Chapter 9

Trade and the Quality of Employment: Asian and Non-Asian Economies

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This paper compares the evolution of working conditions and core labour rights in Asian and non-Asian economies in the late 20th and early 21st century and analyses the relationship between labour conditions and international trade and investment flows. Labour conditions generally improved throughout the globalisation of recent decades. Real per capita income growth remains a powerful source of improved labour conditions, and the effect of trade on working conditions is mainly indirect through its impact on GDP. Trade has had both direct and indirect impacts on some labour rights, but the direct effects seem to have diminished by the early 21st century. We find no evidence that persistent differences in labour conditions between Asia and the rest of the world can be explained by differences in growth and international trade. We also find no evidence that countries with poor labour conditions attract disproportionate flows of foreign direct investment. Instead, FDI flows seem mainly influenced by considerations of market size, investment risks, and the share of trade in GDP. Even after holding those influences constant, the Asia region receives a comparatively small share of world FDI inflows. Finally, micro-studies confirm that multinational companies pay higher wages than host-country firms.

9.1. Introduction[1]

This paper focuses on how international trade and investment influence the *quality* of employment in countries. There will be little discussion of the relationship between trade and the level of employment – a topic that is addressed by other papers of this volume. Instead, the focus is on how global trade and investment influence *labour conditions* – the working conditions and core labour rights experienced by workers.

Economic theory has the most to say about how free trade should influence employment and wages. But since the writings of Adam Smith, economists have stressed that wages and fringe benefits provide incomplete measures of labour's compensation for work. Prospective employees consider both the monetary and nonmonetary benefits and costs of working conditions in making job choices. Yet, the effects of international trade and investment on nonmonetary working conditions rarely receive careful attention.

Modern discussions of labour conditions go well beyond monetary and nonmonetary working conditions, however. For over 25 years, international organisations have also stressed the advancement of a core set of labour rights – freedom of association, nondiscrimination, elimination of forced labour, and reduction of child labour. Increasingly, there is interest in whether trade and other mechanisms of globalisation advance or retard these rights, but theoretical discussions of trade provide little guidance on these questions. This paper explores the relationships between working conditions, core labour rights, and the growth of international trade and investment, emphasising differences between Asia and the rest of the world.

After comparing globalisation trends in Asia with other regions, we review how labour conditions changed during the globalisation of the late 20th and early 21st centuries, contrasting developments in Asian and non-Asian countries (Section 9.2). We then discuss the mechanisms through which trade might influence working conditions and labour rights and estimate the impact of trade flows on dimensions of employment quality (Section 9.3). This section also examines evidence on labour conditions in Asian export processing zones. Section 9.4 examines the links between direct foreign investment, the activities of multinational companies, and labour conditions. The final section presents our conclusions.

9.2. Labour conditions in Asian and non-Asian economies

We begin by reviewing globalisation trends in Asia and four other broad regions between 1990 and 2008. For our primary interest in how cross-border economic activity influences working conditions and core labour rights, the evolution of international flows of economic activity is most appropriate. Trade policies enhance or retard these flows, however, and trade policy negotiations often provoke strong sentiments regarding the links between trade liberalisation and labour conditions. We therefore report measures of each of these dimensions of globalisation.

