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Heterogene Arbeit: Positive und Normative
Aspekte der Qualifikationsstruktur der Arbeit

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Zusammenfassung:

Based on a large cross-section of developing and developed countries, this paper investigates the nexus between globalisation and four labour standards: freedom of association and the right to bargain collectively (FACB), freedom from forced labour (FL), abolition of child labour (CL) and non-discrimination (D). The question of central interest is whether trade and foreign investment affect the level of the four labour standards. FACB and FL are measured by newly constructed indices that emphasize *de facto* government compliance. Openness is measured by various trade and FDI indicators, which range from highly aggregated to highly disaggregated ones. The empirical results suggest that trade and foreign investment are in general associated with stricter labour standards. Special government initiatives which stimulate exports and FDI do, however, have an adverse effect on labour standards, and particularly, on FACB.

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DOES GLOBALISATION AFFECT LABOUR STANDARDS? AN EMPIRICAL INVESTIGATION*

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Abstract

Based on a large cross-section of developing and developed countries, this paper investigates the nexus between globalisation and four labour standards: freedom of association and the right to bargain collectively (FACB), freedom from forced labour (FL), abolition of child labour (CL) and non-discrimination (D). The question of central interest is whether trade and foreign investment affect the level of the four labour standards. FACB and FL are measured by newly constructed indices that emphasize *de facto* government compliance. Openness is measured by various trade and FDI indicators, which range from highly aggregated to highly disaggregated ones. The empirical results suggest that trade and foreign investment are in general associated with stricter labour standards. Special government initiatives which stimulate exports and FDI do, however, have an adverse effect on labour standards, and particularly, on FACB.

JEL Classification: F16; J83

Keywords: labour standards; globalisation; trade; FDI

1. Introduction

In Japan, large corporations have started to dismantle the traditional practice of lifetime employment; in Germany, the federal government has been fighting union opposition to cuts of pension benefits; in South Korea unions strike against new legislation making lay-offs easier.[1] These apparently disparate developments in different corners of the world have one common element: some social changes that have taken place in the context of an increasingly globalising world seem to meet the opposition of certain social groups. Are these events idiosyncratic, or are they representative?

Globalisation is not really a new phenomenon[2]. What new about the "Globalisation of the last two decades" is, first, the ever-increasing trade with and investment in less developed countries[3] spurred by advances in technology, reduced administrative barriers, etc. Second, globalisation takes place in the context of higher mobility of capital and to a certain extent of high-skilled workers relative to that of low-skilled workers. This asymmetry puts the latter at a disadvantage: in contrast to capital, workers (and particularly, the low-skilled ones) cannot offset unfavourable market and social changes by "relocating" abroad. To correct for this asymmetry, governments can step in to protect labour. The question is, however, whether globalisation, i.e. the phenomenon that actually makes social protection necessary, does not make it exceedingly difficult for governments to provide this protection for whatever reasons. If the answer is in the affirmative, then the observed opposition of workers and their organisations to globalisation is not unexpected.

This paper investigates the role of globalisation for national labour standards. Since labour mobility is largely limited by national borders the nation state is still the core arena for regulation of working conditions, which differ from nation to nation. These national differences offer the internationally mobile investors the opportunity to choose

[1] s. www.icftu.org, www.kctu.org, Rodrig (1997)

[2] By many measures (e.g. share of merchandise exports in GDP, share of net capital outflows in GNP, etc) the world economy was possibly even more integrated at the height of the gold standard in the late 19the century than it is now (s. Rodrik 1997, p. 7). Further Krugman (1995) says that "It would be hard to argue that the sheer volume of trade is now at a level that marks a qualitative difference from previous experience" (s. Krugman 1995, p. 331).

[3] As a group, developing countries have become much more important in world trade – they accounted in 2001 for one-third of world trade, up from about a quarter in the early 70s with the lion's share attributed to the Asian countries such as China and India (s. IMF 2001: 1). Similar is the picture with respect to FDI: developing countries' share in total FDI inflows rose from 26% in1980 to 37% in 1997, and their share in total outflows rose from 3% in 1980 to 14% in 1997, whereby it is again the Asian countries that have received the bulk of the FDI inflows (22%) (s. IMF 1999: 2).

among different business environments. The question central to this paper is whether globalisation (defined as trade in goods and services and/or foreign direct investment) influences the level of national labour standards, and if so, in what direction. This focus distinguishes the present work. A number of previous studies have examined the consequences of globalisation for human rights, such as political and civil rights (among others, Richards,Gelleny and Sacko 2001, McLaren 1998, Henderson 1996, Meyer 1996 and 1998). Another strand of literature studies the determinants of politicians' preferences for a specific policy, predominantly for a trade policy, e.g. what economic and political factors are associated with votes in favour of/ against freer trade (Steagall and Jennings 1996, Kahane 1996, Baldwin and Magee 2000, Fordhame and McKeown 2003). Krueger (1996) is the only study in this field that is applied to labour market rather than to trade policy. He evaluates the determinants of support for legislation that would ban imports to US of goods made with child labour, and tests whether there is evidence of disguised protectionism in the demands of the USA to link labour standards to international trade. This approach of studying the voting behaviour of politicians, however, does not allow for a cross-country analysis as virtually no policy is put up for a vote in several, let alone in a large sample of, countries.

The studies that analyse the link between globalisation and labour standards look at the issue from the reversed perspective: do labour market institutions influence foreign direct investment, trade, and international competitiveness (Cooke and Noble 1998, Cooke 1997, Busse 2002 and 2003, Erickson and Kuruvilla 1994, Mah 1997, Traxler and Woitech 2000)? These studies rest on the assumption that labour market institutions are fixed (do not change) and treat them exogenously[4]. While this traditional view may be justified in the short run for developed countries, where industrial relations systems have evolved over many decades, it is questionable for developing countries. Most developing countries have experienced an industrial boom only recently, and hence, have no tradition in the field of industrial relations. One can even argue that trade and foreign investment (particularly multinational enterprises) shape the industrial relations systems in these countries[5]. Moreover, even in the context of developed countries, the exogeneity of standards is not very appropriate when studying the role of globalisation

[4] The only exception to my knowledge is Chau and Kanbur (2001), who look at the determinants of labour standards.

[5] For example, Portes (1990) argues that labour standards in developing countries are influenced by ideas, values and institutional norms imported from abroad rather than reflecting workers' needs. Thus with an increase in the integration between developing and developed countries one might expect the labour standards in the developing countries to change.

for labour market institutions. As already mentioned, recent events throughout the developed world indicate that labour market institutions change in time, at least in the long run.

There are two main arguments in the theoretical literature about how labour market institutions respond to increased economic integration. The first argument contends that foreign investors and importers, predominantly coming from developed countries, pursue cost-effective strategies and seek to invest in countries with lower labour standards in order to escape from tough home-country institutions. These investors buy off the political elite in developing countries and make use of the threat to exit, and thereby manage to achieve beneficial tax and labour policies. This strategy undercuts the cost-competitiveness of industries in the countries with higher standards, and trade unions there, under the threat of plant closures/relocation, see themselves forced to lower their demands (Flecker 1998:73, Stumpf-Fekete 2000:72, Rodrik 1997:24[6]). Thus competition for investment and exports induces a downward spiral on labour standards, the so called "race to the bottom" or "social dumping" (among others s. Hyman 1997:527, Flecker 1998:74, Doerre 1996, Brown, Deardorff and Stern 1996, Davis 1998, Chau and Kanbur 2000, Sinn 2001: 3-6). In other words, according to this chain argument, globalisation is associated with softening labour standards.

The counterargument maintains that labour standards may improve under globalisation. Some of the proponents of this view argue that foreign capital from developed countries improves employment opportunities and wage incomes, creates technological and knowledge spillovers and thus promotes better labour standards as a by-product of the growth process (Fields 1990, Richards, Gelleny and Sacko 2001). Another group of authors emphasize that firms directly take elements of their national baggage (i.e. of their industrial relations systems) and transfer their "high-road" employment practices when they shift production to countries with lower standards (Bluhm 2001, Muller 1998). A third group of authors emphasize the fact that labour standards may be desirable since they may correct existing market failures (Agell 1999, Zhang 1994, Bagwell and Staiger 1998). This idea is developed further by endogenising the costs and benefits of labour market regulations and looking at the political process that determines

[6] "International capital mobility alters the nature of the relationship between workers and contributes to the weakening of unions. To the extent that wages are determined in bargaining between workers and employers, then, an increase in the in substitutability of workers results in a lower share of the enterprise surplus ending up with workers", (Rodrik 1997: 24).

the labour standards (Dimitrova and Tchipev 2003). One can show that in an open economy it is more costly for governments to redistribute income and favour particular local groups at the expense of others through leveraging labour market policies. Globalisation may thus act as a political equalizer and a conductor for higher labour standards.

Using new data on labour standards, this paper provides empirical evidence on the merits of these competing hypotheses: namely, is globalisation associated with higher or lower government respect for labour standards? Although there is no agreement in the literature on a definition or on a common list of labour standards, there is no controversy that freedom of association and the right to bargain collectively, freedom from forced labour, abolition of child labour and non-discrimination represent fundamental human rights and cannot be compromised by the country's income level. Thus they are regarded as *core labour standards* (cf. the World Bank Group's Core Labour Standards Toolkit). I therefore focus in this study on these core labour standards.

To measure FACB, I rely on the new ILO index of freedom of association and collective bargaining. Based on 32 evaluation criteria the ILO index has been constructed to reflect the *de jure* as well as the *de facto* labour standards in 170 countries[7]. Thus it is arguably a better measure of national labour practices than the previously used number of ratified ILO conventions (Chau and Kanbur 2001, Cooke and Noble 1998, Busse 2002, Mah 1997). To measure non-discrimination I use the UNDP index of discrimination of women at the workplace and in education; to measure the extension of forced labour I use the index of forced labour constructed by the ILO and Busse's own calculations (cf. Busse 2003). Just like the FACB measure these two indices put emphasis on the *practice* of discrimination and forced labour. Consistent with the empirical literature on child labour I use the share of working children aged 10-14 as a measure of child labour (cf. Grimsrud 2001).

