	3.26E+03	***	8.60E+03	***	2.85E+03	**
D_TOYS	-1.17E+04 **	*	-3.95E+04 **	*	-1.10E+04	***	-7.83E+03	**	-4.44E+04	***
D_FOOD	-2.22E+03		-2.16E+03		-3.45E+03	*	1.48E+03	}	-9.55E+03	***
D_CHEMICALS	1.23E+04 **	**	-5.55E+03 **	•	1.43E+04	***	1.66E+04	***	-922E+03	***
D_PHARMA	2.26E+02		3.95E+03 **		-5.77E+03	***	4.00E+03	**	-4.47E+04	***
D_TIME	YES		YES		YES		YES		YES	
N. Obs.	2295		2295		2295		2295		2295	
Pseudo R ² adjusted (McFadden)	0.1810		0.165		0.173		0.200		0.139	
Pseudo R ² (Nagelkerke)	0,301		0.259		0.280		0.314		0.225	

Note: *** sign at 1%; ** sign at 5%; * sign at 10%.

5. Conclusions

We are currently observing an apparent paradox. On the one hand there is growing evidence about corporate misbehaviour and MNCs violations of human rights. On the other, these same MNCs are showing an unprecedented level of commitment to "save the world" through their CSR initiatives and investments. In this scenario, how much does CSR contribute to curb human rights abuses of the largest worldwide MNCs? This question has been at the centre of interest of scholars from different disciplines and yet, to date, most of the discussion has been normative and philosophical, while very little empirical analysis has been undertaken to illuminate this question. In this paper we try to bring this discussion a step ahead by contributing to the literature in two ways.

First, we hope to have opened up a new stream of studies in the empirical analysis of the impact of business on human rights. We are aware that this is not an easy terrain. As a start, the quantification of human rights and human rights abuses requires an operationalization process that is fraught with difficulties, both because human rights are an inherently qualitative concept, and because data about human rights abuses only partially reflect the reality of worldwide abuses. Even with this caveat, we cannot ignore the fact that an unprecedented body of evidence has recently become available thanks to the work of reporting agencies, NGOs, and other civil society actors, and there is a lot of work ahead of us to use these data for informing normative studies. This study is just a first step into this process and it follows prior attempts to quantify human rights, at different levels and units of analysis (Claude and Jabine, 1986; Wright, 2008, among others). We are also aware that our analysis has methodological limitations that we hope to overcome in future works. We have used a very rough measure of CSR, which does not account for the nuances in the conception and implementation of this concept at corporate levels. Further works may want to include a more sophisticated measure of it. Furthermore, our dataset makes an effort to cover the most important manufacturing and service sectors, but it necessarily leaves out others, which we hope other studies of this genre may include. Our estimations do also fall short in controlling for endogeneity in the choice of adopting CSR. However, on the empirical and conceptual side, we are much more interested in showing whether firms that have adopted CSR are subsequently involved in human rights abuses and it matters very little whether the relationship can be bi-directional. We know from CSR research that MNCs adopt CSR both defensively (i.e. after having abused) or proactively (in view of an abuse), what we did not know is whether such an adoption is associated with lower probability of abuses, a result that we do not find in our analysis. Finally, our model does not control for the countries where the alleged abuses have taken place, which we know to be a very important driver of abuses. We plan to extend our analysis in this direction in the next future.

Our second contribution is to normative studies of CSR and human rights. As the debate between advocates and opponents to CSR continues to be hot, we believe that large-scale empirical analysis

can help to bring the debate to a new phase. Our study shows that CSR is indeed a tool used to cover corporate malfeasance, as opponents to CSR have argued for years, but it does also over time reduce the likelihood that business firms commit human rights abuses. On the one hand, evidence is consistent with the existence of a learning process that takes place over the years – a process that makes abuses less likely over time, at least for those abuses that are directly attributable to the firm. This is in line with the expectations of scholars arguing in favour of CSR as a self-regulatory tool (Rivoli and Waddack, 2011). On the other hand, we remain puzzled by the fact that this learning process may have a flip side: firms seem to learn how to deal with human rights abuses within their headquarters and subsidiaries, but they at the same time learn how "outsource abuses" to third parties. In other words, since renouncing to the gains that can be obtained by taking decisions that may result in an abuse may undermine profits, managers may have had to learn how to keep these lucrative opportunities by externalizing them to other actors, whose violations are not necessarily easily associable to the externalizing firm. If this result will be corroborated by future studies, then, the normative implications are huge. It could discredit CSR as a soft-law approach to human rights, along with bringing up in the agenda of human rights scholars the importance of monitoring and regulating corporate complicity.