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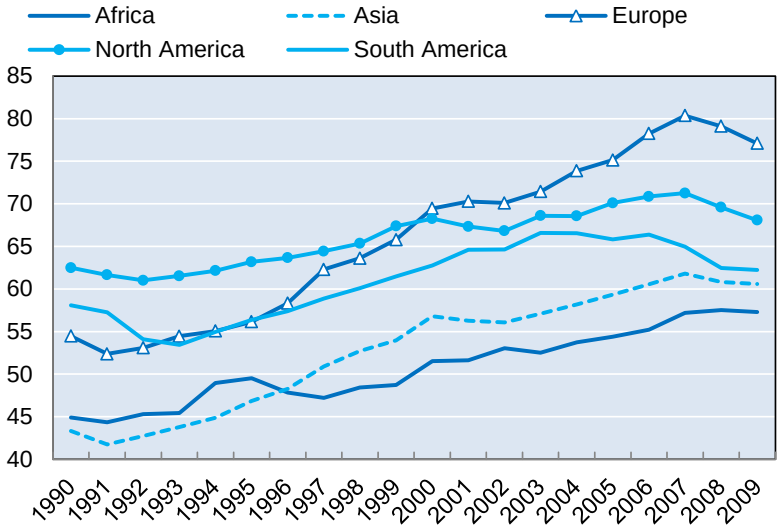
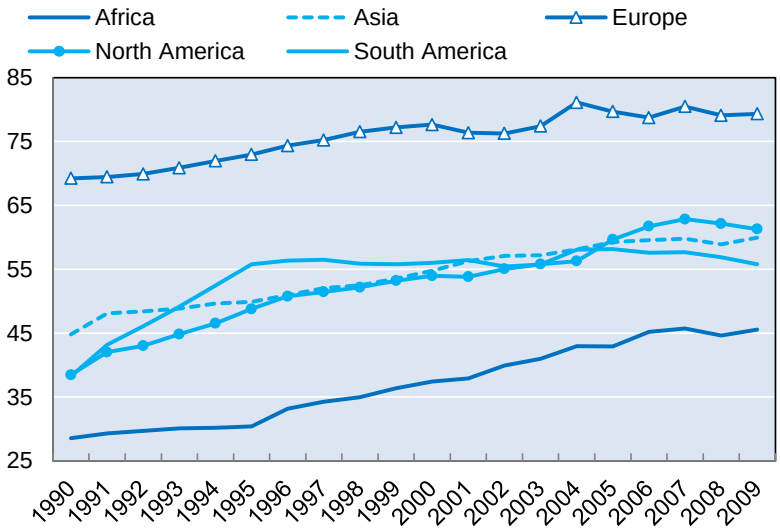
The index of international economic flows (Figure 9.1) is a weighted average of trade, foreign direct investment (FDI) stocks, portfolio investment, and income payments to foreign nationals, all as a percent of GDP. Higher values indicate greater economic integration. The index of trade restrictions (Figure 9.2) is a weighted average of the mean tariff rate, hidden import barriers, capital account restrictions, and taxes on international trade, scaled so that higher values imply greater globalisation (e.g. lower tariffs and/or fewer import barriers). As far as we know, this is the only measure of trade policies providing annual observations into the 21st century.[2]

Figure 9.1. Index of international economic flows, 1990-2008



Source: *http://globalization.kof.ethz.ch/*

Figure 9.2. Index of absence of trade restrictions, 1990-2008



Source: *http://globalization.kof.ethz.ch/*

2. These indices are respectively the KOF index of actual economic flows and index of trade restrictions. The data along with details on the construction of the indices are available at: *globalization.kof.ethz.ch/*

Over most of the 1990-2008 period, cross-border transactions have been highest in Europe and lowest in Africa (Figure 9.1). Asia is in an intermediate position, but below the Americas. The regional rankings show little change over two decades, because until 2006-07 the flows have increased in all regions. By this measure, however, the extent of international economic integration became more dispersed since 1995, with Europe pulling away from the Americas and Asia pulling away from Africa.

Turning to the evolution of trade restrictions in Figure 9.2, Europe (fewest restrictions on international commerce) and Africa (most restrictions) again represent the extremes. Asia and the Americas have an intermediate level of restrictions. Trade restrictions declined in all regions from 1990 until midway through the first decade of the 21st century.[3] Since then, but with differences in timing, trade restrictions have increased modestly in all regions. The flow and policy measures are closely related: the simple correlation between the two indices exceeds .89 in all regions. To summarise, whether measured by flows of international commerce or changes in trade policies since 1990, globalisation expanded in all regions until quite recently. Our main question in the rest of the paper is how advances in and retreats from globalisation influence labour conditions.

We first contrast working conditions and labour rights in Asian countries with those in the rest of the world at the end of the 20th century. We then examine how labour conditions changed in the first decade of the 21st century. Working conditions include measures of pay (annual compensation per manufacturing worker), work hours (weekly work hours, annual work hours, and percent working more than 40 hours per week), and job safety (fatal industrial accident rate in manufacturing). Labour rights include indicators of freedom of association (indices of civil liberties and collective bargaining rights, scaled so that low values indicate superior rights), child labour (labour force participation rate of children 10 to 14years old for 1995-2000 data and children 5 to 14 years old for post-2000 data), nondiscrimination (gender pay differential), and forced labour (number of types of forced labour and number of forced labourers). Some of these indicators exist only for one year or time period, and data availability varies widely for each country. For no measure of labour conditions do we have data from every Asian country,[4] for example. In the empirical analyses, the value of each country observation is weighted by its labour force. (See Appendix 9.A1 for further discussion of these measures and their sources.)