I estimate models in which the four core labour standards are explained by economic, demographic and political variables. The central explanatory variable is globalisation (trade and foreign investment). I use different trade measures ranging from highly aggregated ones (like the share of trade in GDP) to highly disaggregated ones (like the

[7] For details on the construction of the index, s. Kucera (2004).

share of woven carpets in GDP taken from the PC-TAS Trade Analysis System of the ITC); investment is measured by the share of FDI in GDP. Another variable of special interest is a dummy variable for the existence of an export-processing zone. Export-processing zones are usually established by governments in developing countries with the aim of creating a "haven" for foreign investment: investors in such zones generally enjoy preferential treatment with respect to taxation and labour regulation.[8] Including a dummy for the existence of such zones thus captures government aspiration for foreign investment. Identifying the impact of government aspiration for FDI/exports on labour standards is central to the social dumping hypothesis. The most important control variables included in the regressions are the Freedom House political rights index, value added of manufacturing in GDP as a measure of industrialisation and urbanization.

In a set of benchmark regressions using the sample that includes all countries, the cross-sectional results generally point to a significant link between trade/foreign investment and respect for the four core labour standards. The relationship is positive, i.e. more open economies tend to have more stringent labour standards. The dummy variable for the existence of an export-processing zone (EPZ) is highly significant and survives in virtually all regressions. The results suggest that countries with such zones tend to have poorer labour standards, especially a softer FACB standard.

In another model specification I allow for a differentiated impact of globalisation in developing and developed countries. The results are similar: most of the disaggregated trade measures remain insignificant; the more aggregated ones point to a positive link between globalisation and labour standards for both developed and developing countries. The dummy for an export-processing zone is still significant and has a detrimental effect on the standards in the developing countries. Excluding the non-industrialised countries from the initial sample does not change the results qualitatively. But in this case some of the more disaggregated measures of trade become also significant, and these are likewise associated with an improvement of labour standards.

In sum, the regression results are reasonably consistent: more open economies that do not have an export-processing zone tend to have more respect for the four core workers' rights.

[8] For detailed description of the incentives offered by the EPZs authorities to foreign investors by country, s. Kusago and Tzannatos (1998), p. 7.

The remainder of the paper is organised as follows. Section 2 presents the theoretical motivation for the empirical analysis. Section 3 considers some measurement issues and reports the results from the benchmark regressions. Section 4 checks the sensitivity of the results to alternative model specifications. Section 5 concludes.

2. Theoretical Considerations

This paper analyses the influence of trade and foreign investment on national labour market institutions. The predominant view in the public discussion of this issue is that globalisation causes an erosion, or at least a marked deterioration, of national labour standards. In the academic discourse, however, the converse view is also well established. In order to determine the globalisation-induced effect it is of utmost importance to correct for the other factors that influence labour standards. These factors are discussed in the following.

To begin with, since all choices governments make are constrained by the country-specific political conditions (the political regime, the extent of political opposition, the influence of particular interests, etc.), it is imperative to account for the broader political context within which labour standards are determined. In autocratic regimes such as one-party dictatorships, military regimes, etc. the political leaders have direct control over the instruments of coercion and need little justification to use repression (Poe, Tate and Camp-Keith 1999:293). In democratic societies, on the other hand, extensive repression is difficult to arrange because of the structure of democracy (Poe, Tate and Camp-Keith 1999:293); in such societies, the policy choice reveals the preferences of the majority of voters, and given that workers form the majority, democratic governments are expected to provide better protection of their rights. There is a number of studies that have explored the link between democracy and government respect for human rights.[9] For example, Poe, Tate and Capm-Keith (1994) and (1999) have shown that the extent of democracy, past levels of repression and a dummy for the presence of a "general" in political power or a mixed political regime with a military presence have

[9] As laid out in the Universal Declaration of Human Rights (1948), human rights include physical integrity rights on one hand, and political rights and civil liberties, on the other. Physical integrity rights abuse includes political killings, disappearances, torture, imprisonment because of political, religious or other beliefs. Political and civil rights abuse includes government censorship/ownership of media, restrictions on political participation, union activity, religious activity, travelling, etc.

significant and substantial effects on the abuse of physical integrity rights. Henderson (1991), Hofferbert and Cingranelli (1996), Davenport (1995), Richards, Gelleny and Sacko (2001) find similar results: more democratic governments use significantly less repression, while past levels of repression and political conflict are associated with a significant increase in repression. Similarly, Henderson (1991) and Hofferbert and Cingranelli (1996) also consider physical integrity rights: they conceptualise political repression as political killings, disappearances , torture, and imprisonment of political leaders. Davenport (1995), on the other hand, focuses on political rights and civil liberties. He measures political repression as censorship (defined as limitations and/or intimidation of the popular media), political restrictions (defined as limitations and/or intimidation of individuals or political parties). Richards, Gelleny and Sacko (2001) consider two separate aspects: government respect for physical integrity rights (including political killings, disappearances, torture, imprisonment due to political, religious or other beliefs), and second, government respect for political and civil rights (government censorship/ownership of the media, restrictions on political participation, union activities, travel, religious practices). Maffei, Raabe and Ursprung (2004) consider the link between political repression and the extent of child labour practices. They find that countries with more repressive political regimes have more lenient enforcement of child labour legislation, and thus child labour is more prevalent as compared to countries with more democratic regimes. Kuruvilla (1996) uses another approach to investigate the link between the level of democracy and government respect for human rights. The author puts more stress on the political rights and civil liberties, and in particular the right of freedom of association and collective bargaining. He looks at the evolution of the industrial relation systems and the political regimes of four countries: Singapore, Malaysia, the Philippines and India since the 60s. In line with previous research he shows that during times of autocratic regimes, union activity and thus the right of FACB, tends to be suppressed.[10]

Another factor that determines the level of labour standards is the demographic composition of a country. On one hand, a relative increase in the urban population is

[10] Further examples are China (s. ICFTU 1996: 10), South Korea, etc.(s. the ICFTU website for other examples). For example, the South Korean Confederation of Trade Unions describes the situation in its Agenda for Labour Law Reform: "The past military governments revised the labour related laws to make them more repressive or disadvantageous to labour. The aim of these government efforts was to reign in the trade unions under its control. The military dictatorial regimes of the 1980s not only controlled the trade union movement by legislation and institution but also violently repressed all efforts to obtain independence or resist the control. The mainstream trade union movement represented by the FKTU submitted and yielded itself to the repression, making itself a compliant junior partner to the regime, and making the union structure a supplementary mechanism of labour control" (KCTU 1996b: 6).

associated with an increase in the number of workers (as in the cities most people earn their living as employees) and thereby with a relative increase in the constituency of workers, which in a democratic regime will bring about a policy outcome respecting workers' rights, especially the right of FACB.[11] On the other hand, however, an increase in the urban population implies also that more people queue for jobs. Assuming a more or less steady demand for labour in the cities, this means a relative rise in labour supply, which may put the workers at a disadvantage since employers will now find it easier to replace troublesome workers (especially, if they are low-skilled). This might induce workers to accept less workplace security and restrictions with respect to the right to join/form unions and/or the right to conduct strikes. Thus there are two opposing effects of an increase in urbanisation on FACB leaving the total effect ambiguous. Urbanisation is, however, expected to have a favourable effect on child labour as it is associated with a migration of families from the villages to the cities, and hence away from agriculture and other forms of domestic work, which are the predominant forms of child labour. Urbanisation is also likely to have a favourable effect on gender discrimination as the employment opportunities for women improve.

Industrialisation is another factor put forward in the literature as central in shaping industrial relations systems (Kuruvilla 1996, Frenkel 1993). [12] The issue of labour standards arises only in societies that have reached a certain level of industrialisation as by definition labour standards regulate the working conditions of employees to protect them from abuse by their employers. In the early years of industrialisation the industrial production sector emerges and attracts workers from the agricultural sector (as for example, in Singapore and South Korea in the late 70s); in already industrialised societies industrialisation is associated with an increase in industrial production. A notable difference between industrialising and highly industrialised countries is the form of workforce organization: at the initial stages of industrialization workers have virtually no organizations, and even worse, no *experience* in organising themselves and in collective bargaining. Moreover, they have no representatives who can lobby for their

[11] This is relevant for countries with relatively centralised bargaining systems where representative organisations of workers and employers on a national level (e.g. union confederations, business cameras) negotiate over minimum wages, layoff restrictions, maximum hours worked, etc.

[12] The industrial relations system of a country is a mix of regulations concerning the working conditions and the broader context in which they function. The industrial relations literature delineates the following dimensions of an industrial relations system: level of centralisation of bargaining, extension practices (the scope of extension of centralised bargaining agreements to employers not party to the negotiations), layoff restrictions, employee participation rights in the company (among others, representation on company boards, information and consultation rights, co-decision power). s. Traxler and Woitech (2000), Cooke (1997).

protection. This second issue is important because workers are in a worse position than employers: first, there is usually a labour supply surplus, especially in the first years of industrialization, and second, workers are more immobile than capital. The government thus should step in to correct the existing asymmetry between workers and employers; whether it will do so, however, depends to a large extent on the strength of the workers' organizations. Therefore, given the lack of workers' organizations and experience, we expect that in countries at initial stages of industrialisation the increase in industrialization will give rise to soft labour standards. In developed countries, where workers have already established their organizations and lobbying channels, the increase in industrialisation may produce no significant effects on the level of labour standards.

