HAL
open science

International labour standards and product differentiation

Michela Limardi

▶ To cite this version:

Michela Limardi. International labour standards and product differentiation. 2008. halshs-00586062

HAL Id: halshs-00586062
https://shs.hal.science/halshs-00586062v1

Preprint submitted on 14 Apr 2011

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

PARIS SCHOOL OF ECONOMICS
ÉCOLE D'ÉCONOMIE DE PARIS

WORKING PAPER N° 2008 - 58

International labour standards and product differentiation

Michela Limardi

JEL Codes: J81, K31
Keywords: International trade, labour standards, corporate social responsibility, product differentiation

PARIS-JOURDAN SCIENCES ECONOMIQUES
LABORATOIRE D'ECONOMIE APPLIQUÉE - INRA

48, BD JOURDAN – E.N.S. – 75014 PARIS
TÉL. : 33(0) 1 43 13 63 00 – FAX : 33 (0) 1 43 13 63 10
www.pse.ens.fr

CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE – ÉCOLE DES HAUTES ÉTUDES EN SCIENCES SOCIALES
ÉCOLE NATIONALE DES PONTS ET CHAUSSÉES – ÉCOLE NORMALE SUPÉRIEURE

International Labour Standards and Product Differentiation

Michela Limardi*

November 8, 2008

Abstract

In the last decades the interaction between Labour Standards and International Trade has assumed new importance.

We use an incentive based-approach to assess the efficiency of trade policy instruments and private schemes for the promotion of international labour standards in Southern Firms. We show that trade policy instruments may implement minimum standards. On the other hand, we find that private schemes may overcome minimum standards if and only if there is an exclusive contract between the MNE and the Southern firm, due to *free-riding* effect.

Keywords: international trade, labour standards, product differentiation, corporate social responsibility.

1 Introduction

The interaction between labor standards[1] and International trade has assumed new importance in the last decades.[2]

During the Uruguay Round of Multilateral Trade Negotiations, United States and France tried to insert in the GATT agenda the labor standards. It is argued that lower labor standards in a country give an advantage to the firm on the international market, because the price of the good does not reflect entirely the

*Phd Student, Paris School of Economics

[1] Labor standards are defined as minimal rules for workplace conditions and outcomes imposed by legal mandate.

[2] In the last years the volume of strikes and demonstrations in the shoe and clothes factories throughout Asia has notably increased. Nike and Reebok, the most important athletic shoe manufacturer, has been accused by human rights groups of running overseas sweatshops. Clothing makers also have come under fire for conditions at factories elsewhere in Asia. Reebok was obliged to publish on the web the list of its subcontractors; nike faced a strike in the vietnamese plant of its taiwanese sub contractor accused of non respecting the vietnamese minimum wage.

social cost of production. This is considered an "unfair" source of comparative advantage[3].

The argument related to the harmonization of labor standards to solve the "unfair" competition presumes that labor standards (LS) are defined as absolute and universal. However, if we accept the idea that LS are matter of the domestic country, it means that national level of LS may depend on country's stage of development and per capita income. This means that LS would at the end reflect domestic collective preferences.[4]

Indeed, the issue related to the international labor standards has an economic and moral component.

The economic argument concerns the concept of "social dumping".[5] This is a practice performed not just by firms but also by the government to create a competitive cost advantage for their own industries or to attract Multinational Enterprises (MNEs). Labor unions and human rights activists in the North, argue that these practices cause several problems to workers of the North since a lot of firms delocalise in developing countries.

The moral argument refers mainly to the fact that low wages and labor standards violate human rights of workers in developing contries.

Policy makers and labor unions in Europe and in the United States propose as a solution what are defined "social clauses". They refer to tariffs on import goods from countries that don't respect minimal working conditions.They consider these tariffs a tool to prevent a "race to the bottom" of labor standards in the North.[6] On the other hand developing countries consider these kinds of measures as a sort of "protectionism".

In the present paper, we use an incentive based-approach to assess the efficiency of trade policy instruments and private schemes for the promotion of international labour standards in Developing Countries. We focus on the incentive of the firm[7], operating in low standards countries, to comply with labour standards.

The basic idea is that it exists a political demand from people in industrialised countries for higher LS in developing countries. It means that there are consumers who are willing to pay a premium price for good produced under

[3] The concept of "unfair trade" is related to the idea of unfair competition, that is the ability of a firm to hold on to an industry is compromised by the fact that one rivals abroad do not carry the same burden. (Bhagwati, 1995)

[4] Historical evidences show how the level of labor standards increases with the economic development of a country. In US the "Fair Labor Standard Act", the first federal law that established a minimum wage, guaranted a maximum amount of work's hours and prohibit most employment of minors in "oppressive child labor" was enacted in 1938.

[5] Social dumping refers to a situation in which firms, that are located in countries where labor standards are lax, produce and export goods at excessively low prices by using cheap labor under poor working condition (Corden and Vousden, 2001).

[6] The idea is to give back the money gained from tariffs by funding aid programs for Developing Countries.

[7] We focus on the firm in developing countries and not on the government since: a)firms are directly affected by these kinds of measures, b)government in the south are often weak, there is corruption, lack of security, weak bureaucracy and monitoring system, c)national mandatory law are often not well defined and this make difficult the enforcement mechanism.

acceptable working condions ("responsible consumers"), private investors who care on ethical issue ("socially responsible investing") and government or institutions (such as European Union) who gives financial aid in order to induce firms to comply with labour standards (e.g. financial contribution in Corporate Social Responsability activities of the firm). [8]Indeed, it seems it exists a market for LS (Freeman, 2003) and firms could produce these kinds of "social good" in order to satisfy this demand. Since producing "social good" implies higher cost of production, a firm has an incentive to produce them if and only if benefits are higher than costs. Since we are in the case of asymmetric information (i.e. consumer does not know the quality of the good), benefits are higher than costs if and only if the firm can signal the true quality to the consumer (positive publicity) or if it exists the probability to be monitored and discovered (negative publicity).

Nelson (1970), Darby and Karni (1973) developed an useful categorization between search, experience and credence goods. Search attributes are those for which consumers can assess their quality before purchasing them (i.e. clothes, shoes). Experience attributes are those for which consumers cannot assess the quality until they have purchased and consumed them (i.e. cars). Credence attributes are those for which consumers can assess the quality neither before nor after purchase and use them. Therefore, the goods attributes are not evident since refer mainly on the production process.

Indeed, consumers and public authorities, in the wealthier and more industrialized countries, have increasely pay attention to the production process of a good such as its environmental impact, ethical content (Auriol, Schilizzi, 2003).

We assume all along the paper that a firm, that operates in the South, can choose three levels of labour standards: operate under the minimum standard (Core Labour Standard-CLS)[9], comply with CLS or overcomply with CLS. For overcomplying with CLS, we mean comply with safety conditions, living wage, minimum hours of work, etc. Obviously, the choise of the firm will depend on the cost and benefit derived by its own decision.

First we want to assess the efficiency of trade policy instruments for the promotion of labour standards in Developing Countries, by using an incentive based-approach. We consider the case where the choice of a cashless firm is comply or not comply with CLS. In this case the "quality" of the good may be signaled if and only if there is a monitoring mechanism which provides addi-

[8] "Socially Responsible Investment" (SRI): SRI assets rose more than 324 percent from $639 billion in 1995 (the year of the first Report on Socially Responsible Investing Trends in the United States) to $2.71 trillion in 2007. During the same period, the broader universe of assets under professional management increased less than 260 percent from $7 trillion to $ 25.1 trillion (2007 Report on SRI in USA, Social Investment Forum).

Some proposals from International Community for the promotion of Core Labour Standards: new GSP scheme from 2002 for EU, negative import tariffs.