In the late 20th century, monetary compensation was comparatively low, and all measures of work hours were comparatively high in Asian countries (Table 9.1). Job safety (inversely indicated by the fatal job accident rate) was greater in Asian countries. Turning to measures of labour rights, both measures of freedom of association – the Freedom House index,[5] which includes but is not limited to workplace considerations, and the FACB index, which focuses on collective bargaining rights – indicate that freedom of association is stronger on average in non-Asian countries. (Recall that each of these indices is constructed so that lower scores denote superior rights.) Child labour force participation is roughly the same in each set of countries.

3. Recall that the index reported in Figure 9.2 is scaled so that higher values represent fewer restrictions.

4. Data on labour conditions are most frequently available for the People's Republic of China (PRC), India, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taipei, China and Thailand. (NB, here and below, the economy known as "Chinese Taipei" according to OECD standard usage, is referred to as "Taipei, China", according to ADB usage.)

5. The annual Freedom House index is not limited to worker freedom of association. However, an index of worker rights developed for a 2010 study (Freedom House 2010) was highly correlated with the general Freedom House index for that year. Therefore, the general index, which is available annually, appears to provide an adequate measure of worker rights. See Appendix 9.A1 for further discussion.

Both measures of forced labour are higher in Asian countries. On average, they have more varieties of forced labour and more people subject to forced labour. Finally, there is less gender wage discrimination in Asian countries.

Table 9.1. Labour conditions in Asian and non-Asian countries, late 20th century

	Asian	Non-Asian
Working Conditions		
Annual compensation (1995)	2 643	17 630
Hourly compensation (1997)	1.5	13.1
Weekly work hours (1995)	46.7	39
Annual work hours (1997)	2 123.5	1 909.7
Percent working over 40 hours (1995)	73.4	57.3
Fatal accident rate (2000)	5.5	5.9
Labour Rights		
Child labour force participation rate (2000)	10	9
Civil liberties Index (2000)	4.6	3.1
Collective bargaining rights (mid-1990s)	7.7	5
Net gender wage differential	-0.085	-0.105
Forced labour varieties (mid-1990s)	1.26	0.03
Number of forced labourers (mid-1990s)	5 312 927	39 670

Note: Labour force weighted estimates.
Source: See Appendix 9.A1.

We turn next to the question of how labour conditions *changed* during the first decade of the 21st century. Tracking the changes in conditions requires before and after data for a common set of countries – a requirement that further reduces sample sizes and eliminates meaningful comparisons for some measures. Nonetheless, previous studies find a broad improvement in working conditions and labour rights during the late 20th century (Flanagan, 2006, Chapter 2).

With the exception of work hours, data for the early years of the 21st century also show improving labour conditions around the world (Table 9.2, covering changes from 1999 to 2008).[6] Changes over the decade narrowed differences in pay between Asian and non-Asian countries but widened differences in work hours and civil liberties. During this period, per capita (PPP adjusted) GDP grew at virtually identical rates in the two sets of countries, but the trade share of GDP advanced more rapidly in Asian countries. The data send a clear message: *If* the postwar globalisation had a negative impact on labour conditions, its influence must have been overwhelmed by other factors.

There is considerable national variation within regional averages, and Table 9.3 reports data for several Asian countries. Nonetheless, one of the most striking patterns we observe is the rise in wages in Asia, especially that of its developing countries (Table 9.3A). For countries with available data over the first decade of the 21st century, only Cambodia saw a shrinking of its workers' compensation, while the rest averaged a decade-long continual rise in annual compensation of 10% per year. This is especially significant in improving labour conditions for the three most populous countries in the region: the People's Republic of China (PRC), India and Indonesia.

6. Some of the measures used earlier have changed, and others are no longer available. See Appendix 9.A1 for definitions on the measures used for 1999-2008.