Some authors point out that it is not so much the level of industrialisation but rather the choice of specific industrialisation strategies that shape the national industrial relations system (Kuruvilla, 1996, Gereffi and Wyman, 1990, Haggard, 1990). An *import-substitution* strategy seeks to generate economic growth by promoting domestic industries and entrepreneurship with local capital. Moreover, domestic industries are protected from foreign competition by means of state regulation and high import tariffs (e.g. Singapore, Malaysia, and the Philippines during the early stages of their post-independence development). An *export-oriented* industrialisation strategy, on the other hand, creates special incentives for foreign investors and stimulates production for export. This strategy often involves multinational enterprises relocating part of their production facilities into the industrialising country or an expansion of domestic subcontracted enterprises. In rare cases, e.g. in Korea, the export-oriented industrialisation has been financed by domestic firms and the state. Depending on the type of exports there are two different export-oriented strategies: the first type is characterised by an export of goods of high value added that are skill-intensive and require a relatively developed industrial base (e.g. Singapore since mid 70s, Malaysia since mid 80s, Korea and Taiwan). This industrial policy is designed to attract R&D and high-end processes. The second type of an export-oriented strategy is characterised by labour-intensive manufacturing exports for which the primary source of competitive advantage is the low cost of labour and production (e.g. Singapore mid 60s - mid 70s, Malaysia mid 70s – mid 80s). Some governments, lead by their aspiration to attract foreign capital, create export-processing zones (where production is exclusively for export), and grant capital in the zones preferential conditions. One way to capture this

special kind of government policy towards stimulating exports/FDI is to include a dummy variable for the existence of export-processing zones.

Many politicians, particularly in the developing countries, express the opinion that labour standards are influenced by the level/stage of economic development: poor countries cannot afford to sustain high levels of minimum wages, high minimum work age, etc. There is also a body of theoretical work that points to a possible link between the level of labour standards and economic development/growth. Fields (1990), for example, argues that labour standards are a by-product of the growth process, and thus improve when the economy grows because of improved employment opportunities and wage income. The empirical findings are not very conclusive: Chau and Kanbur (2001), for example, find no statistically significant impact of economic development on the likelihood of stricter labour standards in the country; Richards, Gelleny and Sacko (2001), on the other hand, find a significant impact of economic development on government respect for political and civil rights.

3. Data, Methods and Results

In this section I report the results from my cross-section analysis of the globalisation-induced effects on labour standards. I start with a description of the data, and then examine how government respect for workers' rights vary with deepening globalisation.

3.1. Measurement Issues

As many scholars in the field point out, the bottleneck in the empirical research on labour standards has been the measuring of labour standards (see e.g. Freeman, 1996: 103, Martin and Maskus, 1999: 20). Most studies up to now assume that the ratification of ILO conventions provides information on the existing labour standards, and use the number of ratified ILO conventions as a proxy for the latter (among others, Mah 1997, Cooke and Noble 1997, Chau and Kanbur 2001). For many countries, however, the number of ratified conventions does not necessarily reflect the respect for workers rights for two reasons. First, many countries that have ratified ILO conventions lack the political will to provide the necessary national legislation and institutional base to guarantee them. The ILO itself cannot enforce implementation either as it has no power to impose sanctions. Numerous examples of non-compliance have been registered up to

now[13] but virtually no sanctions have been invoked against the non-complying countries.[14] Some countries, on the other hand, which do respect workers' rights, have not ratified the respective conventions, often because this is incompatible with their legal systems[15]. This discrepancy between ratification and the actual level of labour standards is the main reason why this approach of measuring labour standards has been widely criticised.

I therefore use the new ILO index of FACB; as a measure of discrimination, the UNDP index of gender-related development (GDI); as a measure of the extent of forced labour, the index of forced labour (FLI) presented in Busse (2002 and 2003); and as a measure of the extent of child labour, the share of children aged 10-14 who work. All of these indicators emphasize the *de facto* (vs. the *de jure*) level of the existing labour standards.

The ILO FACB index is constructed by coding textual information from three main sources: i) the US State Department's Country Reports on Human Rights Practices, ii) the Annual Survey of Violation of Trade Union Rights of the International Confederation of Free Trade Unions (ICFTU), and iii) the reports by the ILO's Committee of Experts on the Application of Conventions and Recommendation (CEARC) and the Committee on Freedom of Association (COFA). The index covers 170 developed and developing countries.[16] It is based on 37 evaluation criteria under the headings of *forms of violence against union members, suppression of rights to establish and join workers' organizations, to collectively bargain and to strike, prohibition of union activities such as political and representative activity and control of finances, and last, restriction of workers' rights in export-processing zones.* The index ranges from 0 to 10 where 0 indicates best compliance with the right of FACB.[17]

An alternative index of FACB is constructed by the OECD.[18] Based on the same three sources information has been first compiled under the headings *Restrictions on the right to establish free unions, Restrictions on the right to strike, Protection of union members*

[13] s., for example, the Reports of the ILO's Committee of Experts on the Applicaion of Conventions and Recommendations (CEARC) and the Committee on Freedom of Association (COFA).
[14] In 2000 the governing body of the ILO approved for the first time a resolution that condemned Myanmar's failure to comply with the ratified Convention 29 against forced labour. But this case is rather an exception.
[15] For example, the USA has not ratified Conventions 98 on the Right to organise and collective bargaining, the Convention 111 on Non-discrimination, and 138 on Minimum working age; Canada has not ratified Conventions 98 and 138; and it was only in 1999 that Switzerland signed Conv. 98 and 138
[16] The countries covered by the index are listed in Appendix A1.
[17] More details on the construction of the index, s. Kucera (2002 and 2004).
[18] s. OECD (1996, 2000).

and collective bargaining rights. These qualitative descriptions provide the basis for quantification of labour standards with country scores from 1 to 4: those where FACB is practically non-existent (score 1), countries where restrictions on the FACB are significant (i.e. the existence of stringent registration requirements, political interference or acts of anti-union discrimination make it very difficult to form independent workers' organizations or union confederations) (score 2), countries where some restrictions exist, but it is nevertheless possible to establish independent workers' organizations and union confederations (score 3), and countries where FACB is by and large guaranteed in law and in practice (score 4). The index covers 78 countries.[19]

In evaluating the two FACB indices, one has to note first that the ILO index has the advantage of a much finer grid, which increases the transparency in assessing a country's performance, and second, it has a greater country coverage. For this reason I mainly use in my regressions the ILO index. Furthermore, the two indices seem to be highly correlated (-0.684). Moreover, they do not seem to differ much qualitatively nor do they contradict each other. Both of them point to the fact that around 63% of the respective countries covered have satisfactory (i.e. higher than the average) compliance with the right of FACB (s. Table 1 below)

group	**ILO index**	**OECD index**
1) –worst	21	8
2)	16	29
3)	32	23
4) - best	32	40

Table 1: Distribution of the FACB indices. The numbers are the percentage of countries that fall in the respective category from total countries covered by the respective index. Regarding the ILO index " the group 1 countries" (those with worst respect for FACB) corresponds to scores from 7,5to 10, gr. 2 to scores from 5 to 7,5, gr. 3 to scores from 2,5 to 5, and gr. 4 (best respect) from 0 to 2.5.

Another observation is that the two FACB indices overlap in the extreme ends of their distributions: with the exception of 4 out of 28 countries (Singapore, Papua New Guinea, Jamaica and Uruguay), all the countries assessed by the ILO as having best compliance with FACB (scores of 0-2) are also highest ranked by the OECD (gr. 4). Similarly, with the exception of Turkey, all the countries that rank poorest on the ILO index (scores of 9-10) do so also on the OECD index (gr. 1 and 2).

Based on cases of **forced labour** practices documented in the ILO Report on forced labour, Anti-Slavery International and ICFTU, and Reports of the US State

[19] The countries covered are listed in Appendix A2.

Department[20], Busse (2002) classifies 133 countries into 3 groups:[21] i) countries with problems in both legislation and enforcement, ii) countries with insufficiencies in either legislation or in enforcement, and iii) countries with no registered problems. The forms of forced labour taken into account in the assessment are *slavery and abduction*, *compulsory participation in public works*, *coercive recruitment practices*, primarily in agriculture and remote rural areas, *forced labour imposed on civilian population by military and related authorities*, *domestic workers in forced labour situations* (e.g. children sold or given away by their parents to work as domestic servants), *bonded labour* (when people pledge themselves for an unspecified period of time as security for a loan, whereby the loan can be inherited), *trafficking in persons*, and *prison labour.*[22] Around 74% of the covered countries have no practice of forced labour, and 9% have worst practice. Around half of the countries in this last group score also poorest on the FACB indices (8-10 on the ILO index and gr. 1-2 on the OECD index). Such are China, Bangladesh, Sudan, Democratic Republic of Congo, Vietnam. The coefficients of correlation with the ILO and OECD indices of FACB are -0.4 and 0.46 respectively.

The **UNDP gender-related development index (GDI)** measures the extent of discrimination against women in education and working life. It is based on inequalities in *literacy rates*, the primary, secondary and tertiary school *enrolment ratios*, *life expectancy*, and *income*. The index varies between 0 (very high level of discrimination) to 1 (no discrimination).[23] There seems to be a close link between discrimination and the other two workers' rights: The correlation between GDI and the OECD index is 0.65 and that with the ILO index is –0.47. Almost all of the countries that have scored higher than 0.8 on the GDI (83%) are ranked by the OECD in group 4 (best compliers). Similarly, all these countries are also ranked as having no practices of forced labour, i.e. are assigned in group 3 on the FL index. The correlation coefficient with the index of forced labour is 0.60.

As a measure of the extent of **child labour** in a country I use the share of children aged 10-14 who are active in the labour force. Most measures of child labour are quantitative. A comprehensive survey and evaluation of available child labour measures can be found in Grimsrud (2001). The prevailing forms of child labour are household and field work, and most of it has been observed in poor, predominantly agricultural societies (cf.

[20] ILO (2001), US State Department (2002) and earlier issues, ICFTU (1996).
[21] The countries are listed in Appendix A3.
[22] For details, s. Busse (2002) and (2003).
[23] More details in UNDP (2002).

Grimsrud 2001 and 2002)[24]. This can also be seen from Table 2 below, which lists the countries with highest percentage of working children: these countries are, first, far below the sample mean of GDP per capita: actually, all the countries where more than 5% of the children are registered as workers (Mexico being at the lowest limit) have a per capita GDP below the sample mean (the highest being that of Mexico, 7580 US dollars). Second, they are far below the sample mean of the value added (VA) in manufacturing per capita, and respectively, far above the sample mean (actually, they are quite close to the sample maximum) of the VA in agriculture. The correlation between the CL measure and VA in agriculture as a share in GDP is 0.70.