Acknowledgements

Luisa Nardi and Emanuele Sommario have been extremely valuable sources of advice on international law and business & human rights issues. We are greatly indebted to them for sharing their time and knowledge with us. We would also like to thank Lucia Marchi, Francesco Morelli and Chiara Naldi for their support in the collection of data, and Francesca Pancotto for facilitating the access of some of the firm-level data. This research is entirely self-funded, among other things because public research in Italy is currently underfinanced. Usual disclaimers apply.

References

Bartlett, C., and Ghoshal, S. (1989) Managing Across Borders: The transnational solution, Boston: Harvard Business School.

Bell, M., Pavitt K. (1993) Technological accumulation and industrial growth. Industrial and Corporate Change 2: 157-211.

Birkinshaw, J. (1997) Entrepreneurship in multinational corporations: The characteristics of subsidiary initiative. Strategic Management Journal, 18(3), pp. 207–229.

Blanton S.L., Blanton R.G. (2009) A sectoral analysis of human rights and FDI: does industry type matter? International Studies Quarterly, 53: 469-493.

Blomstrom, M. Globerman S., Kokko A. (2001). The Determinants of Host Country Spillovers from Foreign Direct Investment. London: Palgrave.

Brice A. (2008) A guide to major chemical disasters worldwide, ICIS.com, www.icis.com/Articles/2008/10/06/9160653/a-guide-to-major-chemical-disasters-worldwide.html (Last accessed 5th June 2011).

Brown D.L., Woods N. (2007) Making global self-regulation effective in developing countries, Oxford University Press, Oxford.

Cassel D., (2001) Human rights and business responsibilities in the global marketplace, Business Ethics Quarterly, 11 (2): 261-274.

Claude R.P., Jabine T.B. (1986) Editors introduction to the Symposium: Statistical issues in the field of human rights, Human Rights Quarterly, 8 (4): 551-566.

De Schutter O. (2006) Transnational corporations and human rights, Hart Publishing, Oxford Portland, Oregon.

Drimmer J., (2010) Human rights and the extractive industries: Litigation and compliance trends, Journal World Energy Law & Business, 3 (2): 121-139.

Dunning, J. H. (1993). Multinational enterprises and the global economy. Wokingham, Berkshire.

Englehart N.A. (2009) State Capacity, State Failure and Human Rights, J. of Peace Research, 46 (2): 163-180.

Enoch, S. (2007) A Greener Potemkin Village? Corporate Social Responsibility and the Limits of Growth', Capitalism Nature Socialism, 18 (2): 79 — 90.

Eroglu M. (2008) Multinational enterprises and tort liabilities. An interdisciplinary and comparative examination, Edward Elgar, Cheltenham, UK.

Fombrun CJ., Gardberg NA., Barnett ML., (2000)Opportunity platforms and safety nets: Corporate citizenship and reputational risk, Business and Society Review, 105 (1): 85-106.

Friedman M. (1970) The social responsibility of business is to increase its profits, New York Time Magazine, September 13, pp. 32, 125.

Gereffi G., Korzeniewicz M (Eds.) (2004), Commodity chains and global capitalism. London: Praeger.

Ghoshal, S. and Bartlett, C. (1990): 'The Multinational Corporation as an interorganizational network', Academy of Management Review 15 (4): 603-625.

Giuliani E. (2008) MNCs and patterns of local knowledge transfer in Costa Rican High-Tech industries, Development and Change, 39 (3): 385-407.

Holzmeyer C. (2009) Human rights in the era of neoliberal globalization: The Alien Tort Claims Act and grassroots mobilization in Doe vs. Unocal, Law & Society Review 43 (2): 271-304.