[9] Core Labour Standards are the standard recognized as universal and absolute by the ILO Declaretion of 1998: no forced labor; freedom of assosiation; no discrimination at the workplace; elimination of child labor. Note that undercomplying with CLS is often the case in several developing countries. Even if almost all developing countries signed ILO Fundamental Conventions, there is an inefficient enforcement mechanism within the country. Therefore it is finally possible for a firm to operate under CLS.

tional information on the firm's behaviour[10] or if an external event occurs, i.e. probability to be detected violating LS. Indeed, since CLS are minimum legal standards, we assume that a cashless firm does not have private incentives to invest in the project and to signal the quality of the good. In this first part, we assume that the North gives a transfer to a Southern firm in order to finance the project "improving working conditions in the South".[11] We analyze the moral hazard question raised by the fact that firms in the South control LS, through its own effort. The optimal financial contract under asymmetric information is characterized. Finally, we analyse the role of NGO, as intermediar, in providing additional information on the firm behaviour in order to achieve the optimal contract.

Then, we want to investigate the role of private schemes for the promotion of labour standards. We assume that the firm has an initial asset that invests in order to differentiate its product, by complying with "social standards", i.e. living wage[12], hours of work, safety and healthy condition. Since we deal with credence goods and production cost increase with "quality", firm has an incentive to differentiate its product if and only if it can signal the true quality to the consumer.

However, let us consider a firm that operates in the South. The firm can a)sell its products in the domestic market; b)enter in the international market; c)produce for a MNE as a subcontractor; d)being a part of joint venture or being owned by an other firm (vertical or horizontal integration).

If the firm produce for the domestic market, since we have assumed that there is not a domestic demand for higher labour standards in the South, firm will never comply with LS if weak enforcement institutions persist.

If a firm enters in the international market firm will comply with CLS if and only if its benefit are higher than the costs.[13]Melitz (2003) shows how, with heterogeneneous firms, the exposure to trade will induce only the more productive firms to enter the export market. These firms have more informations, expertise capacity, skill labour, technology. Preferential import tariffs, such as Generalized System of Preferences (e.g. "GSP plus") may reduce the cost of export and induce more firms to enter in the international market and therefore comply with CLS.

Indeed, in the North it exists an increasing demand of "social good", i.e. goods produced under acceptable working conditions.[14] Firm that want to

[10] An NGO may use "negative publicity" by providing information to consumers associations, investor; writing annual reports to the political authority or institution, who has invested money in "ethical project".

[11] This transfer from the North is represented by increasing investments, such as "socially responsible investing", the willingness of consumers to pay a premium price for a "fair good"; subsidies given to firms for "ethical program" by political authorities in the North.

[12] Note that the decision of the firm is a continum of choice. Indeed, in developing countries it is more usefull to talk about average wage rather than minimum wage.

[13] Notice that all along the paper we consider the level of labour standards within the firm as an endogenous variable. This assumption is justified by the fact that in several developing countries firm can under comply, comply or overcomply with CLS due to the weak enforcement mechanism.

[14] The "2003 Corporate Social Responsability Monitor" estimate that the amount of con-

"capture" these consumers has to invest additional resources, in order to differentiate its products. Auriol and Schilizzi (2003) show that a firm producing credence goods has to pay a sunk cost in order to be a credible seller. This sunk cost covers the cost of signaling the "quality" and creates a barrier to entry in the market. This implies an oligopoly market. But a limit of this analysis is the assumption of a perfect certification process, such that "labeling" transforms a credence good in search good. This is feasible in the case of a single firm (or vertical/horizontal integrated firm) that invests in the project and where it exists a credible certification mechanism (private or public). This is what characterizes the "fair trade market" or "organic farming" market. These markets base on a third party that certifies the process of production.

We analyse the interesting and less treated case of a Southern firm that produce for a MNE as a subcontractor. What does it imply?

A subcontractor can work for more than one MNE at the same time. Therefore, a subcontractor does not have any direct benefit from "reputation effect" of the MNE, achieved by signaling the "quality" of the good (e.g. "green goods", "ethical goods").

We consider the case where a wealthier firm of the North (e.g. a MNE), that subcontracts with a Southern firm, has private benefits to invest in "ethical project". We assume the existence of an "Ethical Firm"[15], that monitors the subcontractor of MNEs in order to increase its market share by damaging to the "reputation" of the MNE. We formalize the action of this "ethical firm", as an external shock that can reduce the profits of the MNE. This external shock is the probability that the subcontractor is discovered cheating. In this case, MNE can be damaged by a negative publicity.

In the present analysis, the investment of the MNE involves limiting the damage to the Brand that can be inflected by "negative publicity". The idea is how approach the risk-management side of Corporate Social Responsibility.

The paper is organized as follows. In the second section we analyse the issue of Labour Standards in Developing Countries and recent proposals by the International Community to improve working conditions in the South. In section three we present the model. First, we analyse which are the incentive of a firm operating in the South to comply with core labour standards. The model is related to two literatures. The first is related to the principal-agent literature where monitoring additional information on the agent helps to solve moral hazard problem (Harris-Raviv, 1979; Diamond, 1984). The other related literature is that based on financial intermediation under asymmetric information. Then we examine the incentives of a Northern firm that subcontracts with a Southern

sumer that take into account the social responsability in their purchaise decision rose from 36% in 1999 to 62% in 2001 in Europe.

[15] In the last years "ethical" products have notably increased, in reaction to bad working conditions imposed to workers in textile indutry, especially in the production of sport clothes and shoes. Some Brands in this "new" sector: Timao, Mestres, Misericordia, Tudo Bom, Vejas and Ethletic. The word "ethical" refers to different practices, since for the time being it does not exist an international label in this sector. However, these "ethical" firms follow essentially fair trade criteria: right wage, stable relation with the suppliers and compliance with workers rights as claimed by ILO.

firm to invest in "ethical project", in order to differentiate its products. We analyse the optimal contract in an advese selection problem. The paper ends with conclusions and questions for further research.

2 Labour Standards in developing countries

In 1998 it was signed the ILO Declaration on Fundamental Principles and Rights at Work. The International Labour Conference declares that " all Members, even if they have not ratified the Fundamental Conventions[16], have an obligation arising from the fact of membership in the Organization to respect, to promote and to realize, (...), the principles concerning the fundamental rights which are the subject of those Conventions, namely: freedom of association, the elimination of all forms of forced or compulsory labour, the effective abolition of child labour; the elimination of discrimination in respect of employment and occupation". Therefore what is called "Core Labour Standards" (CLS) became a component of universal human rights.

The frequently used expression "social standards" extends far beyond the core labor standard, in that it includes requirements such as health care, job security, limitations on hours of work and minimun wage. These labor standards are less universaly accepted.

Therefore how can we limit the notion of human rights? Are labor standards universal or is a matter to be decided by sovreign nations?

There is a low domestic demand for higher LS in developing countries, weak bureaucracy and monitoring system.

Labor unions in the South are not yet well organized or they are often illegal organizations in the country[17]. The low demand of higher labor standards in the South is also related to the high rate of unemployment[18]. Moreover, a lot of developing countries have inefficient national monitoring system, due to their weak bureaucracy and lack of resources.

All these difficulties in the South contribute also to create a sort of monopsonistic power in the labor market. In such a case firm can pay its workers below the marginal value product of labor. Jinji (2005) considers such a case as the source of "social dumping".

[16] The Fundamental Conventions are: C. 29 and C.105 on forced labour; C.87 and C.98 on freedom of association; C.100 and C.111 on Discrimination; C.138 and C.182 on Child Labor.

[17] However in some developing countries unions are a force for democracy and the protection of human rights. For instance, since the late 1990s, Zimbabwe's trade unions have been the main opponent of Robert Mugabe's dictatorship. Unions were also a leading force in the campaign against apartheid in South Africa (Freeman 2003).

[18] In many Least developed countries, discrimination discourages female employment outside of sectors requiring less-skilled work in low-wage industries such as clothing, footwear, and toys. The result is a large supply of female workers in that sector, which lowers price and increases production and export of clothing relative to what would happen otherwise (Freeman, 2003).