Furthermore, the rise in annual compensation has been driven by increases in hourly pay, rather than in the total hours worked, which increased only very slightly in Indonesia (1%), Sri Lanka (0.4%) and the Philippines (0.1%). In fact, hours worked declined slightly from 2004 to 2008 not only for more developed countries such as Japan and Korea, but also for the PRC and India as well (Table 9.3B). It would be a cause of concern if total hours worked showed drastic reduction, given that pervasive underemployment remains a challenge to quality jobs in developing Asia. To illustrate this, in 2000 the share of employees working at least 40 hours per week is above 85% for Korea, and only less than half in Indonesia, a country where underemployment (rather than outright unemployment) has traditionally increased following cyclical downturns. The share of Indonesian workers who were full time increased slightly to 51.4% by 2005, but this is still far below the rates seen in developed Asia (Table 9.3C).

Other non-monetary measurements of labour conditions also show robust signs of improvements across Asia. For example, rates of fatal injuries have declined across the economies observed, with the exception of Myanmar (see Table 9.3D).[7] In Thailand, the reduction in fatal injury rates is notable, with the fatal injuries rate decreasing from 24.5 to 9.1 per one hundred thousand workers from 1992 to 2007.

Table 9.2. Labour conditions, recent developments in 21st century

	2008		% Change since 1999	
	Asian	Non-Asian	Asian	Non-Asian
Working Conditions				
Hourly compensation	3.7	19.43	236.6	152.6
Annual Work Hours	2 156	1 914	2.3	0.2
Job Accident Rate	4.3	n.a.	-22.2	n.a.
Labour Rights				
Child Labour**	14.8	14.2	-21.4	6.9
Civil Liberties	4.5	2	-8.1	-22.3

Note: Labour force weighted estimates. **: Child labour data come from ILO (2010), referring to children aged 5-14 years, and thus not comparable to Table 9.1.
Source: See Appendix 9.A1.

7. Myanmar more than doubled its reported rate of fatal injuries between 2000 and 2008: from 3 per 100 000 workers to 8.6 workers.

Table 9.3A. Average compensation

	Annual (USD)			
	2001[a]	Most recent	*Year*	Compounded annual growth rate, %
Bangladesh	631	1 016	*2010*	5.4
Cambodia	572	456	*2009*	-2.8
PRC	1 495	4 640	*2008*	17.6
Hong Kong, China	16 872	17 923	*2009*	0.8
India	1 161	2 027	*2007*	9.7
Indonesia	323	620	*2006*	13.9
Japan	32 506	41 423	*2009*	3.1
Kazakhstan	1 415	5 141	*2008*	20.2
Korea	16 964	30 598	*2008*	8.8
Kyrgyzstan	361	1 277	*2007*	23.4
Macau, China	7 188	13 496	*2010*	7.3
Malaysia (1)	2 527	3 599	*2007*	6.1
Philippines	1 151	1 661	*2008*	5.4
Singapore	21 154	33 737	*2009*	6
Sri Lanka	568	957	*2008*	7.7
Taipei, China	14 755	16 126	*2009*	1.1
Tajikistan	119	569	*2007*	29.8
Thailand	1 785	3 242	*2009*	7.7
Viet Nam	871	2 271	*2008*	14.7

Note: Average compensation for employees and wage earners across all sectors. (NB, here and below, the economy known as "Chinese Taipei" according to OECD standard usage, is referred to as "Taipei, China", according to ADB usage.") 1-Average monthly wages in manufacturing sector. a) 2001 data: Nepal-1999; Macau-2003, Malaysia-2004.

Sources: ILO-Laborsta, CEIC.