Human Rights Council, (2008), Promotion and protection of all human rights, civil, political, economic, social, and cultural rights, including the right to development. Protect, Respect and Remedy: a Framework for Business and Human Rights, Report of the Special Representative of the Secretary-General on the issue of human rights and transnational corporations and other business enterprises, John Ruggie, A/HRC/8/5.

Javorick, B.S. (2004). Does Foreign Direct Investment Increase the Productivity of Domestic Firms? In Search of Spillovers through Backward Linkages. American Economic Review, 94 (3): 605-627.

Karnani A., (2011), CSR Stuck in a Logical Trap, A response to Pietra Rivoli and Sandra Waddock's "First they ignore you...: The time-context dynamic and corporate responsibility," California Management Review, 53 (2): 105-111.

Kinley, D., Tadaki, J. (2004) From Talk to Walk: The Emergence of Human Rights Responsibilities for Corporations at International Law, Virginia Journal of International Law, 44 (4): 934-5.

Kitzmueller M., Shimshack J. (2011) Economic Perspectives on Corporate Social Responsibility, Journal of Economic Literature (forthcoming).

Kobrin SJ., (2009), Private political authority and public responsibility: transnational politicts, transnational firms, and human rights, Business Ethics Quarterly 19 (3): 349-374.

Kokko, A. (1994). Technology, markets characteristics, and spillovers, Journal of Development Economics, Vol. 43, 279-293.

Lall S., Narula R. (2004) Foreign Direct Investment and its Role in Economic Development: Do We Need a New Agenda? European Journal of Development Research, 16: 447–464.

Leisinger KM. (2005) The corporate social responsibility of the pharmaceutical industry: Idealism without illusion and realism without resignation, Business Ethics Quarterly, 15 (4): 577-594.

Margolis J.D., Elfenbein H.A., Walsh J.P. (2007) Does it pay to be good? A meta-analysis and redirection of research on the relationship between Corporate Social and financial performance., Harvard University Working Paper.

Marin, A., Bell, M. (2006). Technology Spillovers from Foreign Direct Investment (FDI): an Exploration of the Active Role of MNC Subsidiaries in the Case of Argentina in the 1990s. Journal of Development Studies, 42 (4): 678-697.

Meyer W.H. (1998) Human rights and international political economy in third world nations. Multinational corporations, Foreign Aid and Repression, Praeger.

Monshipouri M., Welch CE., Kennedy ET., (2003) Multinational Corporations and the Ethics of Global Responsibility: Problems and Possibilities, Human Rights Quarterly 25: 965–989.

Nelson, R.R., Winter, S.G. (1982). An Evolutionary Theory of Economic Change. Belknap Press of Harvard University Press, Cambridge, MA.

Orakhelashvili A. (2008), Peremptory Norms in International Law, Oxford Monographs in International Law: Oxford, UK.

Papaioannou A-M. (2006) The illegal exploitation of natural resources in the Democratic Republic of Congo: A case-study on corporate complicity in human rights abuses, in De Schutter O. (ed.) Transnational corporations and human rights, Hart Publishing, Oxford Portland, Oregon (263-286).

Pillay N. (2009) The corporate responsibility to respect: a human rights milestone, Annual Labour and Social Policy Review, UN Human Rights Council, June.

Porter ME., Kramer MR., (2011) Creating Share Value. Harvard Business Review; 89 (1/2): 62-77.

Prahalad C.K. (2010) The fortune at the Bottom of the Pyramid. Eradicating Poverty through profits. Wharton School Publishing. Revised and Updated 5th Anniversary Edition, New Jersey, (original version: 2004).

R Development Core Team (2011). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. ISBN 3-900051-07-0, URL http://www.R-project.org/.

Ratner S.R. (2001) Corporations and Human Rights: A Theory of Legal Responsibility, The Yale Law Journal, 111 (3), pp. 443-545.

Rivoli P., Waddock S. (2011) First They Ignore You...: The time-context dynamic and corporate responsibility," California Management Review, 53 (2): 87-104.

Roloff J., Aßländer SM., (2010), Corporate Autonomy and Buyer–Supplier Relationships: The Case of Unsafe Mattel Toys, Journal of Business Ethics 97:517–534.