Several Developing Countries have ratified almost all Fundamental ILO Conventions[19]. However, what does it mean define core labor standards as mandatory international standards if does not exist an International legal Institution able to enforce them?

Indeed, even if a Country does not have a complete system of national law on labour standards, it has to comply with CLS due to the ILO Declaration of 1998[20]. However, the ILO has not a specific legal instrument able to enforce the compliance with CLS. It exists other complaint procedures but they are not effective. In the last decades, some industrialized countries, as European Union, have introduced "autonomous measures to suspend development co-operation or Generalized System of Preferences (GSP) benefits in cases of grave and persistent violation of Core LS"[21].

There are different proposals to raise the level of LS in Developing Countries, without conversely affecting their economic development. The European Union, for instance, in order to avoid a "race to the bottom" in respect of labour standards, adopts a policy of incentives in the form of additional tariff preferences. This policy has been implemented in the framework of the EU's Generalised System of Preferences (GSP)[22]. It concerns positive instruments used to induce Developing Countries to raise the level of LS. This kind of meseaures do not make provision for sanctions (negative instrument). However, these special incentives arrangements for the protection of labour standards are available upon request. Therefore, in order to benefit of these special tariffs, the Country has to make a specific request that is afterward carried out by the Commision. In order to conform to the requirement, it is sufficient that the "substance of the standards concerned (core labor standards) is incorporated in the domestic legislation". Is it really a sufficient condition? In many developing countries, even if these standards are incorporated in the domestic legislation, employers often do not comply with them. Moreover, we have to keep in mind that a lot of workers in developing countries are engaged in employment without written contracts and this represents a strong limit to the enforcement and monitoring of LS. Indeed, having no written contracts means that workers may be unaware of their rights and responsibilities and perceived as engaged in an informal rather than a formal working relationship[23]. Indeed, in many developing countries the

[19] On average, 149 of the ILO's 175 members have ratified each of the eight core coventions, and 86 have ratified all of them (Freeman, 2003).

[20] For instance, as reported by an ILO study: "Indonesia has an impressive record ratifying international conventions. Although Indonesia is responsible to the International community for implementing the agreements it ratifies, it is unclear whether the substance of agreements is not binding domestically unless it is incorporated into a specific law.

[21] Communication from the commission to the Council, the Europea parliament and the economic and social Committee, :"Promoting core labour standards and improving social governance in the context of globalization", COM(2001)416 final.

[22] The "Generalised System of Preferences" was recommended by UNCTAD in 1968. According to this system, industrialised countries would grant autonomous trade preferences to all developing countries. The EU started to adopt GSP scheme in 1971. The GSP may concern duty free access or tariff reduction it depends if there are sensitive or non-sensistive products.

[23] ILO Report (2006): " The Regulation of Domestic workers in Indonesia".

informal sector represents a large sector of the economy. The informal sector encompasses largely unrecognized, unrecorded and unregulated small-scale activities. It includes small enterprises with hired workers, household enterprises using family labour and the self-employed.[24] This is an important issue that has to be better analysed.

A more frequentely used practice by industrialised countries, is to insert the "recognition and promotion of social right" into bilateral trade agreements.[25] The EU has also increased the financial support for the engagement of the private sector (firm and non-governmenal organization) in the promotion of social standards, as a support to what is called "fair trade". An other proposals recently suggested by a group of NGOs is to apply a negative import tariffs for firm operating in low standards countries. A negative tariff may be defined as a form of subsidy. Therefore this may represent a positive incentive to induce Southern firm to improve working conditions of its employees.

3 Basic model

3.1 Political demand of CLS

The model is based on the assumption that people in the North are averse to low labor standards in the South. For the sake of simplicity we assume that in the North firms fully comply with high LS. This aversion of low labor standards in the South can be captured by the increasing attention to the "ethical issue" in the North, represented by increasing investments, such as "socially responsible investing"; the willingness of consumers to pay a premium price for a "fair good"; subsidies given to firms for "ethical program" by political authorities in the North.

In this first part we assume that the choice of a Southern firm is to: a) comply with CLS, b) not comply with CLS. We assume that complying with CLS requires an initial investment. A cashless firm complies with LS if and only if benefits are higher than costs. We assume that higher labour standards imply high cost of production $\bar{C}$, while low LS imply low cost of production $\underline{C}$. Therefore costs of production $C \in \left\{\underline{C}, \bar{C}\right\}$.A cashless firm in order to invest in this project need external financing.[26]We consider a two-period model with

[24] As underlined by ILO's World Employment Report 1998-99, the informal sector is a major provider of urban jobs. "In Africa employment accounts for over 60% of total urban employment". Among individual countries for which statistics are available, the figures reach 57% in Bolivia, 56% in Tanzania, 53% in Colombia, 48% in Thailand and 46% in Venezuela.

In the analysis that follows we refer mainly on the formal sector. The relationship between informal sector and labor standard is an other important issue.

[25] Such a practice could have negative impacts on Developing Countries since they are obliged to raise the level of LS in order to preserve trade relations. It is still an exogenous way to raise the level of LS in the South.

[26] This assumption is made in order to consider the usual case where a profit maximising firm tend to keep low labour standards in order to minimize cost of production. Recall that we have assumed that comply with LS implies higher cost of production.

three parties: firm, investors and an intermediar. All parties are risk neutral.[27] In the first period lending takes place and in the second period there is the realization of the project and the repayment to the uninformed investor if the project succeds. The project yields R with probability p and 0 with probability $1-p$. This probability of success depends on the decision of the firm, i.e. comply (C) or not comply (NC). The stochastic output is related to the charachteristics of the good, i.e. credence attributes. It is p_c if firm comply and p_n if firm does not comply, where $p_c > p_n$. In the case of perfect observability, the outcome is not stochastic, because the quality of the good is perfectly observable by the principal. In the case of imperfect observability of the outcome, the probability to have a successfully project are:

$$\begin{aligned} prob\,(R/NC) &= p_n > 0 \\ prob\,(R/CO) &= p_c > 0 \end{aligned}$$

A contract between the North and the Southern firm specifies a given transfer T to the firm if the return is R and 0 otherwise. The contract is $\{0, T\}$.[28] In our analysis, the principal can be identified with a political authority or an institution (i.e. the governement of the North) who finances "ethical program"[29]; while the intermediar can be identified with an NGO who has the task to monitor the firm.

Since complying with CLS implies higher cost of production, if firm does not comply with, it can produce at a lower cost. Notice that this condition derive from the fact that consumer cannot assess the "quality" of the good. A "social good" is charachterized by credence attributes. Indeed, a firm, in the absence of right incentive or outside monitoring may deliberately reduce the probability of success in order to enjoy lower cost of production. The moral hazard problem is related to the asymmetric information between the principal (i.e. the North) and the agent (i.e. the firm) on the decision made by the firm.

3.1.1 Full observability

We consider first the case where the outcome of the project "improving working conditions in the South" is perfectly observable by the North. In this case an optimal contract is a contract where the North cover the total cost of the project T; $R = 0$ and $T = 0$ if the project fail; if the project succed the firm has $R - \bar{C} + T > 0$. The return of the project for the North is $z > T$, where z is a form of "moral Return" for the North. This condition derives by the assumption

[27] All along the paper, the risk neutrality assumption implies that the firm even if it is made liable if it does not comply fully with CLS, it prefers to run the risk of bankruptcy rather than pay an insurance. The firm is the residual claimant.

[28] Notice that if $R = 0,\ T = 0$.We assume limited liability for the agent.

[29] Let consider for instance the European Union who decides to apply preferential import tariffs for firms operating in low standards countries in order to give a positive incentive to the firm to comply with CLS.

that the North is averse to poor working conditions in the South. The North gives a transfer T to the South in order to improve working conditions and increase its own utility.While the return $R - \bar{C} + T > 0$ can be considered as a "reputation effect" for the firm. A firm that fully comply with CLS continues to enjoy preferential import tariffs and benefit from an increasing consumers demand and outside investment.[30]

We assume that the decision of the firm to comply with CLS depends on the probability to have the transfer T .We define π the probability to be discovered dishonest and $(1 - \pi)$ the probability to be not discovered.