	CL measure	**GDP per cap**	**VA manuf p.c.**	**VA agr % GDP**
Kenya	40.00	970	38.04	26.45
Rwanda	41.56	1030	30.22	45.53
Ethiopia	41.58	690	6.91	52.33
Nepal	43.33	1160	19.98	39.9
Niger	44.21	880	12.69	42.62
Uganda	44.40	1280	25.91	42.07
Burkina Faso	46.51	990	35.24	40.32
Burundi	48.69	670	9.47	54.16
Mali	52.49	730	9.79	46.46
Mean	10.11	7823.974	853.61	19.38
Min	0	0	5.33	0.13
Max	52.49	40640	6857.26	62.38
Correlation with CL measure	1	-0.55	-0.40	0.70

Table 2: Child labour and industrialization indicators. The table is constructed based on data from World Bank (2003)

When compared to the other indices of workers' rights, the child labour measure (CL) is most highly correlated with the index of discrimination (-0.868) and that of forced labour (-0.63), and not so highly correlated with the two indices of FACB (0.3 for the ILO index and –0.47 for the OECD index). If one considers only the subsample of countries with a percentage of child workers in excess of 20%, the coefficients amount 0.36 and –0.08 respectively. The latter observation may be due to the fact that those countries with high CL are usually not industrialized[25]. As already discussed in Section 2 it is questionable whether one should try to evaluate government compliance with the right of FACB of countries that do not have a sufficient level of industrialization. As the

[24] According to statistics assembled by the International Labour Office, about 70% of the children who work are employed as unpaid family helpers in rural areas (s.Rama 2003: 20).

[25] In Appendix B the countries with CL higher than 20% are listed. The highest VA manufacturing per cap is that of Senegal (82.22 US $), well below the sample mean of 853.61; furthermore, save for Zimbabwe (71.95 US $), Cameroon (63.569 US $), Bangladesh (54.4 US $) and Congo (47.7 US $), all these countries have a VA manufacturing p.c. below 40 US $, which is quite close to the sample minimum.

table in Appendix B shows these countries are assigned virtually all scores from 1 to 10 on the ILO index, and from 1 to 3 on the OECD index.

The second point of central interest in the analysis of the effect of globalisation on labour standards is how globalisation is defined and measured. In this study globalisation is defined as the diffusion of capital, and specifically, of foreign direct investment, and trade in goods/services. Various globalisation measures have been used in the literature. With respect to FDI, most studies use the ratio of inward FDI to GDP. Studies like Cooke and Noble (1998), Cooke (1997), etc. that examine the incentives for capital movement use as a rule the US outward foreign direct investment. With respect to trade, the most common measures are: ratio of total trade to GDP (Rodrik 1997), shares of imports/exports in GNP or GDP (e.g. Chau and Kanbur 2001, Wood 1994, Feenstra and Hanson 1997), merchandise exports as share of GDP (Rodrik 1997), levels or changes in imports of manufactures (Lawrence 1998).

To capture all possible effects of globalisation on labour standards, I use eight indicators of globalisation: one measuring foreign investment and seven measuring trade. The latter range from highly aggregated measures, like share of total trade in GDP, to highly disaggregated ones, like share of exports of specific products like woven carpets in GDP, which (together with the garment and leather manufacturing) are often cited in the literature as the most notorious examples of industries where workers' rights are being suppressed (cf. Rama, 2003: 20). I include this last highly disaggregated measure because I want to identify the potential effect of this specific industry, which might be obscured, if one considers only aggregated measures of trade.[26] A further variable that captures the government policy with respect to globalisation is a dummy for the existence of an export-processing zone (EPZ).

The correlation matrices of the four indices of workers' rights and the respective measures of globalisation presented in Appendix C give a first feeling for the link between globalisation and labour standards.[27] The four correlation matrices point to the following: *the existence of an export-processing zone* (the variable most highly

[26] The eight measures of globalisation included in the regressions are share of total trade in GDP (%), share of exports of goods and services in GDP (%), share of merchandise exports in GDP, share of labour-intensive exports in total exports, share of manufacturing exports in GDP, share of machinery exports in GDP, share of woven carpets in GDP, share of FDI in GDP (%). The precise definition and data sources are found in the Data Appendix.

[27] The correlation matrix of OECD index and the globalisation measures is not presented as it is very similar to that of the ILO index.

correlated with any of the four globalisation measures) and an increase in *labour-intensive exports* (the second most highly correlated globalisation measure with the indices of discrimination and forced labour (-0.41 and -0.32 respectively)) are systematically associated with poorer labour standards; an increase in all other globalisation measures is associated with stricter labour standards. The correlation coefficients between the workers' rights indices and these measures of globalisation are generally between 0.25 and 0.40, whereby the correlation seems to be highest with the trade share, exports share and merchandise exports share.

3.2. Estimation Methods and Regression Results

In a next step, I regress the four alternative measures of workers' rights (ILO index of FACB, FLI, GDI[28] and CL) on the alternative measures of globalisation. The econometric model employed for the first three workers' rights is ordered probit because of the ordinal nature of the dependent variables and is estimated by maximum likelihood. The child labour model is a regular linear multivariate model, which has been estimated using ordinary least squares[29].

I begin with some preliminary regressions using the whole sample of countries. I control for economic, political and demographic factors whose effects on labour standards have been hypothesized in Section 2; these are: the level of economic development, the level of political freedom, and the levels of urbanization and industrialization.[30] The level of economic development is measured by GDP per capita; the level of political freedom is measured by the Freedom House's index of political rights, which ranks 192 countries and 18 territories on basically three main groups of criteria: the electoral process, the level of political pluralism and participation, and the functioning of the government (e.g. the level of corruption, accountability to the electorate, etc). It ranges from 0 to 10, where 10 indicates no respect for political rights.[31] The level of urbanization is measured by the percentage of urban population and industrialization is measured by the

[28] The original GDI variable has been rescaled by multiplying it by 10.
[29] With respect to the problem of causality one can note that the independent variables are measured in a year prior to that of the construction of the indices.
[30] Further controls have been made for *poverty* (proxied by infant mortality rate, prevalence of undernourishment, tuberculosis treatment success rate as this disease is the most common cause for death in poor countries), a*id dependency* (proxied by IMF concessional loans), level of *R&D* (measured by R&D expenditure), *education* (measured by enrolment ratios). As none of these variables has proven to be significant nor to qualitatively change the results, I do not report them in the main regressions here to keep the exposition of the results more concise and easy to read.
[31] More details on the index are available on the Freedom House internet site, www.freedomhouse.org.

value added of manufacturing per capita. The variables' exact definitions and sources are listed in the Data Appendix.

The first regression results are presented in Tables 3 through 6.[32] Only the results from the regressions on the most interesting globalisation variables are reported: the EPZ as the one with highest correlation with all the four measures of workers' rights; the share of labour-intensive exports (LI), the variable that is second in importance for the GDI and FLI and one that seems to be associated with poorer respect for all four workers' rights; the trade share (TRADE) as the variable which has proven to be significant in almost all regressions, and last, the FDI share as this is the only variable capturing the diffusion of capital.

The results show, first, that the EPZ-variable (a dummy for the existence of an export-processing zone) is an important determinant of the level of labour standards, particularly of FACB and FL: it is significant in all regressions of FACB and FL, and in some regressions of CL. It is always associated with poorer labour standards.[33] How can one interpret this result? One possibility would be to say that the poor working conditions in these zones pull down the average level of labour standards in the country. What runs counter to this hypothesis is, first, the fact that he employment in EPZs is a relatively small part of the employment in the country (e.g. in 1994 the EPZs employment in the Philippines was around 25% of manufacturing employment, and the percentage will be even smaller if we consider total country employment; similarly, in 1997 in China it was around 28% of manufacturing employment[34]). Thus, even if the working conditions in the EPZs are bad, this does not necessarily produce significant ripple effects on the rest of the economy. Second, export-processing zones are not homogenous: while there are examples of EPZs with bad working conditions (e.g. the

[32] The reported standard errors are heteroscedasticity robust.

[33] In order to check whether this effect of EPZ on the two indices of FACB and FL does not capture part of the effect of GDP I have re- run the regressions on a subsample of low-GDP countries. In the first set of regressions a country has been designated as a "low-GDP" one, if its GDP per capita is lower than the sample mean; in the second set of regressions "low-GDP" countries are those which fall into the "low" and "lower middle" groups according to the World Bank classification (s. WB, 2003: WDI). The results show that the EPZ variable still retains its significance at 1% or 5%. Because of its high significance, especially in the case of FACB (always at 1%) I keep this variable in all regressions. As can be seen from the tables with the correlation matrices in Appendix C there are no multi-collinearity problems with respect to the other globalisation measures.