Table 9.3B. Hours worked

	Weekly				Average annual % change	
	2001(a)	2004 (b)	2008(c)		2001-04	2004-08
PRC (1)	45.4 a	45.5	44.6		0.2	-0.5
Hong Kong, China	46.5	47.1	45.6		0.4	-0.8
India (5)	46.7	47.0	46.9	c	0.2	-0.1
Indonesia	38.9	39.5	41.0		0.6	1.0
Japan (3)	42.2	42.0	40.7		-0.2	-0.8
Kazakhstan (1)	35.0	36.0	36.0		1.0	0.0
Korea	50.4	48.7	46.0		-1.1	-1.4
Kyrgyzstan (1)	35.7	36.3	35.7	c	0.6	-1.7
Macau, China	48.1	48.0	46.9		-0.1	-0.6
Malaysia	47.7	47.4	46.9		-0.2	-0.3
Philippines (4)	40.5	41.6	41.7	c	0.9	0.1
Singapore (1) (2)	46.2	46.3	46.3		0.1	0.0
Sri Lanka (1) (2)	50.3	47.0	47.7		-2.2	0.4
Taipei, China (1)	42.6	44.0	42.6		1.1	-0.8
Thailand (1)	42.4	48.9 b			7.7	

Note: 1-Employees or wage earners; 2- Hours paid for; 3-1998-2002 ISIC Rev.2; 4-1998-2000 ISIC Rev.2; 5 - Ave weekly hours worked in manufacturing sectors, employees and wage earners.

a) 2001 data: China-2003; Nepal and Viet Nam- 1999. b) 2004 data: Thailand-2003. c) 2008 data: India-2006; Kyrgyztan-2005; Philippines-2007.

Sources: ILO-Laborsta, CEIC.

Table 9.3C. Share of employees working at least 40 hours per week

	1995(a)		2000(b)		2005(c)		Average annual % change 1995-2000	Average annual % change 2000-05
Indonesia	46.4	a	48.7		51.4	c	1.2	1.8
Japan	51.4		70.2		67		7.3	-0.9
Korea	89.7		85		82.8		-1	-0.5
Macau, China	82.9	a	78.5		82.5	c	-1.3	1.3
Philippines (1)	64.8		66.1		62		0.4	-1.2
Sri Lanka	62.8	a	63.5	b	55.4	c	0.4	-3.2
Taipei, China (1)			92.6		93			0.1
Thailand	84.6		81.3				-0.8	

Notes: 1-Breaks in the series: Philippines-between 2002 and 2003; Taipei, China -between 2005 and 2006.
a) 1995 data: Indonesia, Macau, Sri Lanka-1996.
b) 2000 data: Sri Lanka-1999.
Sources: ILO Key Indicators of the Labour Market, CEIC, Authors' calculations.

Table 9.3D. Rate of fatal injuries

Per 100 000 employees	1992	2000a	2008b	Average annual % change 1992-2000	Average annual % change 2000-08
Hong Kong, China	10	8	6.8	-2.5	-1.88
Kazakhstan (1)	14.8	11.3	8.2	-2.96	-3.43
Kyrgyzstan (1)	9.5	7	5	-3.29	-3.57
Malaysia	7.7	11.3		5.84	
Myanmar		3	8.6		37.33
Singapore (1)	15	15.6	2.8	0.8	-7.46
Taipei, China	10.3	7.7		-3.16	
Thailand (1)	24.5	11.3	9.1	-6.73	-2.78
Per 1 000 000 hours worked	1992	2000	2008	Average annual growth 1992-2000	Average annual growth 2000-08
Japan	0.01	0.01	0	0	-12.5
Korea	0	0.06	0.05		-2.08
Philippines	0.08	0.04		-6.25	
Sri Lanka		0.01	0.01		-1.39

Breaks in the series: Bahrain-between 2007 and 2008; Kazakhstan-between 1996 and 1998 (No 1997 data); Kyrgyzstan-between 1996 and 1997; Singapore-between 1997 and 2008 (no data from 1998-2007); Thailand-between 1994 and 1995
* 2000 data: Myanmar-2003, Singapore-1997; ** 2008 data: Thailand-2007.
Source: ILO Laborsta.

This improvement in occupational safety is broadly accompanied by improvements in civil liberties in the developing Asian economies: in the decade of 1990-2000, nine economies showed improvements in civil liberty scores. These improvements were sustained through the decade of 2000-10, with only East Timor and Thailand were classified as having worsened civil liberties during the decade (Table 9.3E).

Perhaps more importantly, the incidence of child labour in Asia decreased from 2004 to 2008: from 18.8% to 14.8% of all children aged 5 to 14 years in the region. This is the more remarkable given that the rest of the world, especially Africa, saw a *rise* in the labour force participation of children aged 5-14 years during the same time frames. Again, this decline in child labour is broadly true for individual Asian countries. For the countries for which more

recent data is available, we see that overall, child labour decreased for Bangladesh, Lao, Philippines, Sri Lanka, Tajikistan and Viet Nam (Table 9.3F).