The project is financed if and only if

$$R - \bar{C} + T \geq R - \underline{C} + (1 - \pi)T \tag{1}$$

$$R - \bar{C} + T \geq 0 \tag{2}$$

$$z \geq T \tag{3}$$

where (1) is the Incentive compatible constraint of the firm, (2) is the participation constraint of the firm and (3) is the non-negative profit condition for the uninformed investor.If there is perfect observability of the outcome $\pi = 1$, therefore by substituting (3) in (1), we get the necessary condition to have the project financed:

$$T \geq \bar{C} - \underline{\mathrm{C}} \tag{4}$$

where T is the transfer given to the South and $\bar{C} - \underline{\mathrm{C}} > 0$ represent the differential cost of the firm to comply with CLS.

Lemma 1 *A project is financed if and only if the transfer T cover the total cost of the project $\bar{C} - \underline{C} > 0$. With perfect observability of the outcome, the incentive for the firm to finance the project and to comply fully with CLS is that the transfer given by the North is higher than the differential cost of complying with CLS.*

[30] Recall that we have assumed that people in the North are averse to poor working conditions in the South, and therefore their utility increase if poor working condition decrease.

3.1.2 Imperfect observability

In this second part we analyse the case where the outcome of the project is observable just by the firm. Indeed, this is the case in the reality since a "social good" has credence attributes. The consumer cannot assess the quality of the good neither befor nor after purchase it. Therefore, let assume that condition (4) is not satisfied. This is represented by the fact that the cost of fully comply with CLS (i.e. the opportunity cost to be diligent for the firm) increases since the output is never observable by the principal. But we assume that $p_c R + z > T$. Therefore, it still exists a positive return in participating into the project.

$$T < \bar{C} - \underline{C} \;\; but \;\; p_c R + z > T$$

With imperfect observability of the outcome, it is always feasible for the firm to claim that he has fully complied with CLS, and keep the total transfer of the North, equal to T, and produce at a lower cost $\underline{C}$.[31] The assumption of imperfect observability comes from the characteristics of the outcome. Recall that the project financed is "improving working conditions in the South" and it refers to the process of production of the good (i.e. credence attributes).

By assuming imperfect observability of the outcome by the investor, if the choice of the firm is to Comply with CLS (C) or Not Comply with CLS (NC) and the choice of the investor is Invest (I) or Not Invest (NI), the expected payoff matrix of this game is thus

$$\begin{array}{cccc} & I & NI \\ C & p_c R - \bar{C} + T; \; -T & p_c R - \bar{C} \; ; \;\; z \\ NC & p_n R + T - \underline{C}; \;\; -T & p_n R - \underline{C} \;\; ; \; 0 \end{array}$$

It is immediate to check that it exists a unique Nash equilibrium in dominant strategy, that is $\{NC, NI\}$.

In this case, if (4) is not satisfied but $p_c R + z > T$, the North has to pay an additional cost in order to induce the firm to fully comply with CLS. We assume that the North decides to cover the cost of monitoring the firm in order to solve the observability problem. The investor can use a direct monitoring or delegates it to an intermediair. Monitoring firm implies an investment that costs $m > 0$, in order to cover the physical cost of monitoring K, e.g. conduct a workplace inspection. We assume that for the North is too expensive to introduce a monitoring technology (i.e. direct monitoring), because he does not have informational expertise. Let consider an investor who lives in the North who want to monitor a firm that operates in the South. In this case it is more efficient (i.e. reduce cost of monitoring) to monitor on behalf of others. We assume also that firms cannot monitor other firms, because they have insufficient

[31] Firm can cheat since the outcome is not observed by the uninformed investor.

capital to be credible monitors. Therefore, we assume that investor hires an agent, e.g an NGO, in order to monitor the firm and reduce its opportunity cost to be diligent. We assume that the intermediary is a risk neutral agent with initial wealth equal to zero.[32] We assume that the NGO has the same objective of the North, i.e. improving working conditions in the South. For the present analysis other assumptions on the "hired agent" behaviour are not necessary.[33] We focus on the role of a monitoring mechanism in order to solve the observability problem.We assume also that monitoring by the intermediar is not infallible, that is if the firm is monitored it is detected as disohnest at some probability π. By covering the cost of monitoring, the North can catch the firm if it cheats, in this case the firm is punished and receives 0.[34]

As we have explained above, the realization of R depends on the decision of the firm. Obviously, is more probable to be recognized as "social firm" if firm fully comply with CLS. Since the random output is observed just by the firm, the North must give incentives to the firm in order to be diligent.

Therefore, firm will always choose not comply with CLS, since it is feasible and the outcome is observable just by it. In order to be incentive compatible for the firm to choose to comply with CLS, we introduce a non-pecuniary penalty ϕ at the end of period 1, if firm is discovered been cheating by the NGO. By following Diamond (1984), for non-pecuniary penalty we mean a penalty where the firm's loss is not enjoyed by the investor. Indeed, we consider the non-pecuniary penalty the "negative publicity" made by the intermediary against the firm. This "negative publicity" implies a reduction of firm's profit.

The timing of event is summerized below:

t_1	*monitoring*	t_2
contract takes place		$p_c R + T - \bar{C} > 0 \; if \; firm \; C$
		$p_n R - \underline{C} - \phi < 0 \; if \; firm \; NC$

[32] Indeed this is the case for NGO. The project realized by the NGO are always funded by external parties:private sector or public authorities. Therefore NGO does not have its own initial assets to invest in monitoring activities.

[33] Indeed, also for the NGO there could be some incentive compatible constraints. NGO can deliberately made inefficient monitoring in order to not solve completely the problem and keep their job. The role of NGO and the competition among them is an important issue for further research.

[34] This is a dept contract, that is no money being left to the borrower in the bad state of nature and the residual being pocketed by the lender in the good state of nature.

Since the outcome of the project is observable just by the firm, the firm can claim complying with CLS.[35] The choices of the firm still are Comply (C) or Not Comply (NC) with CLS, and now, since condition (4) is not satisfied, the choice of the investor is to Monitor (M) and Not Monitor (NM) the firm.

The expected payoff matrix of this game is:

	C	NC
M	$z-T-m,\ P_cR+T-\bar{C}$	$z-T-m,\ -\phi$
NM	$z-T,\ P_cR+T-\bar{C}$	$-T,\ p_nR-\underline{C}+T$

It is easy to see that it does not exists a Nash Equilibrium in pure strategy, since the decision of one agent causes the opposite decision of the other.

Therefore with imperfect observability of the outcome the project is financed if and only if:

$$z-T-m \geq 0 \tag{5}$$

s.t

$$p_cR-\bar{C}+T \geq p_nR-\underline{C}+(1-\pi)T-\pi\phi \tag{6}$$

$$p_cR-\bar{C}+T \geq 0 \tag{7}$$

where (5) is the non-negative profit condition of the North, condition (6) and (7) are respectively the incentive compatible constraint and the participation constraint of the firm. The NGO is an additional agent hired by the uninformed investor in order to monitor the firm. As aforementioned, we assume that the NGO has the same objective of the North, i.e. improve working conditions in the south. In this case, for the NGO is always incentive compatible to monitor in an efficient way. This assumption is justified by the fact that the NGO has initial wealth equal to 0 and by choosing high effort (i.e. using all payment m to monitor), it can in turn signal the quality of his job to other "investors" ("reputation effect") and receive increasing fundings.[36]

By solving (6), (7), and (8) with equalities (constraint are binding), we obtain:

[35] Notice that this is the opposite case of a financial contract where it is not incentive compatible for the firm to choose a repayment $z > 0$, when $z = 0$ is feasible. Indeed, in our analysis the firm has no incentive to declare $R = 0$ and therefore $z = 0$, since the repayment to the investor is the provision of this public good, and if there is not a monitoring mechanism nobody can check if the firm really contributes or not.