[34] Own calculations based on manufacturing employment data from the World Bank Trade and Production Database and data on employment in EPZs from the ILO export processing zones database (s. ILO 2003 and ILO 2003a).

maquiladoras of Central America) due to lack of legislation or ineffective monitoring,[35] there is enough evidence for the opposite. Firm size is one critical factor: firms with relatively large-scale operations usually provide better wages and working conditions, and in many cases their standards are superior to those prescribed by law (s. Romero 1995: 253). Moreover, Kusago and Tzannatos (1998) find that *wages* in China, Thailand and Sri Lanka are higher in EPZs, and that those in South Korea and Malaysia though initially lower are now higher than wages outside EPZs[36]. Furthermore, though less frequent, in some countries (e.g. in Sri Lanka and Thailand) the EPZ authorities have taken the seemingly paradoxal decision to set a higher minimum wage for the zones, even though low-cost labour is generally considered a major location-specific advantage. The Sri Lanka Board of Investment said it hoped this would prevent the high turnover of labour in the zones and that a stable workforce would encourage potential investors[37]. As a result, in 1992 the minimum monthly wage for the unskilled (respectively, skilled) workers in the zones was RS 2000 (resp., 2300), and that outside the zones was 1500 (resp., 1700). In Ecuador the EPZ legislation stipulates that the wages paid to workers in the zones have to be at least 10% higher than the minimum wage paid to workers outside the zones in the same industrial activity (Romero 1995: 253-4). With respect to the right of *FACB*, some countries have allowed trade unions in the EPZs without constraints on their activities, e.g. in Tunisia the unionization rate in EPZs is the same as outside, namely 30% (Romero 1995: 259), other examples are the maquiladoras in the northeastern state of Tamaulipas, Mexico, Taiwan (China), and the Bataan EPZ in the Philippines (s. Romero 1995: 259, Kusago and Tzannatos 1998: 19-20). Next to wages and union activity, one can also note that zones with higher value added activities (such as Penang in Malaysia) also tend to do more for *human resource development* since they need to cater for higher skill requirements of their investors (ILO 2003a: 7). Similar is the situation in the Shenzhen special economic zone in China; education institutes are established to improve the technical and vocational skills for the workers in the zone (Kusago and Tzannatos 1998: 14). In Singapore the Skills

[35] In a few countries like Bangladesh, Panama, Pakistan the EPZs are excluded from national labour legislation. In many countries any form of industrial action (including formation/joining unions, strikes) in the zones is strictly prohibited (e.g. Mexico, Guatemala). In the countries where the zones are subject to the national labour law, the law is actually not properly applied due to lax monitoring (equipment missing, labour administration of the oznes often staffed with ex-officials of the Labour Ministry). (S. ILO 1998 on more details.) All this inevitably gives rise to bad working conditions in the zones.

[36] This coincides with the findings of Romero (1995) that in early 90s the average wages in electronics and textile factories in EPZs in Malaysia were 30% higher than those paid by similar firms outside the zones (Romero 1995: 253).

[37] As mentioned by the ILO (2003a) the zones with tighter labour markets tend to offer workers also non-wage benefits such as more job security and training in order to retain them (ILO 2003a: 7).

Development Fund provides financial assistance for training programmes for workers in the zones (UNCTAD 1999). These recent developments, which are particularly evident in the newly industrialized countries, are caused by the gradual shift to more capital-intensive and higher value-added production (Kusago and Tzannatos 1998: 8-10, 12-15).

An alternative is to look at the EPZ-variable as an indicator for a *specific policy attitude*: namely, the tendency/aspiration of governments to create benefits for the multinational investors in the country. One can go even further and speculate that if multinational enterprises have a strong influence (e.g. strong lobby) in the host country, they may (successfully) exercise pressure over local governors to obtain beneficial investment conditions. The EPZ-variable can thus be interpreted as an indicator of the influence of multinational investors on the government. Then the negative effect of the EPZ-variable on labour standards could be interpreted as the negative effect of government aspiration to acquire foreign investment at all cost, or as the negative effect of the strong political influence of multinational enterprises.

An example that illustrates this negative relationship between government initiatives for foreign investment (as a way to stimulate growth in the country) and the respect for FACB is South Korea. As can be seen from the Korean press and the documents of the Korean Confederation of trade unions the government of Kim Young-sam, in power since 1993, has concentrated efforts on turning the country into "the business hub of Northeast Asia" by creating special living/investment conditions for foreign investors (he has liberalized trade and financial markets, education, agriculture and medical services and has put forth the Act on Establishment of Special Economic Zones). On the other hand, South Korea has the lowest trade union membership among OECD countries, the longest working hours and the highest rate of industrial conflict (s. KCTU 1996a: 1). Furthermore, until the mid 90s the Korean Labour Law had clauses specifically aimed at constraining the labour movement: prohibition of multiple unionism (i.e. prohibition of unions other than the FKTU, whereby the latter receives financing from the government and acts as a conductor of its interests), denial of trade union rights for workers in the public sector, prohibition of third party intervention in labour disputes, power of administrative authorities to intervene in the trade union affairs (e.g. to amend the union's constitution, or to change/nullify collective bargaining agreements), restriction on strike action (cf. KCTU 1996b).

A second result is that most of the other trade measures are insignificant, particularly the more disaggregated ones like the share of carpets exports, machinery and manufacturing exports, and labour-intensive exports[38]. Among the more aggregated trade measures, the one that has survived in most of the regressions is the share of total trade in GDP, which I report. When significant at all, the estimated coefficients of the trade measures (i.e. with the exception of the EPZ) point to a positive link between globalisation and labour standards, i.e. an increase in openness gives rise to stricter labour standards. As far as foreign investment is concerned, it transpires to be an important determinant of the respect for FACB only: an increase in FDI improves government respect for FACB.

In general, all control variables, when significant at all, have the expected sign: economic development is associated with stricter labour standards and seems to be important for all four standards; political freedom is associated with better respect for FACB and anti-discrimination, i.e. it is important for the two rights which can be regarded as *civil* rights and which as such are most vulnerable to changes in the political climate. The effects of urbanization and industrialization are not so clear-cut. Both of them, where significant, are associated with weaker respect for FACB, but with a positive impact on child labour and gender discrimination.[39] The latter observation is explained by the fact that through urbanization and industrialization more families move to the cities and become employed. The resulting reduction in domestic and field work decreases the demand for child labour. Urbanization and industrialization also contribute to an improvement in the employment opportunities for women, which may explain the observed reduction in the gender discrimination index.

[38] Because of this I report here only the results for the labour-intensive exports share.

[39] One can alternatively measure *the change* in economic development, urban levels and levels of industrialization over a given period in stead of their levels at a particular point of time. The results do not change.

Dependent variable:	**ILO index of FACB**			
	EPZ	LI	TRADE	FDI
	(1)	(2)	(3)	(4)
GDP	-0.00006***	-0.00007***	-0.00006***	-0.00006***
	(0.0000)	(0.0000)	(0.0000)	(0.000)
PR	0.13274***	0.15271**	0.13962***	0.15932***
	(0.0457)	(0.0769)	(0.0464)	(0.0511)
URB	0.00715	0.01438	0.00760	0.00647
	(0.0058)	(0.0106)	(0.0062)	(0.0064)
IND	0.05301***	0.04022	0.06606***	0.04936**
	(0.019)	(0.0302)	(0.0188)	(0.0218)
EPZ	0.89597***	0.99987***	0.84865***	0.77392***
	(0.2786)	(0.3878)	(0.2937)	(0.2911)
LI		-0.08575		
		(0.8604)		
TRADE			-0.00716***	
			(0.0024)	
FDI				-0.04378***
				(0.00145)
Percent correctly predicted	25	27.94	27.4	27.2
LR Chi-square, prob	0.000	0.000	0.000	0.000
N of observations	124	68	124	103

Table 3: The FACB regressions. Each column corresponds to a regression on the particular globalisation indicator as indicated on the top of the column. *-significance at 10% , ** - significance at 5% , *** - significance at 1% . Numbers in parentheses are standards errors.

Dependent variable**:**	**FLI (Forced Labour Index)**			
	EPZ	LI	TRADE	FDI
	(1)	(2)	(3)	(4)
GDP	0.00023**	0.00016	0.00022**	0.00018
	(0.0001)	(0.0002)	(0.0001)	(0.0001)
PR	0.03	0.03	0.04	0.013
	(0.05)	(0.10)	(0.05)	(0.06)
URB	0.016	0.032	0.016	0.024**
	(0.0083)	(0.023)	(0.008)	(0.03)
IND	-0.025	-0.026	-0.033	-0.04
	(0.03)	(0.06)	(0.03)	(0.03)
EPZ	-0.926***	-1.33***	-.0833**	-1.04***
	(0.32)	(0.46)	(0.34)	(0.344)
LI		0.76		
		(1.68)		
TRADE			0.006*	
			(0.004)	
FDI				0.05
				(0.05)
Percent correctly predicted	70.1	73.5	77.3	70
LR Chi-square, prob	0.000	0.000	0.000	0.000
N of observations	117	117	66	100

Table 4: The Forced Labour regressions. Each column corresponds to a regression on the particular globalisation indicator as indicated on the top of the column. *-significance at 10%, ** - significance at 5%, *** - significance at 1%. Numbers in parentheses are standards errors.

Dependent variable:	GDI (the index of Discrimination)			
	EPZ	LI	TRADE	FDI
	(1)	(2)	(3)	(4)
GDP	0.00027***	0.000***	0.00056***	0.000***
	(0.000)	(0.000)	(0.0001)	(0.000)
PR	-0.112**	-0.20*	-0.11**	-0.11**
	(0.05)	(0.10)	(0.05)	(0.06)
URB	0.037***	0.04*	0.037***	0.032***
	(0.01)	(0.022)	(0.012)	(0.011)
IND	0.08***	0.108**	0.08***	0.077***
	(0.02)	(0.045)	(0.023)	(0.02)
EPZ	0.131	-0.856	0.132	0.116
	(0.38)	(0.59)	(0.383)	(0.381)
LI		0.54		
		(1.695)		
TRADE			0.000	
			(0.004)	
FDI				0.019
				(0.036)
Percent correctly predicted	63.16	79.1	63.15	63.91
LR Chi-square, prob	0.000	0.000	0.000	0.000
N of observations	114	67	114	97

Table 5: The Discrimination Regressions. Each column corresponds to a regression on the particular globalisation indicator as indicated on the top of the column. *-significance at 10%, ** - significance at 5%, *** - significance at 1%. Numbers in parentheses are standards errors.