Scherer AG., Palazzo G. (eds), (2008), Handbook of research on global corporate citizenship, Edward Elgar Publishing Ldt., Cheltenham: UK.

Scherer AG., Palazzo G., (2007), Toward a political conception of corporate responsibility: business and society seen from a Habermasian perspective, Academy of Management Review 32 (4): 1096-1120.

Shum PK., Yam SL., (2011) Ethics and law: Guiding the invisible hand to correct corporate social responsibility externalities, 98: 549-571.

Slack, K. (2011), Mission impossible? Adopting a CSR-based business model for extractive industries in developing countries. Resources Policy, doi:10.1016/j.resourpol.2011.02.003.

Smeets R. (2008) Collecting the pieces of the FDI knowledge spillovers puzzle, The World Bank Research Observer, 23 (2):107-138.

Spar DL. (1998) The spotline and the bottom line. How multinationals export human rights, Foreign Affairs 77 (2)7-12.

Spar DL. (1999) Foreign Investment and Human Rights, Challenge, 42 (1): 55-80.

Spar DL. La Mure LT (2003) The Power of Activism: Assessing the impact of NGOs on global business, California Management Review 45 (3): 78-101.

Taggart, J. H. (1998) Strategy shifts in MNC subsidiaries. Strategic Management Journal, 19, pp. 663–681.

Teraya K., (2001), Emerging Hierarchy in International Human Rights and Beyond: From the Perspective of Non-derogable Rights, European Journal of International Law, 12 (5): 917-941.

UNCTAD (2010) World Investment Report, UN Geneva.

Verbeek M. (2008), A Guide to Modern Econometrics, John Wiley and Sons, New York.

Waddock S. (2008), Corporate responsibility/corporate citizenship: the development of a construct, in Scherer AG., Palazzo G. (eds), 2008, Handbook of research on global corporate citizenship, Edward Elgar Publishing Ldt., Cheltenham: UK: 50-73.

Webley S., Wernern A., (2008), Corporate codes of ethics:necessary but not sufficient, Business Ethics: A European Review, 17 (4): 405-415.

Wells L. (1998) A wolf in sheep's clothing: why Unocal should be liable under US law for human rights abuses in Burma, Columbia Journal of Law and Social Problems, 35, 1998-1999: 35-71.

Wilson A. (2010) The demand for healthy eating: Supporting a transformative food "Movement", Rural Sociology, 75 (4): 584-600.

Wise D. (2009) Split 2nd Circuit Revives Nigerian Families' Claims Against Pfizer Over Drug Tests, New York Law Journal, February 02, www.law.com/jsp/article.jsp?id=1202427913646&slreturn=1&hbxlogin=1 (Last accessed 5th June 2011).

World Bank (2003) Race to the top: Attracting and enabling global sustainable business. Business Survey Report, The World Bank Group • Corporate Social Responsibility Practice, Washington DC.

Wright M., (2008), Corporations and human rights. A survey on the scope and patterns of alleged corporate-related human rights abuses, Working Paper for the Corporate Social Responsibility Initiative, n. 44, Cambridge MA, JF Kennedy School of Government, Harvard University.

APPENDIX

Appendix 1: On the definition of Human Rights

By the term "Human Rights" we refer to International Human Rights Law, which is the set of standards negotiated and agreed by governments as deserving international recognition as human rights. International human rights law is a relatively recent body of International Law, mostly developed after the birth of the United Nations, in 1945. The first international document to contain a list of human rights was the Universal Declaration of Human Rights (UDHR) adopted in the form of a resolution by the UN General Assembly in 1948 "as a common standard of achievement for all peoples and all nations". The UDHR recognized human rights as universal, inalienable, indivisible and interdependent. However, two separate covenants evolved in the following years on civil and political rights (International Covenant on Civil and Political Rights, 1966) and on economic, social and cultural rights (International Covenant on Economic, Social and Cultural Rights, 1966). The two Covenants - both entered into force in 1976 - together with the UDHR and the two Optional Protocols to the ICCPR, form the International Bill of Human Rights, some of whose provisions are also considered nowadays as being rules of international customary law. A number of other human rights treaties were adopted in the framework of the UN, among which the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW – 1979); the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (CAT – 1984); the Convention on the Rights of the Child (CRC – 1989); the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families (ICPRMW – 1990). Moreover, human rights treaties and instruments for their enforcement have been adopted by some of the regional inter-governmental organisations that States have formed. Among these we can remember the African Charter on Human and Peoples' Rights (1981), adopted by the Organisation of African Unity; the American Convention on Human Rights (1969), adopted by the Organisation of American States; the European Convention for the Protection of Human Rights and Fundamental Freedoms (1950), adopted by the Council of Europe.