[36] Note that we consider NGO as an intermediary who participates in the financial contract to get a return $m-K$. But NGOs are characterized also by their "paternalistic altruism" and therefore they gain an additional satisfaction in contributing to the provision of this public good.

$$[p_n - (1-\pi)p_c]\, R = \underline{C} - (1-\pi)\bar{C} + \pi\phi \tag{8}$$

If the probability to be discovered dishonest is $\pi = 0$, we have:

$$R = \frac{\Delta C}{\Delta p} \tag{9}$$

If the probability to be discovered dishonest is $\pi = 1$, the optimal level of penalty is:

$$p_n R - \underline{C} = \phi^* \tag{10}$$

Proposition 2 *In the case of imperfect observability of the outcome, when the probability for the firm to be discovered is $\pi = 0$, the level of non-pecuniary penalty is zero, $\phi = 0$. Firm will comply iff $p_c > p_n$ (by assumption) and the return are higher than the differential cost, otherwise firm will never comply with CLS. If the probability to be discovered is $\pi = 1$, a credible monitoring mechanism requires a level of penalty such that the return of the firm of not comply with CLS is completely eliminated.*

Proof. The investor can increase the value of the penalty by some arbitrarly small $\varepsilon > 0$ and increase its return without violating both IR an IC constraints. Specifically, the investor can raise the penalty by ε such that $p_n R - \underline{C} - \phi = 0$. If the value of ϕ is lower than $p_n R - \underline{C}$, the firm still has $p_n R - \underline{C} - \phi > 0$, therefore he always chooses not comply with CLS in order to reduce the cost of production. ■

The non-pecuniary penalty, due to the altruistic behaviour of the North[37], and the fact that firm does not invest its own asset in the project determine this results.

Therefore a "credible monitoring mechanism" requires an initial invetsment, a credible institution who support it and a penalty to the firm if detected. Since monitoring has a cost m, the North will give the transfer to the Southern firm iff:

$$z \geq T + m \tag{11}$$

[37] Recall that we do not consider monetary return for the investor. The repayment z is just the utility derived by the provision of public good.

3.2 Investment in product differentiation

Suppose now that the firm has an initial asset and he has private benefit in financing the project. The project is still "improving working conditions in the South", but now a wealthier firm has private benefit in financing it. As we have shown, a cashless firm will always comply with CLS if condition (9) and (10) are satisfied. Otherwise the opportunity cost to be diligent for the firm is too high and therefore firm will never comply with CLS if there is a weak enforcement mechanism.[38]

Let consider now the case where a wealthier firm can invest its initial asset in the project in order to have higher return. We assume that investment can be undertaken at any scale I. The hypothesis of a cashless and a wealthier firm stress the relationship between the credit constraint of the firm and its compliance with LS in a developing countries. A fim that does not have enough resources to be devoted in improving working conditions of its employees get just subsidies from the North. While a firm that has enough resources can also invest its own asset in the project in order to differentiate its products.

By a differentiated good, we mean a good produced in compliance with "social standards" i.e. living wage, hours of works, safety and healthy conditions.[39] We assume now that the choice of the firm is a) comply with CLS; b) overcomply with CLS (i.e.minimum standard) that requires an additional investment. As we have explained above, for credence good, such as "social good", the private market for quality works inefficiently due to imperfect information (i.e. consumer do not know the quality of the good neither before nor after purchase them), transaction costs in acquiring and using information and externality, if the good has characteristics of public good. Caswell and Mojduska (1996) show how a quality signaling through a label can give information to the consumer and reduce the cost of intervention of the government. By following Caswell and Mojduska (1996), a firm will invest in the project if and only if it can signal the true quality to the consumer by labeling.[40]

Let now consider the compliance with LS by a firm operating in low standards countries. We focus on the interesting and not yet treated case of a Southern firm that produce for a MNE as a subcontractor.

In the last decades, several MNEs have transfered part of their production to domestic firms in developing countries.This happens especially in the manufacturing sector, where the main factor of production is unskilled labour. For instance firms as Hasbro (toys manufacturer), Nike, Adidas, GAP, etc., move their production to China and subcontract with a Chinese company. This form

[38] The existence of weak enforcement institutions in Developing Countries is the key assumption all along the paper. It increases notably the cost of comply with labour standards since with a lack of enforcement mechanism the strategy of not comply is the optimal one for a profit maximising firm.

[39] Report of the European Communities Commission. COM(2001) 416 final.

[40] The basic assumption of the model remains that people in the North are averse to low labour standards in the South. It means that there are people who are willing to pay a premium price for good produced under "good working conditions". In such a case also producers have incentives to signal high quality or to build the reputation of being a high quality producer.

of organization of the firm implies even higher cost of asymmetric information between the upward and downward supplier, than a form of vertical integration of the firm (Arrow 1975, Aghion and Tirole, 1997). However, subcontracting avoids costs of information of the host market that firm has to pay for FDI. What does it imply? A subcontractor can work for more than one MNE at the same time. This implies any specific "relationship" between a MNE and a subcontractor. The subcontractor does not have any direct benefit from "reputation effect" of the MNE, achieved by signaling the "quality" of the goods (e.g. "green goods", "ethical products"). Indeed, subcontractors produce a part of the final good or they produce for different Brands. Therefore, workers do not feel a part of the MNE, who push those contractors to cut costs and to be more and more productive.

This determines a problem of asymmetric information between the "genereal contractor" (e.g. MNE) and the subcontractor.

We want to focus our analysis on the incentives of a MNE, that subcontracts with a firm operating in low standards countries, to invest in "ethical project". The main assumption is that the subcontractor serves at the same time different "brands". Then, the MNE, who invests in the project, has to provide the right incentives to induce the subcontractor to overcomply with CLS. The menu of contract is a specific level of transfer if the subcontractor overcomply with CLS. The subcontractor can use this transfer in order to improve working conditions of its employes or keep the transfer and lie (i.e. not overcomply with CLS).

We consider a risk averse principal, i.e. a MNE, who makes a contract to a risk neutral agent, the subcontractor. To simplify the analysis we assume that the MNE has full bargaining power in determining the contract with the subcontractor and the latter has a positive reservation utility (i.e. outside opportunity). The assumption of a positive reservation utility is used in order to take into account the fact that the subcontractor can works also for other firms.

The basic idea is that, due to this increasing demand of "social good" in the North, a MNE can increase its profit by differentiating its goods and signaling the "quality" to the consumer (reputation effect). However, due to weak enforcement mechanism in the south and the outside opportunity, the subcontractor can increase its profit by keep the transfer and lie, i.e. not overcomply with CLS. Therefore, which is the cost for a MNE to invest in "ethical project" and differentiate its goods?

We assume the existence of an "Ethical Firm", e.g Oxfam, that monitors the subcontractor in order to increase its market share by damaging to the "reputation" of the MNE.[41] We formalize the action of this "ethical firm" as an external shock that can reduce profits of the MNE. This external shock is the probability that the subcontractor is discovered cheating and therefore MNE can be damaged by a negative publicity.

The subcontractor makes a profit $t-\theta c(l) \geq u$, where $c(l)$ is the cost of raising LS, t is the transfer payed by the MNE and $u > 0$ is a strictly positive reservation utility. We assume that $c' > 0$ and $c'' > 0$. The parameter θ, drawn from

[41] We assume that the "ethical firm" produce the same product of the MNE.

$\Theta = \{\underline{\theta}, \bar{\theta}\}$,is how much the subcontractor values the loss of being discovered cheating. The subcontractor attach an high value to the loss with probability p or a low value with probability $1-p$. In this case, the bad type $\underline{\theta}$ want to mimick the good type $\bar{\theta}$. Indeed, the subcontractor with an high loss value is more willing to use the transfer in order to overcomply with CLS, because if he is discovered cheating the loss may be too high.[42]

Therefore, the MNE must offer a menu of contracts before knowing which type of agent he is facing. Therefore he will compute the benefit of any menu of contracts $\{(\bar{t}, \bar{l}); (\underline{t}, \underline{l})\}$ in expected terms.