Dependent variable:	CL (percentage of children aged 10-14 who are working)			
	EPZ	LI	TRADE	FDI
	(1)	(2)	(3)	(4)
GDP	0.000063	-0.00000	0.000084	0.00017
	(0.00017)	(0.00015)	(0.000168)	(0.000172)
PR	0.37	0.19	0.363	0.63**
	(0.322)	(0.324)	(0.319)	(0.31)
URB	-0.38***	-0.19***	-0.38***	-0.33***
	(0.05)	(0.055)	(0.05)	(0.05)
IND	-0.59***	-0.274	-0.53***	-0.57***
	(0.13)	(0.142)	(0.13)	(0.12)
EPZ	0.29*	5..50***	-0.24	1.02
	(2.11)	(1.88)	(2.11)	(1.93)
LI		-3.82		
		(5.31)		
TRADE			-.0.04**	
			(0.019)	
FDI				-0.137
				(0.107)
R-squared	0.590	0.452	0.603	0.604
Prob of F	0.000	0.000	0.000	0.000
N of observations	123	70	123	106

Table 6: The Child Labour regressions. Each column corresponds to a regression on the particular globalisation indicator as indicated on the top of the column. *-significance at 10%, ** - significance at 5%, *** - significance at 1%. Numbers in parentheses are White standards errors.

The regression results presented in this Section paint a reasonably consistent picture. More open countries that do not have export-processing zones generally have stricter labour standards.

4. Sensitivity Analysis

In this Section I check how sensitive the results presented in the above section are to alternative model specifications. The first issue of concern is the assumption that globalization affects developed and developing countries in the same manner. Given the differences in economic development (which have been shown to represent an important determinant of the level of labour standards in the previous Section), one might expect that globalisation has a different effect on developed and developing countries. Tables 7 through 10 report the regression results[40], separately for developed and developing countries [columns (1) and (2), respectively].[41] The results do not change much: most of the disaggregated globalisation measures remain insignificant in the two subsamples; the more aggregated measures like trade share and the share of merchandise exports (the latter is not reported) are in some cases significant and associated with better labour standards. The increase in the share of FDI is also associated with better respect for labour standards, particularly in developed countries. The only difference is the loss of significance of the EPZ variable in the regressions for the developed countries, which is to be explained with fact that the establishment of such zones is almost exclusively an industrialization strategy employed by developing countries.[42] Another finding is that the significance of industrialization in the FACB, discrimination and child labour benchmark regressions seems to capture an effect that is present only in the *developing* (*industrializing*) *countries*. As one can see from the results in the separate regressions on developed and developing countries, industrialization turns out to be significant only in the sub-samples of the developing

[40] All the disaggregated measures, including the share of labour-intensive exports, have not been reported as they are insignificant in all regressions. The only exception is the share of carpets exports, which is significant in the ILO index regression for developed countries. But the direction of the effect is the same as that of the other reported globalisation variables and reporting it does not bring new information value.
[41] Developing countries are considered those classified by the UN as "low-income" or "lower middle income" ones. Developed countries are the rest (s. World Bank 2003).
[42] As Kusago and Tzannatos (1998) argue export-processing zones are not a static phenomenon; their characteristics change with the change in the economic conditions in the country (p. 4). Thus most of them are concentrated in the industrialising countries: 48% of all EPZs are found in East and South East Asia and another 42% in Latin American countries (Kusago and Tzannatos 1998:5). Moreover, the zones are not homogeneous, the conditions in the zones vary also with the economic conditions in the country.

countries. This may be due to the fact that the workers in these countries are not adequately organised to protect their rights.

Dependent variable:	**The ILO Index of FACB**					
	EPZ		TRADE		FDI	
	(1)	(2)	(1)	(2)	(1)	(2)
GDP	-0.00006**	-0.000	-0.00005	0.000	-0.00006*	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
PR	0.037	0126**	0.114	0.114*	0.007	0.178**
	(0.106)	(0.065)	(0.139)	(0.062)	(0.12)	(0.074)
URB	0.025*	0.004	0.020	0.006	0.023	0.003
	(0.015)	(0.010)	(0.016)	(0.010)	(0.015)	(0.011)
IND	0.031	0.072***	0.043	0.085***	0.035	0.066**
	(0.03)	(0.03)	(0.033)	(0.03)	(0.034)	(0.033)
EPZ	1.582	0.747**	1.616	0.624*	1.27	0.662*
	(0.965)	(0.32)	(1.002)	(0.347)	(0.940)	(0.352)
TRADE			-0.006	-0.009**		
			(0.004)	(0.005)		
FDI					-0.058**	-0.028
					(0.028)	(0.03)
Percent correctly predicted	27.27	27.5	22.73	28.75	34.15	29.03
LR Chi-square, prob	0.003	0.000	0.001	0.000	0.001	0.000
N of observations	44	80	44	80	41	62

Table 7: The FACB regressions for developed and developing countries. (1) stands for regression for developed countries, (2) stands for those for developing countries. Each of the three sections corresponds to the regressions on the particular globalisation indicator as indicated on the top of the section. *-significance at 10%, ** - significance at 5% , *** - significance at 1%. Numbers in parentheses are standards errors.

Dependent variable:	**FLI (the index of Forced Labour)**					
	EPZ		TRADE		FDI	
	(1)	(2)	(1)	(2)	(1)	(2)
GDP	0.002	0.0004***	0.0006**	0.0004**	0.0006	0.0003
	(0.004)	(0.0001)	(0.003)	(0.000)	(0.0008)	(0.000)
PR	0.563	0.029	-0.003	0.03	0.064	0.0178
	(2.566)	(0.055)	(0.478)	(0.056)	(0.336)	(0.062)
URB	-0.164	0.0199**	0.009	0.019**	-0.020	0.034***
	(0.341)	(0.009)	(0.068)	(0.01)	(0.043)	(0.014)
IND	-0.449	-0.036	0.019	-0.038	-0.100	-0.049
	(0.257)	(0.028)	(0.144)	(0.029)	(0.185)	(0.034)
EPZ	-5.005	-0.847**		-0.798*		-1.001**
	(6.372)	(0.362)		(0.421)		(0.432)
TRADE			0.006	0.002		
			(0.024)	(0.005)		
FDI					0.160	0.049
					(0.657)	(0.55)
Percent correctly predicted	94.87	60.26	90.48	60.26	83.78	66.67
LR Chi-square, prob	0.002	0.000	0.000	0.000	0.0968	0.000
N of observations	39	78	42	78	37	63

Table 8: The Forced Labour regressions for developed and developing countries. (1) stands for regression for developed countries, (2) stands for those for developing countries. Each of the three sections corresponds to the regressions on the particular globalisation indicator as indicated on the top of the section. *-significance at 10% , ** - significance at 5%, *** - significance at 1%. Numbers in parentheses are standards errors.

Dependent variable:	**GDI (the Index of Discrimination)**					
	EPZ		TRADE		FDI	
	(1)	(2)	(1)	(2)	(1)	(2)
GDP	0.000***	0.00043***	0.000**	0.00042***	0.000	0.000***
	(0.000)	(0.0001)	(0.000)	(0.000))	(0.000)	(0.000)
PR	-0.315	-0.066	-0.24	-0.051	-0.377	-0.094
	(0.507)	(0.055)	(0.44)	(0.058)	(1.073)	(0.067)
URB	0.036	0.032***	0.031	0.032***	0.055	0.028**
	(0.04)	(0.01)	(0.044)	(0.01)	(0.087)	(0.011)
IND	0.11	0.075***	0126	0.069***	0.108	0.082**
	(0.07)	(0.025)	(0.089)	(0.026)	(0.148)	(0.033)
EPZ	-1.012	0.311	-1.141	0.457		0.262
	(2.507)	(0.39)	(2.397)	(0.391)		(0.412)
TRADE			-0.006	0.007		
				(0.005)		
FDI					0.024	0.01
					(0.073)	(0.06)
Percent correctly predicted	82.93	53.42	82.9	57.73	89.47	49.15
LR Chi-square, prob	0.000	0.000	0.000	0.000	0.000	0.000
N of observations	41	73	41	73	38	59

Table 9: The Discrimination regressions for developed and developing countries. (1) stands for regression for developed countries, (2) stands for those for developing countries. Each of the three sections corresponds to the regressions on the particular globalisation indicator as indicated on the top of the section. *-significance at 10%, ** - significance at 5%, *** - significance at 1%. Numbers in parentheses are standards errors.

Dependent variable:	**CL (share of children aged 10-14 who work)**					
	EPZ		TRADE		FDI	
	(1)	(2)	(1)	(2)	(1)	(2)
GDP	-0.00005	-0.002***	-0.00003	-0.002***	-0.00003	-0.002**
	(0.000)	(0.0008)	(0.000)	(0.0008)	(0.000)	(0.000)
PR	0.477	-0.055	0.592	-0.223	0.822**	0.296
	(0.336)	(0.403)	(0.367)	(0.4)	(0.367)	(0.398)
URB	-0.029	-0.415***	-0.038	-0.406***	-0.029	-0.389***
	(0.047)	(0.076)	(0.048)	(0.075)	(0.046)	(0.073)
IND	-0.259*	-0.373**	-0.243**	-0.311*	-0.309***	-0.419**
	(0.096)	(0.186)	(0.098)	(0.184)	(0.1)	(0.178)
EPZ	4.73**	1.047	4.640**	-0.356	4.393**	1.45
	(2.083)	(2.503)	(2.096)	(2.51)	(0.059)	(2.329)
TRADE			-0.009	-0.0073**		
			(0.011)	(0.032)		
FDI					0.0065	-0.37*
					(0.059)	(0.199)
R squared	0.386	0.605	0.396	0.630	0.474	0.631
Prob of F	0.002	0.000	0.003	0.000	0.001	0.000
N of observations	44	79	44	79	41	65

Table 10: The Child Labour regressions for developed and developing countries. (1) stands for regression for developed countries, (2) stands for those for developing countries. Each of the three sections corresponds to the regressions on the particular globalisation indicator as indicated on the top of the section. *-significance at 10%, ** - significance at 5%, *** - significance at 1%. Numbers in parentheses are White standards errors.

As a further robustness test of the results presented in Section 3, I exclude from the initial sample those countries that have no industry. As already mentioned, it makes sense to assess the level of labour standards, and particularly that of FACB, only for countries which are sufficiently industrialized. When defining a non-industrialised country as one with a per capita value added of manufacturing lower than 70 US$[43], I obtain results (cf. Table 11 and 12) very similar to those from the benchmark regressions presented in Section 3. Most important, some disaggregated measures of globalisation now become significant; namely, the measure of manufacturing exports share (MAN) in the FACB regressions and labour-intensive exports share (LI) in the CL regressions. The regression results for the other two indices do not change.