List of Civil and Political Rights

- Right to self-determination of peoples
- Freedom from discrimination
- Right to an effective remedy for violations of rights
- Right to life
- Freedom from torture and from cruel, inhuman or degrading treatment or punishment
- Freedom from slavery and servitude
- Right to liberty and security of the person
- Freedom from imprisonment due to debt
- Freedom of movement
- Right to equality before the law
- Right to fair trial
- Right to privacy
- Freedom of thought, conscience and religion
- Freedom of opinion and expression

- Right to peaceful assembly
- Freedom of association
- Right to marry
- Right to vote and to participation in public affairs
- Right to a nationality

List of Economic, social and cultural rights

- Right to self-determination of peoples
- Freedom from discrimination
- Right to work
- Right to fair conditions of work
- Right to form and join trade unions
- Right to strike
- Right to social security
- Right to protection of the family
- Freedom of children and youth from economic exploitation and from harmful and dangerous work
- Prohibition of child labour below a certain age-limit set by law
- Right to an adequate standard of living
- Right to food
- Right to housing
- Right to be free from hunger
- Right to health
- Right to education
- Right to take part in the cultural life and benefit from scientific progress
- Right to protection of intellectual property

List of Jus Cogens violations

- Arbitrary deprivation of life
- Torture and other cruel, inhuman or degrading treatment
- Slavery
- Prolonged arbitrary detention
- Forcible suppression of the right of peoples to self determination
- Summary executions
- Forced disappearances
- Genocide
- Systematic racial discrimination
- Acquisition of territory by force
- *Refoulement* (Deportation to countries where the person faces arbitrary deprivation of life, torture or ill-treatment)
- War crimes
- Aggression (in inter-state relations)

The list of *jus cogens* violations is based on Orakhelashvili (2008). We are aware that there are other classifications of jus cogens violations and this is a subject of current debate.

Appendix 2A List of industries

Advertising; Aerospace & Defense; Appliance; Automotive & transport; Banking; Beverages; Chemicals; Consulting; Cosmetics; Electronics; Energy & water; Food; Health care; Insurance; IT; Lodging; Media; Metals & mining; Optical; Pharmaceuticals; Real estate; Restaurants; Retail; Tires; Tobacco; Tourism; Toys; Wood and Pulp & Paper products.