The objective function of the MNE is $V = v(l) - t$, where $v(l)$ is the monetary return of raising the level of LS (i.e. differentating its good), and t is the transfer payed to the subcontractor, i.e. the cost of raising LS. We assume $v' > 0$, $v'' < 0$ and $v(0) = 0$.

By following Freeman (2003), we assume that the incentive of a MNE to invest in "ethical project" depends on the probability to be affected by a negative publicity rather than making "positive publicity". Therefore, if the MNE invests in "ethical project", he can have negative profit with probability π (i.e. probability to not be monitored). Recall that "social goods" are "credence goods". Consumer cannot assess the quality of the good neither before nor after purchase them. Since we are in the case of asymmetric information, benefits are higher than the costs if and only if firm can signal the true quality to the consumer (positive publicity) or it it exists the probability to be monitored and discovered (negative publicity).

Notice that the decision of the MNE and the subcontractor depends on how much the subcontractor values the loss of being discovered cheating. This is true under the assumption that the outside option does not depend on the probability to be monitored. In the second part, we analyse the case by relaxing this assumption.

The presence of weak enforcement institutions in developing countries determines this results. Since there is not a "court of justice" that can enforce the contract and give punishment, this notably reduces the value that the firm attach to the loss of being discovered cheating. Therefore, when the downward supplier does not loose directly by the loss of "credibility" of the upward supplier, what matter for the principal is how much the subcontractor evaluates its loss and not the probability to be discovered. Indeed, if p decreases, it means that the probability that $\theta = \underline{\theta}$ increase and therefore the subcontractor does not have any incentive to overcomply with CLS.

3.2.1 Perfect information

In the case of perfect information the MNE will maximize its profit subject to the participation constraint of the subcontractor:

[42] If a negative publicity affect also the profit of the subcontractor, its opportunity cost to overcomply with CLS is lower.

$$\max_{(t,l)} v(l) - t \tag{12}$$

s.t.

$$t - \theta c(l) = u \tag{13}$$

By solving the maximization problem we get the first best level of l and t :

for $\theta = \bar{\theta}$

$$v'(\bar{l}^*) = \bar{\theta}\ c'(\bar{l}^*) \tag{14}$$

$$\bar{t}^{FB} = \bar{\theta}\ c(\bar{l}^{FB}) + u \tag{15}$$

for $\theta = \underline{\theta}$

$$v'(\underline{l}^{FB}) = \underline{\theta}\ c'(\underline{l}^{FB}) \tag{16}$$

$$\underline{t}^{FB} = \underline{\theta}\ c(\underline{l}^{FB}) + u \tag{17}$$

The optimal level of labour standard is where the marginal utility of the MNE equals the marginal cost of raising labour standards of the subcontractor given the parameter θ.While the optimal level of transfer has to be higher enough in order to cover the cost of raising LS and the outside option of the subcontractor.

3.2.2 Imperfect information

A strictly positive outside opportunity. Let us now consider the case of asymmetric information. The subcontractor 's participation and incentive compatible constraints, respectively for the low type and high type are:

$$\bar{t} - \bar{\theta}\ c(\bar{l}) \geq u \tag{18}$$

$$\underline{t} - \underline{\theta}\ c(\underline{l}) \geq u$$

$$\underline{t} - \underline{\theta}\ c(\underline{l}) \geq \bar{t} - \underline{\theta}\ c(\bar{l}) \tag{19}$$

$$\bar{t} - \bar{\theta}\ c(\bar{l}) \geq \underline{t} - \bar{\theta}\ c(\underline{l}) \tag{20}$$

By Revelation principle, without loss of generality, we have:

$$c(\bar{l}) \geq c(\underline{l}) \tag{21}$$

Due to asymmetric information, MNE cannot implement the first best contract. Therefore, let us derive the second best contract. MNE wants to have an optimal level of LS at a minimum cost. Therefore, we have to minimize cost in $U = \left\{ \left(\bar{t}, \bar{l}, \underline{t}, \underline{l}\right) \in R_+ \ \ / \ -\bar{t} + \bar{\theta}\ c(\bar{l}) + u = 0; -\underline{t} + \underline{\theta}\ c(\underline{l}) + \bar{t} - \underline{\theta}\ c(\bar{l}) = 0 \right\}$

The MNE's maximisation problem is then:

$$\max_{(\bar{t},\bar{l},\underline{t},\underline{l})} \qquad \left[p(v(\bar{l}) - \bar{t}) + (1-p)\left(v(\underline{l}) - \underline{t}\right)\right](1 - \pi p) \tag{22}$$

s.t

$$\bar{t} - \bar{\theta}\ c(\bar{l}) = u \tag{23}$$

$$\underline{t} - \underline{\theta}\ c(\underline{l}) = \bar{t} - \underline{\theta}\, c(\bar{l}) \tag{24}$$

Where $(1 - \pi)$ is the probability to be monitored.

Let us denote the respective multipliers of these constraints with λ and γ. Optimizing with respect to $\bar{t}, \bar{l}, \underline{t}, \underline{l}$ we obtain:

$$pv'(\bar{l}^{SB}) + (-\bar{\theta} + (1-p)\,\underline{\theta})c'(\bar{l}^{SB}) = 0 \tag{25}$$

$$(1-p)\,v'(\underline{l^{SB}}) + (p-1)\ \underline{\theta}\ c'(\underline{l}^{SB}) = 0 \tag{26}$$

$$\bar{t}^{SB} = \bar{\theta}\ c(\bar{l}^{SB}) + u \tag{27}$$

$$\underline{t}^{SB} = \left(c(\underline{l^{SB}}) - c(\bar{l}^{SB})\right)\underline{\theta} + \bar{\theta}\ c(\bar{l}^{SB}) + u \tag{28}$$

Or put it differently:

$$pv'(\bar{l}^{SB}) = \Delta\theta\,(1-p)\,c'(\bar{l}^{SB}) \tag{29}$$

$$v'(\underline{l^{SB}}) = \underline{\theta}\ c'(\underline{l}^{SB}) \tag{30}$$

If $p = 0$, the second best solution for the MNE is $\bar{l}^{SB} = 0$.If $p = 1$, MNE will choose a level of LS where $\bar{l}^{SB} = \bar{l}^*$.

Let now analyse the level of LS required for the bad type. By condition (28), if $p = 1$, we get $\underline{l}^{SB} = 0$ (shutdown policy); if $p = 0$, the level of LS in the second best framework is $\underline{l}^{SB} = \underline{l}^*$.

Finally, the level of LS chosen by the MNE (i.e. comply or overcomply with CLS) can be:

$$0 \leq \bar{l}^{SB} \leq \bar{l}^{*} \tag{31}$$

$$0 \leq \underline{l}^{SB} = \underline{l}^{*} \tag{32}$$

Therefore the level of investment in LS depends on the probability p.

While the level of transfer that the MNE has to pay to the subcontractor in order to induce the subcontractor to choose the right contract are:

$$\bar{t}^{SB} = \bar{\theta}\ c(\bar{l}^{SB}) + u$$

$\Rightarrow \bar{t}^{SB} = \bar{t}^{*}$

Therefore the MNE has to pay a transfer high enough in order to cover the opportunity cost of the subcontractor of overcomplying with CLS due to its positive reservation utility. If the outside opportunity of the subcontractor is high its opportunity cost to comply with the contract is higher and therefore the subcontractor will never overcomply with CLS. By rewriting condition (28), we get the second best level of transfer for the low type:

$$\underline{t}^{SB} = \underbrace{c(\underline{l}^{SB})}_{\text{cost for low type}} + \underbrace{c(\bar{l}^{SB})\Delta\theta}_{\text{information rent}} + \underbrace{u}_{\text{outside opportunity}} \tag{33}$$

$\Rightarrow \underline{t}^{SB} \geq \underline{t}^{*}$

We can conclude that the level of transfer depends on the investment decision in "improving wotking conditions in the South" of the MNE. If the MNE does not invest in LS, it means that $\bar{l}^{SB} = 0$, the only contract that the MNE offers is $\{\underline{t}, \underline{l}\}$.