To sum up, in the case when only industrialized countries are considered, the results are even stronger in the sense that more trade measures point to a significant positive effect of trade on labour standards, i.e. trade and FDI are consistently associated with stricter labour standards.

[43] This measure is a better indicator of industrialisation in this case than the share of value added of manufacturing in GDP because it is not affected by decrease of the relative share of manufacturing in GDP in favour of the services sector that took place in the last 10-15 years in most developed countries. An even better measure perhaps is the share of employment in manufacturing or in industry; this variable however has lots of missing values, and for this reason has not been used. The figure 70 US$ has been chosen so that it is around 10% of the sample mean of the variable. The countries that have thus been excluded from the initial sample are listed in Appendix D. One can alternatively use the definition of the International Trade Center and UN of least-developed countries.

Dependent variable:	FACB (Freedom of association and collective bargaining)					
	EPZ	TRADE	EXP	MER	MAN	FDI
GDP	-0.00007***	-0.00006***	-0.00006***	-0.00007***	-0.00008***	-0.00006***
	(0.000)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
PR	0.157***	0.17***	0.17***	0.16**	0.14**	0.14**
	(0.057)	(0.064)	(0.07)	(0.07)	(0.06)	(0.06)
URB	0.013	0.01	0.01	0.009	0.02*	0.013
	(0.0097)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
IND	0.042*	0.06**	0.057**	0.08***	0.07***	0.04*
	(0.023)	(0.02)	(0.02)	(0.03)	(0.03)	(0.02)
EPZ	1.14***	1.13***	1.12***	1.11***	0.97**	1.07***
	(0.36)	(0.37)	(0.37)	(0.36)	(0.38)	(0.38)
TRADE		-0.008***				
		(0.003)				
EXP			-0.014***			
			(0.005)			
MER				-3.012***		
				(1.08)		
MAN					-8.857*	
					(5.01)	
FDI						-0.052**
						(0.02)
Percent correctly predicted	24.4	23.17	22	21.52	25.6	29
LR Chi-square, prob	0.000	0.000	0.000	0.000	0.000	0.000
N of observations	82	82	82	79	82	76

Table 11: The FACB regressions, industrialized countries. Each column corresponds to a regression on the particular globalisation indicator as indicated on the top of the column. *-significance at 10%, ** - significance at 5%, *** - significance at 1%. Numbers in parentheses are standards errors.

Dependent variable:	CL (child labour)	
	LI	MAN
GDP	-0.0001	-0.0001
	(0.00009)	(0.0001)
PR	0.223	0.181
	(0.198)	(0.26)
URB	-0.07*	-0.127***
	(0.037)	(0.04)
IND	0.057	-0.033
	(0.09)	(0.116)
EPZ	4.246***	-0.28
	(1.199)	(1.65)
LI	-7.636**	
	(3.77)	
MAN		-51.58**
		(20.16)
R squared	0.435	0.361
Prob of F	0.000	0.000
N of observations	64	84

Table 12: The CL regressions, industrialized countries. Each column corresponds to a regression on the particular globalisation indicator as indicated on the top of the column. *-significance at 10%, ** - significance at 5%, *** - significance at 1%. Numbers in parentheses are standards errors.

IV. Concluding Remarks

The last 20 years have seen the coexistence of highly integrated product and financial markets with profound differences between national labour market regimes. This has offered transnational firms the opportunity to target investment towards countries with soft labour standards. Whether this opportunity has resulted in a deterioration of national labour standards has been tested in this study by examining the impact of trade and foreign investment on government respect for four core workers' rights. The empirical results suggest that in the cases where the relationship is significant both trade and investment per se tend to positively affect the level of labour standards, i.e. they are associated with better government compliance with the respective workers' rights. The results of this study thus do not fit the social dumping hypothesis.

How can this finding be explained? One reason could be that investment strategies targeted at cross-national variations in labour-market regimes are not sufficiently important to unleash social dumping. Some case studies suggest that while industrial relations (and lower labour costs in general), offer an incentive for capital mobility, industrial relations systems are ranked by most companies lower than other determinants of investment such as market size and growth potential, political, economic and social stability, standards of treatment of foreign affiliates and their income, infrastructure, and access to skilled labour (cf., for example, IMF 1999: 3-5, Stumpf-Fekete 2000, Traxler and Woitech 2000, Harms and Ursprung 2004). Some studies also find that countries with soft labour standards generally do not attract more foreign investment or production for exports: OECD (1996, 2000) found respectively no and a rather weak positive correlation (0.2) between FACB and FDI inflows; Busse (2003) found a significant positive link between FDI and four indicators of the core labour standards that emphasize *de facto* compliance; Rodrik (1996) found that countries with a high incidence of child labour (the only significant labour standards variable) attract less US capital; Raynauld and Vidal (1998) using the Human Development Index of the UN as a proxy for labour standards also found a significant positive relationship with inward FDI; finally, Cooke and Noble (1998) also report a positive link between the number of ratified ILO conventions and attracted US investment.

Another finding of this analysis is that EPZ-operating countries tend to have less respect for workers' rights, especially regarding the right of freedom of association and collective bargaining. This may be due to the fact that these countries tend to have governments willing to compromise national working conditions (labour standards) in stimulating exports and foreign investment, or that these governments yield to pressure from strong multinational investors. The negative link between exports/FDI-oriented governments and labour standards is an issue of concern since it points in the direction of the proponents of the social dumping hypothesis: it is not trade or FDI itself that induces the downward spiral of labour standards but unprincipled governments competing for trade/FDI. Nevertheless, saying that the results support the social dumping hypothesis would be jumping to conclusions. The social dumping argument rests on the assumption of *successive* (strategic) responses of one government to the acts of the other countries' governments, i.e. it involves by definition a dynamic approach. The model employed in this paper is only a snap-shot at a particular point in time, and as such has only the power to characterise the relationship between government aspirations and labour standards at this point in time. While such an analysis does make a contribution to the social dumping debate, any conclusions about whether there is evidence for or against the social dumping hypothesis would be appropriate only after extending the cross section model to a panel model. The reason is that we need time-series data to see whether *in subsequent periods* governments, and particularly those of developed countries, do engage in a competition for FDI/exports. At this stage, however, panel-data models of labour standards are not feasible because of lack of comparative time series of labour standards. For the time being one can only speculate about possible dynamic effects. Nevertheless, panel data models of labour standards remain an important issue on the agenda of future research.

Appendix A

Country Lists

A.1. Countries covered by the ILO index of FACB

Albania, Algeria, Angola, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados Belarus, Belgium, Belize, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Brunei, Bulgaria, Burkina Faso Burundi, Cambodia, Cameroon, Canada, Cape Verde, Central African Republic, Chad, Chile, China, Colombia, Comoros, Congo, Costa Rica, Cote d'Ivoire, Croatia, Cuba, Cyprus, Czech Rep, Democrat Republic of Congo, Denmark, Dominican Republic, Ecuador, Equatorial Guinea, Egypt, El Salvador, Eritrea, Estonia, Ethiopia, Fiji, Finland, France, Gabon, Gambia, Georgia, Germany, Ghana, Greece, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hong Kong, Hungary, Iceland, India, Indonesia, Iran, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Korea, Democratic Rep, Republic of Korea, Kuwait, Kyrgyzstan, Lao People's Rep, Latvia, Lebanon, Lesotho, Liberia, Libya, Lithuania, Luxembourg, Macao, Macedonia, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Mauritania, Mauritius, Mexico, Moldova, Mongolia, Morocco, Mozambique, Myanmar, Namibia, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Romania, Russian Rep., Rwanda, Saudi Arabia, Senegal, Sierra Leone, Singapore, Slovakia, Slovenia, Solomon Islands, Somalia, South Africa, Spain, Sri Lanka, Sudan, Suriname, Swaziland, Sweden, Switzerland, Syria, Tajikistan, Tanzania, Thailand, Togo, Trinidad, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, United States, Uruguay, Uzbekistan, Venezuela, Viet Nam, Yemen, Zambia, Zimbabwe

A. 2. Countries as ranked by the OECD (2000)

Group	Countries
4	Germany, Australia, Austria, Bahamas, Barbados, Belgium, Canada, Czech Republic, Denmark, Spain, USA, Finland, France, Greece, Hungary, Ireland, Iceland, Israel, Italy, Japan, Luxemburg, Malta, Netherlands, New Zealand, Norway, Poland, Portugal, United Kingdom, Surinam, Sweden, Switzerland (31)
3	Argentina, Brazil, Chile, South Korea, Ecuador, Ethiopia, Fiji, Hong Kong, India, Jamaica, Mexico, Niger, Papua New Guinea, Peru, South Africa, Turkey, Venezuela, Zambia (18)
2	Bangladesh, Bolivia, Botswana, Columbia, Guatemala, Philippines, Haiti, Honduras, Indonesia, Jordan, Kenya, Malaysia, Mauritius, Morocco, Pakistan, Panama, Singapore, Sri Lanka, Swaziland, Thailand, Taipei, Uruguay, Zimbabwe (23)
1	China, Egypt, Iran, Kuweit, Syria, Tanzania (6)