Appendix 2B List of firms in the dataset

Accenture Ltd	CSC Computer Sciences Corp.	Mattel Inc.
Accor	CVS Corp.	Maytag Corp.
Agnico-Eagle Mines Ltd.	Daimler AG	McDonald's
Ahold (Royal) NV	Deloitte Touche Tohmatsu	Medco Health Solutions, Inc.
AIG (American Int. Group)	Disney (Walt) Co.	Merck & Co., Inc.
Alliance Boots ex-Unichem plc.	Dover Corp	Metro AG
Allianz AG	Dow Chemical	Michelin
Allied Domecq plc.	DSM	Microsoft Corp.
Altria ex-Philip Morris Co.	EADS	Mittal Steel
Amazon.com Inc.	Electrolux	Motorola Inc.
AMD (Advanced Micro Devices)	Electronic Data System Corp.	Nestlé SA
Apple Computer Inc.	Ernst & Young	Northrop Grumman Corp.
Aramark Corp	Essilor International SA	Novartis AG
Arcelor SA	Exxon Mobil Corp.	Omnicom Group Inc.
Asahi Breweries Ltd.	Fannie Mae	Pfizer, Inc.
Avon products, Inc.	Ford Motor Co.	PriceWaterhouseCoopers
AXA	General Motors Corp	Procter & Gamble, Co.
BASF AG	Georgia Pacific	Publicis Groupe SA
BAT (British American Tabacco)	Gillette Co.	Pulte Homes Inc.
Bayer AG	Glencore International AG	RJ Reynolds Tobacco Co.
Beiersdorf	Goodyear Tire & Rubber	Roche Holding
Blue Cross/Blue Shield	Hasbro Inc.	Samsung Electronics Co., Ltd.
Boeing Co.	Heineken NV.	SCA (Svenska Cellulosa AB)
Bosch-Siemens Hausgeräte GmbH	Hilton Hotels Corp.	Shell Oil
BP plc	Hoya	Sodexho Alliance
Bridgestone Corp.	HSBC Holdings	Sony Corp.
Brunswick Corp.	IBM	Starwood Hotel & Resort
Bushnell Performance Optics	Imperial Tobacco Group plc	Stora Enso Oyj
Cadbury plc	Indesit (ex-Merloni Elettrodomestici)	Sumitomo Rubber Industries
Cardinal Health Inc.	Ineos	Tesco
Cargill Inc	ING Groep	Thomas Cook Group Ltd.
Carlson Wagonlit Travel	InterContinental Hotels Group PLC	ThyssenKrupp Stahl
Carnival Corp.	International Paper Corp.	Toshiba Corp.
Carrefour SA	Interpublic Group of Companies	Total SA
Celesio AG Ex-Gehe AG	Japan Tobacco	Toyota
Centex Corp.	Johnson & Johnson	Toys "R" Us Inc.
ChevronTexaco Corp.	JP Morgan Chase & Co.	TUI (Touristik Union Int.)
Citigroup Inc.	JTB Corp	United Technologies Corp.
Coca Cola Co.	KB Home Corp.	UnitedHealth Group
Colgate-Palmolive Co.	Kraft Food Inc	Vistakon
Columbia HCA Healthcare Corp.	Lennar Corp.	Volkswagen AG
Compass Group plc	Lockheed Martin Corp.	Wal-Mart Stores
Conagra Inc.	L'Oréal	Weyerhaeuser Co.
Continental AG	Luxottica Group	Whirlpool Corp.
Countrywide	Marriott International Inc.	Yum! Brands, Inc

Appendix 3 Estimated time dummies

Year	Model I	Model II	Model III	Model IV	Model V
1990	-3,51E+02	9,19E+01	-5,74E+02	-4,37E+02	-2,13E+02
1991	-4,70E+02	-8,76E+01	-6,87E+02	-4,37E+02	-4,54E+02
1992	-4,06E+02	1,28E+02	-6,92E+02	-4,00E+02	-3,10E+02
1993	-2,76E+02	2,15E+02	-5,92E+02	-2,63E+02	-2,55E+02
1994	-2,48E+02	1,32E+02	-4,30E+02	-2,74E+02	-1,40E+02
1995	-4,42E+02	-8,83E+01	-4,78E+02	-5,07E+02	-1,62E+02
1996	-3,15E+02	9,70E+00	-4,07E+02	-3,81E+02	-1,19E+02
1997	-3,81E+02	-3,46E+01	-4,10E+02	-4,68E+02	-7,74E+01
1998	-2,62E+02	-4,45E+01	-3,06E+02	-3,10E+02	-1,34E+02
1999	-1,94E+02	1,66E+01	-1,96E+02	-2,67E+02	-3,12E+01
2000	2,35E-01	6,36E+01	-1,49E+01	-8,37E+01	2,52E+00
2001	-6,64E+01	1,76E+02	-1,44E+02	-1,52E+02	5,93E+01
2002	2,94E+01	4,61E+01	1,54E+01	3,50E+01	2,62E+01
2003	5,64E+01	1,04E+02	1,68E+01	4,73E+01	5,41E+01
2004	-5,29E+01	9,24E+01	-3,75E+01	-8,21E+01	4,43E+01
2005	1,06E+02	2,89E+02	1,39E+02	1,70E+02	1,11E+02