Some concluding remarks. As aforementioned, we have assumed weak enforcement institutions in the South. We use the hypothesis of an external shock as a form of verifiability of the outcome. This is used in order to take into account the lack of a court of justice able to enforce the contract and punish the principal or the agent if they do not comply with.

Moreover, we have shown that the expected profit of the MNE does not depend on the probability to be monitored $(1 - \pi)$.The expected profit of the MNE depends on the probability to face an high or low type.

We have assumed the existence of a rival "ethical firm", e.g. NGO that produces also "social goods" for the market of the North. We have assumed that this NGO has expertice capacities to monitor Southern subcontractors. Moreover, we have assumed that he NGO monitors subcontractors in order to damage the reputation of the MNE and reduce its market share.

Proposition 3 *With a strictly positive outside opportunity of the subcontractor, the MNE will not invest in LS above the minimum standards. For p small enough, shutdown occurs even if the Inada condition $v'(0) = +\infty$ is satisfied. The presence of the rival NGO, the lack of public rule on LS in the South, increase the risk of investing in the project. The transfer that MNE has to pay is too high. The MNE will invest above the minimum standards iff p=1 and the outside opportunity equals zero. This implies that a profit maximizing firm will invest in the project if and only if it has an exclusive contract with the subcontractor.*

The main results of this first part derive from the assumption that the outside opportunity of the subcontractor does not depend on the probability to be discovered cheating. In the next section, we will analyse the same problem by relaxing this assumption.

Observable Outside opportunity conditional on external shock. Let us relax the assumption of a strictly positive outside opportunity of the subcontractor. We assume now that the reservation utility of the subcontractor depends negatively on the probability to be discovered by the NGO (i.e. probability that the external shock arrive). The basic assumption is still that the subcontractor works for different MNEs at the same time. In the previous case, we have assumed that the outside opportunity of the subcontractor is a positive constant. Now we consider the case where other MNEs might dismiss the subcontractor if he is discovered cheating (i.e.violating LS). This may reduce the value of the reservation utility of the subcontractor. Therefore, this may reduce its opportunity cost to comply with the contract.[43]

How does it affect the decision of the MNE to invest in ethical project? The MNE might share the cost of the risk of the project.

The reservation level of utility, denoted U, is defined by:

$$U = (1-p)\ \hat{t} - \hat{\theta}\ c(\hat{l}) \tag{34}$$

where $1-p$ is the probability that other MNEs dismiss the subcontractor;[44] $\hat{t}$ is an average value of transfers paied to the subcontractors and $\hat{l}$ is an average value of LS within the factory. The subcontractor will be indifferent between comply or not comply with LS if

[43] Since an investment in "ethical project" requires an initial asset, we consider in this second part a large firm. Therefore, we can assume that a large firm might know the average value of the outside opportunity of the subcontractor by making a survey on rival firms behaviour.

[44] Note this is equal to the probability that the subcontractor is of bad type.

$$\bar{t} - \hat{t} = \hat{t} - \underline{t}$$

This gives the threshold condition of t :

$$\hat{t} = \frac{\bar{t} - \underline{t}}{2} \tag{35}$$

We assume that MNE observe $\hat{t}$ by auditing.

We may consider the reservation utility has the incentive to lie for the subcontractor. This incentive is positives if others MNEs pays him even if it does not comply, i.e. $p = 0$.While the incentive to lie is negative if other MNEs do not pay him if he lies, i.e. $p = 1$.

The optimal contract of the MNE must solve the following program (P):

$$\max_{\left\{(\bar{t},\bar{l});(\underline{t},\underline{l})\right\}} p\left[v(\bar{l}) - \bar{t}\right] - (1-p)\left[v(\underline{l}) - \underline{t}\right] \tag{36}$$

s.t.

$$t - \theta c(l) \geq (1-p)\ \hat{t} - \hat{\theta}\ c(\hat{l}) \tag{37}$$

$$\underline{t} - \underline{\theta}\ c(\underline{l}) \geq \bar{t} - \underline{\theta}\ c(\bar{l})$$

By solving the program (P), we obtain the second best level of $\left(\bar{t}, \bar{l}\right)$ and $(\underline{t}, \underline{l})$. It is indexed by a superscript ES that means outside opportunity conditional on external shock.

$$pv'(\bar{l}^{ES}) = \bar{\theta}\ c'(\bar{l}^{ES}) \tag{38}$$

$$\bar{t}^{ES} = \bar{\theta}\ c(\bar{l}^{ES}) + (1-p)\ \hat{t} - \hat{\theta}\ c(\hat{l}) \tag{39}$$

$$(1-p)v'(\underline{l}^{ES}) = \hat{\theta}\ c'(\hat{l}) \tag{40}$$

$$\underline{t}^{ES} = \underline{\theta}\ c(\underline{l}^{ES}) + \Delta\theta\ c(\bar{l}^{ES}) + (1-p)\ \hat{t} - \hat{\theta}\ c(\hat{l}) \tag{41}$$

Proposition 4 *When the outside opportunity of the subcontractor depends on the probability to be discovered cheating, the incentive of MNE to invest in "ethical project" are lower than those with a strictly positive outside opportunity. The MNE has an incentive to deviate if other MNEs invest in higher LS. There is a free riding effect.*

In the previous section, we have assumed that the reservation utility of the subcontractor is a constant. It does not change with the probability that the subcontractor is discovered cheating. But now we assume that the transfer received by other "general contractors" is affected by the probability that the subcontractor is of bad type, i.e. $(1-p)$. Then, the principal has to take into account also the decision of other MNEs, in order to decide the optimal level of investment.

In this case where the risk is high and the cost is sharing by n MNEs, the MNE_1 has an incentive to free ride. Others pay the "price" to reduce the risk to be affected by negative publicity. Therefore, this reduces the incentive of the $MNE_1$to invest in higher LS.[45]

An other important result is that if MNEs cooperate, this may reduce the outside opportunity of the subcontractor to $U = 0$. Indeed, this is why "fair trade" or "organic farming" market works. The cooperation may reduce the cost of information rent and increase the "credibility" of the firm's investment in ethical project.

4 Conclusion

In the present paper we used an incentive based-approach to assess the efficiency of trade policy instruments and private schemes for the promotion of international labour standards in Developing Countries. We assumed all along the paper that a firm, that operates in the South, may choose three levels of labour standards: operate under the minimum standard (Core Labour Standards-CLS), comply with CLS or overcomply with CLS. For overcomplying with CLS, we meant comply with safety conditions, living wage, minimum hours of work. Indeed, even if almost all developing countries signed ILO Fundamental Conventions, it is possible for a firm to operate under CLS. This is due to the inefficient enforcement mechanism within the country. Therefore, the choise of the firm will depend on the cost and benefit derived by its own decision.

The basic idea is that it exists a political demand from people in industrialised countries for higher LS in developing countries. A Southern firm can produce these kinds of "social good" in order to satisfy this demand. Since producing "social good" implies higher cost of production, a firm has an incentive to produce them if and only if benefits are higher than costs. Since we are in the case of asymmetric information (i.e. consumer does not know the quality of the good), benefits are higher than costs if and only if the firm can signal the true quality to the consumer (positive publicity) or if it exists the probability to be monitored and discovered (negative publicity).