A.3. Countries as ranked by Busse (2003) on the FL indicator

Score	Countries
1	Bangladesh, Cambodia, China, Congo, Democratic Republic of Congo, Haiti, India, Madagascar, Nepal, Sierra Leone, Sudan, Viet Nam (12)
2	Benin, Bolivia, Brazil, Burkina Faso, Central African Republic, Costa Rica, Cote d'Ivoire, Dominican Republic, Ethiopia, Ghana, Guatemala, Honduras, Kenya, Mali, Mauritania, Mexico, Niger, Pakistan, Paraguay, Peru, Philippines, Senegal, Sri Lanka, Swaziland, Tanzania, Thailand Togo, Zimbabwe (28)
3	Albania, Algeria, Angola, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahamas, Barbados, Belarus, Belize, Botswana, Bulgaria, Burundi, Cameroon, Canada, Cape Verde, Chad, Chile, Colombia, Croatia, Cyprus, Czech Rep., Denmark, Ecuador, Egypt, El Salvador, Estonia, Fiji, Finland, France, Gabon, Gambia, Germany, Greece, Guinea Bissau, Guyana, Hungary, Iceland, Indonesia, Iran, Israel, Italy, Jamaica, Japan Jordan, Kazakhstan, Korea, Rep., Kyrgyzstan, Latvia, Lebanon, Lesotho Lithuania, Macedonia, Malawi, Malaysia, Maldives Islands, Malta, Mauritius, Moldova, Mongolia, Morocco, Mozambique, New Zealand, Nicaragua, Nigeria, Norway, Panama, Papua New Guinea, Poland, Portugal Romania, Russia, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Syria, Trinidad, Tunisia, Turkey, Uganda, Ukraine, UK, USA, Uruguay, Uzbekistan, Venezuela, Zambia (92)

Appendix B

Countries with CL above 20%: their level of industrialisation and scores on FACB

	CL	VA man p.c.	ILO	OECD
Lesotho	21.282	38.445	5	.
Mauritania	22.848	33.771	5	.
Myanmar	23.568	.	10	.
Haiti	23.788	.	4	2
Cameroon	23.876	63.569	7	.
Cambodia	24.108	15.446	5	.
Nigeria	24.646	13.377	8	.
Congo	25.658	47.699	4	.
Angola	26.484	32.838	4	.
Benin	26.890	33.582	2	.
Togo	27.532	31.290	5	.
Zimbabwe	28	71.954	6	2
Sudan	28.198	21.145	10	.
Bangladesh	28.692	54.413	9	2
Senegal	28.924	82.225	5	.
Congo, Dem. Rep	28.984	7.654	8	.
Guinea Bissau	32.266	21.257	4	.
Mozambique	32.966	25.128	.	.
Malawi	32.966	21.512	5	.
Madagascar	34.774	27.356	2	.
Gambia	35.094	16.980	2	.
Chad	37.312	28.651	7	.
Tanzania	37.932	17.837	4	1
Kenya	40.010	38.043	6	2
Rwanda	41.500	30.227	10	.
Ethiopia	41.580	6.914	8	3
Nepal	43.326	19.978	4	.
Niger	44.210	12.688669	4	3
Uganda	44.392	25.916002	4	.

Burkina Faso	46.512	35.244	2	.
Burundi	48.688	9.478	3	.
Mali	52.490	9.793	3	.

Appendix C

Correlation matrices of the respective measures of workers rights and the globalisation measures

ILO index

	ILO index	trade share	exp share	merch Exports	labour-intens exp	manuf exp	machinery exp	exp of carpets	FDI share	EPZ
ILO ind	1.0000000									
Trade share	-0.39241905	1.0000000								
Exp share	-0.40152679	0.97261562	1.0000000							
Merch exp sh	-0.30742052	0.83388428	0.89219399	1.0000000						
Labour-int exp	0.14778173	-0.060859989	-0.093026628	-0.12283714	1.0000000					
Manuf exp sh	-0.25565124	0.34830727	0.40948638	0.48875680	-0.037376052	1.0000000				
Machin exp sh	-0.23630365	0.50887055	0.58577110	0.65074672	-0.087592431	0.47065959	1.0000000			
Exp of carp sh	-0.0096174264	0.22983485	0.22043413	0.23611685	0.38367806	0.42957457	0.22165734	1.0000000		
FDI share	-0.32001462	0.21786498	0.24142277	0.27918308	-0.13129965	0.19625781	0.26430146	0.32856293	1.0000000	
EPZ	0.49948909	-0.12443874	-0.17723659	-0.14421743	0.23194997	-0.28120798	-0.15926095	0.048429369	-0.18407996	1.0000000

Forced labour

	FL index	trade share	exp share	merch exports	labour-intens exp	manuf exp	machinery exp	exp of carpets	FDI share	EPZ
FL ind	1.0000000									
Trade share	0.29830897	1.0000000								
Exp share	0.31079758	0.96279634	1.0000000							
Merch exp share	0.23125836	0.80294368	0.86909120	1.0000000						
Labour-int exp	-0.32298415	-0.017386456	-0.040401188	-0.064481929	1.0000000					
Manuf exp sh	0.27189009	0.43321551	0.53059564	0.67910395	-0.057416659	1.0000000				
Machin exp sh	0.10576466	0.50265863	0.59808823	0.71125218	-0.073696347	0.50008311	1.0000000			
Carpets exp sh	0.0073239527	0.30491425	0.28769745	0.33456221	0.36399928	0.38916889	0.19846864	1.0000000		
FDI share	0.19896133	0.12301154	0.12188572	0.14462363	-0.12079234	0.20328460	0.16755121	0.31263511	1.0000000	
EPZ	-0.51994343	-0.093261954	-0.13801876	-0.092018138	0.21879244	-0.29677317	-0.14995174	0.029807563	-0.17317763	1.0000000

GDI

	GDI index	trade share	exp share	merch exports	labour-intens exp	manuf exp	machinery exp	exp of carpets	FDI share	EPZ
GDI ind	1.0000000									
Trade share	0.23719502	1.0000000								
Exp share	0.34330976	0.96662974	1.0000000							
Merch exp	0.35582584	0.85274409	0.91804244	1.0000000						
Labour-int exp	-0.41152339	-0.043690710	-0.072465599	-0.12085023	1.0000000					
Manuf exp	0.34513179	0.38115495	0.45241783	0.50972328	-0.032775669	1.0000000				
Machin exp	0.40646491	0.53131720	0.61444174	0.66156580	-0.10441189	0.48593081	1.0000000			
Carpets exp	-0.044712679	0.27650822	0.25305696	0.26108835	0.35396740	0.41158487	0.19543284	1.0000000		
FDI share	0.33146437	0.23981986	0.25438476	0.27026159	-0.15463948	0.17831281	0.24648460	0.29717551	1.0000000	
EPZ	-0.43981069	-0.11844347	-0.16384260	-0.14441083	0.22344997	-0.27583654	-0.16607183	0.025680639	-0.19975474	1.0000000

Child Labour measure

	CL meas	trade share	exp share	merch exports	labour-intens exp	manuf exp	machinery exp	exp of carpets	FDI share	EPZ
CL meas	1.0000000									
Trade share	-0.31484833	1.0000000								
Exports sh	-0.36471102	0.96658871	1.0000000							
Merchand exp	-0.31277790	0.83075119	0.89391379	1.0000000						
Labour-int exp	0.28126738	-0.065153597	-0.088885128	-0.11847713	1.0000000					
Manuf exp	-0.29921148	0.33288100	0.40989180	0.48679457	-0.026529267	1.0000000				
Machinery exp	-0.24108661	0.49509514	0.58355288	0.64662643	-0.079484070	0.47814199	1.0000000			
Carpets exp	-0.027047249	0.25338742	0.23573550	0.25340691	0.36558766	0.40421533	0.20770941	1.0000000		
FDI share	-0.19521895	0.21000032	0.22942506	0.26581785	-0.13332235	0.18728498	0.25768397	0.30491905	1.0000000	
EPZ	0.44744306	-0.13034117	-0.17301105	-0.14062658	0.23662176	-0.26513621	-0.14914603	0.037201901	-0.18520359	1.0000000

Appendix D

Non-Industrialised Countries: those with value added of manufacturing per capita below 70 US $

Central African Rep., Tajikistan, Lao People's Rep., Yemen, Bhutan, Guinea-Bissau, Eritrea, Comoros, Moldova, Azerbaijan, Kyrgyzstan, Uzbekistan, Mongolia, Viet Nam, Ghana, Nicaragua, India, Sierra Leone, Zambia, Pakistan, Lesotho, Mauritania, Cameroon, Cambodia, Nigeria, Congo, Angola, Benin, Togo, Sudan, Bangladesh, Democratic Rep. of Congo, Guinea, Malawi, Mozambique, Madagascar, Gambia, Chad, Tanzania, Kenya, Rwanda, Ethiopia, Nepal, Niger, Uganda, Burkina Faso, Burundi, Mali

Data Appendix

Variable	Definition	Source
ILO index of FACB	The ILO index of freedom of association and collective bargaining rights, scale from 1 to 10, 1 – best compliance, 2000	On request from D. Kucera
OECD index of FACB	The OECD index of freedom of association and collective bargaining rights, scale 1-4, 1-worst compliance, 2000	OECD (2000)
FL	Forced labour index, scale 1-3, 1 – extensive practices of forced labour, 2000	Busse (2003) and ILO (2001)
GDI	Index of gender-related development measuring the extent of discrimination against women in education and working life, rescaled 0-10, 0 – very high discrimination, 2000	UNDP (2002), s. also http://hdr.undp.org/reports/global/2002/en/pdf/backtwo.pdf
CL	Share of children aged 10-14 who work, 2000	WB (2003)
GDP	GDP per capita, PPP (current international $), 1998	WB (2003)
PR	Political rights index, 1998	Freedom House (2000)
URB	Urban population as percent of total population, 1998	WB (2003)
IND	Value added of manufacturing per cap, 1998	WB (2003)
EPZ	A dummy for the existence of an export-processing zone, 1998	On request from D. Kucera
LI	Share of labour-intensive exports in total exports, 1998	On request from M. Busse

TRADE	Share of trade in GDP, 1998	WB (2003)
FDI	Share of FDI in GDP, 1998	WB (2003)
EXP	Share of exports of goods and services in GDP, 1998	WB (2003)
MER	Share of merchandise exports in GDP, 1998	WB (2003)
MAN	Share of manufacturing exports in GDP, 1998	WB (2003)
Machinery exp sh	Share of machinery exports in GDP, 1998	WB (2003)
Carpets exp sh	Share of woven carpets in GDP, 1998	ITC (2003)

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