First, we analysed the role of trade policy instruments, such as preferential import tariffs, for the promotion of Core Labour Standards. We examined the contract where the North gives a transfer to the Southern firm in return for

[45] It is easy to show that even in the case of a random outside opportunity of the subcontractor (i.e. not observable by the MNE) the MNE does not change its investment decision.

labour standards raise.We studied the moral hazard question raised by the fact that firms in the South control LS, through its own effort. We characterized the optimal contract between the North and the South. We showed that trade policy instruments may implement minimum standards, by paying an additional cost in order to solve the observability problem. Indeed, a "credible monitoring mechanism" requires an initial investment, a credible institutions who support it and a penalty to the firm if detected.

Then, we investigated the role of private schemes for the promotion of "social standards". We focused on the case where a wealthier firm of the North, i.e. a MNE, want to invest in "ethical project" in order to differentiate its products. We examined the contract where the MNE gives a transfer to the Southern firm, its subcontractor, in return for labour standards raise. The basic idea is that a subcontractor can work for more than one MNE at the same time. Therefore, a subcontractor does not have any direct benefit from "reputation effect" of the MNE, achieved by signaling the "quality" of the good (e.g. "green goods", "ethical goods"). We assumed the existence of an "Ethical Firm", that monitors the subcontractor of MNEs in order to increase its market share by damaging to the "reputation" of the MNE. We formalized the action of this "ethical firm", as an external shock that can reduce the profits of the MNE. This external shock is the probability that the subcontractor is discovered cheating. In this case, MNE can be damaged by a negative publicity. We found that with a strictly positive outside opportunity for the Subcontractor, the MNE will never invest over the minimum standards. The probability that the subcontractor deviates is high due to asymmetric information between the MNE and the subcontractor and weak enforcement institutions in the South.

We considered also the case where the transfer given by other "general contractors" is affected by the probability that the subcontractor is discovered cheating. We assumed that rival MNEs terminate the contrat with the Subcontractor if it is discovered lieing. Therefore, the principal has to take into account also the decision of rival MNEs, in order to choose the optimal level of investment. We found that the MNE has an incentive to deviate if rival MNEs invest in higher LS. There is an incentive to *free ride*. It means that others pay the "price" to reduce the risk to be affected by negative publicity. Therefore, this reduces the incentive of the MNE to invest in higher LS.

Indeed, we found that private schemes may overcome minimum standards if and only if there is an exclusive contract between the MNE and the Subcontractor, due to this *free-riding* effect.

Our results put some questions on the efficiency of private schemes, such as Corporate Social Responsability, for the promotion of LS within a Southern fiirm. We focused on the case where a MNE subcontracts with firms operating in low standards countries. This type of firm organization impose higher cost of asymmetric information between the upward and downward supplier. This may explain the failure of some private initiatives to improve working conditions within Southern firms, like the Code of Conduct, labeling good. The main limit of such a private schemes is the fact that the subcontractor is not directly affected by the "reputation" of the MNE and work for different Brands at the

same time. Therefore the subcontractor has always an incentive to deviate as long as it has a strictly positive outside option. Indeed, without an effcient system of national law, a profit maximising firm will always have incentives to sacrifize working conditions of its employees in order to minimize cost of production.

The interaction between international trade and labour standards remains an important issue. Economic analysis undertaken in the 1990s was fairly optimistic on the impact of trade on labor. However empirical evidences show how trade policy may affect negatively the labor market. Therefore, more empirical research need in order to better understand which is the impact of international trade on working conditions in developing countries. An other important line of research is the role of MNEs in raising LS in Southern firms in order to have labor practices more humane and more efficient. Our therotical analysis predicts no significant impact of MNE above the minimum standards within subcontractors. Indeed, the ownership and the nature of the firm may have different impact on working conditions of the employees.[46]

REFERENCES

Aghion, P., and Tirole, J., (1997), "Formal and Real Authority in Organization", *Journal of Political Economy,* 105:1, 1-29

Auriol, E., and Schilizzi, S., (2003), "Quality Signaling through Certification. Theory and an Application to Agricultural Seed markets", *Working Paper*

Amacher, G., Koskela, E., and Ollikainen, M., (2004), "Environmentla Quality Competition and Eco-Labeling", *Journal of Environmental Economics and Management,* Vol.47, 284-306

Arrow, K., (1975), "Vertical Integration and Communication", *Bell Journal of Economics,* Vol. 6, 173-183

Basu, A., and Hicks, R., (2007), "Poverty Aversion, Relative Deprivation and the Willingness to Pay for Fair Trade Products", *Working Paper*

Blanchard, O., and Philippon, T., (2004) "The quality of labor Relations and Unemployment", *Working Paper 04-25*

Boom, A., (1995), "Asymmetric International Minimum Quality Standards and Vertical Differentiation", *The Journal of Industrial Economics, Vol.43, No. 1, 101-119*

Boyer, M., and Laffont, J., (1997), "Environmental Risks and Bank Liability", *european Economic Review, Vol. 41, 1427-1459*

Caswell, J., Mojduska, E., (1996), "Using Informational Labeling to Influence the Market for Quality in Food Products", *American Journal of Agricultural Economics,* Vol. 78, No. 5, 1248-1253.

[46] For instance, MNE may own firms (vertical or horizontal integration) or subcontract with them. In the manifacuter sector, this is a crucial difference that may explain the impact of MNE on labor in developing countries.

Commission of European Community (2001), "Communication from the Commission to the Council, the European Parliament and the Economic and Social Committee.", *COM (2001) 416 final*

Conlisk, J., and Smallwood, D., (1979), "Product Quality in Markets Where Consumers are Imperfectly Informed", *The Quarterly Journal of Economics,* VOL. 93, No.1, 1-23.

Darby, M., and Karni, E., (1973), "Free Competition and the Optimal Amount of Fraud", *The Journal of Law and Economics,* Vol. 76

Diamond, D., (1984), "Financial Intermediation and Delegated Monitoring", *The Review of Economic Studies,* Vol. 51, No.3, 393-414.

Emons, W., (1997), "Credence goods and Fraudolent Experts", *The RAND Journal of Economics,* Vol. 28, No 1, 107-119

Freeman, R., (1995), "Are Your Wages set in Beijing", *The Journal of Economic Perspectives,* Vol. 9, No 3, 15-32

Hiscox, M., and Smyth, N., "Is there Consumer Demand for Improved Labor Standards? Evidence from Field experiments in Social Labeling", *Department of Government, Harvard University.*

Holmstrom, B., and Tirole, J., (1997), "Financial Intermediation, Loanable Funds, and the Real Sector", *The Quarterly Journal of Economics,* Vol. 112, No. 3, 663-691

Horowitz, J., (1996), "Regulating Safety and Quality Standards in Food Marketing, processing, and Distribution: Discussion", *American Journal of Agricultural economics,* Vol.78, No.5, 1261-1262

Jinji, N., (2005), "Social Dumping and International trade", NBER *Working Paper.*

Kandori, M., (1992), "Social Norms and Community Enforcement", *The Review of Economic Studies,* Vol. 59, No. 1, 63-80

Laffont, J., (2001), "Enforcement, Regulation and Developpement", *Meeting of AERC, Nairobi*

Melitz, M., (2003), "The Impact of Trade on Intra-industry Reallocations and Aggregate Industry Productivity", *Econometrica,* Vol.71, No 6, 1695-1725.

Nelson, P., (1970), "Information and Consumer Behavior", *Journal of Political Economy,* Vol.78

Schmalensee, R., (1978), "A Model of Advertising and Product Quality", *The Journal of Political Economy,* Vol. 86, No. 3, 485-503.

Shapiro, C., (1982), "Consumer Information, Product Quality, amd Seller Reputation, *The Bell Journal of Economics,* Vol. 13, No. 1, 20-35

Tsou, M., Liu, J., and Cliff, J., (2006), "Export Activity, Firm Size and wage Structure: Evidence from Taiwanese Manufacutring Firms", *Asian Economic Journal,* Vo. 20, No. 4, 333-354.

Von Thadden, E., (1995), " Long-Term Contracts, Short-Term Investment and Monitoring", *The Review of Economic Studies,* Vol.62, No. 4, 557-575