Nonetheless, these descriptions do not establish that globalisation *improves* labour conditions or even help us understand *how* globalisation *might* influence working conditions and labour rights. Having described the evolution of globalisation and labour conditions, we now analyse linkages between trade and labour conditions in the early 21st century.

Table 9.3E. Civil liberties

				Change	
	1972	1973	2010	1990-2000	2000-10
Bangladesh	4	4	4	-1	0
Brunei	5	5	5	0	0
Burma	5	5	7	0	0
Cambodia	5	5	5	-1	-1
PRC	7	7	6	-1	0
East Timor			4		1
India	3	3	3	0	0
Indonesia	5	5	3	-1	-1
Japan	1	1	2	1	0
Kazakhstan			5		0
Kyrgyzstan			5		0
Laos	5	5	6	-1	0
Malaysia	3	3	4	1	-1
Philippines	6	5	3	0	0
Singapore	5	5	4	1	-1
South Korea	6	6	2	-1	0
Sri Lanka	3	3	4	-1	0
Taipei, China	5	5	2	-1	0
Tajikistan			5		-1
Thailand	5	3	4	0	1
Viet Nam			5	-1	-1

Note: The political rights and civil liberties categories contain numerical ratings between 1 and 7 for each country or territory, with 1 representing the most free and 7 the least free.
Source: Freedom House *(/www.freedomhouse.org/template.cfm?page=439)*.

Table 9.3F. Percentage of children aged 5-14 engaged in child labour

	Base data	Year	Latest data	Year	Average annual change in percentage pts
Bangladesh	14.23	2002-03	12.80	2006	-0.36
Cambodia	44.80	2001			
India (2)	5.22	2001	11.80	2005-06	1.32
Indonesia	8.50	1998	6.90	2009	-0.15
Kazakhstan			2.20	2006	
Kyrgyzstan			3.60	2006	
Lao PDR (1)	31.10	2000	11.30	2006	-3.30
Philippines	11.00	2001	3.48	2009	-0.94
Sri Lanka	14.92	1999	8.20	2006	-0.96
Tajikistan (1)	12.40	2000	10.00	2005	-0.48
Thailand			8.30	2006	
Timor-Leste	4.20	2002			
Viet Nam (1)	24.40	2000	15.80	2006	-1.43

Note: 1-Base data: E.V. Edmonds (2008) 2-Base Data: National Commission for Protection of Child Rights (India) and Office of the Registrar General and Census Commissioner, India.
Sources: ILO SIMPOC; *www.childinfo.org.*

9.3. Trade and labour conditions

In recent decades, the question of how free trade may influence labour conditions has become a contest of ideas. Traditional trade theories imply that by pursuing comparative advantage, countries will move labour into sectors where its productivity and hence its (monetary plus nonmonetary) compensation is highest. This argument implies that countries with open trade policies should have superior labour conditions, *ceteris paribus*. At the other extreme are arguments that free trade will degrade labour conditions as international competitors seek to gain advantage by cutting labour costs.

If we are to isolate the effects of trade and other mechanisms of globalisation on labour conditions, we must first consider how working conditions and labour rights evolve in closed economies. Not surprisingly, the foremost influence on labour conditions is a country's level of development. Countries with higher income per capita tend to have higher wages, shorter hours of work and safer jobs. High-income countries also have stronger labour rights – stronger civil liberties and freedom of association, lower child labour force participation, and less forced labour. (Only a measure of discrimination – the net gender wage differential—is not significantly related to a country's level of development.) Over time, countries that grow most rapidly experience the most rapid advances in working conditions. To an important extent, the inequality in pay, nonmonetary working conditions and labour rights observed around the world result from differences in the level of economic development and national economic growth rates (Flanagan, 2006, Chapter 3).

Recognising the powerful influence of per capita GDP opens broad short-term and long-term policy menus for advancing labour conditions. In the short-run, severe recessions tend to degrade the labour conditions of the employed in addition to reducing employment and output. Deploying a nation's fiscal and monetary policy weapons to remove gaps between actual and potential GDP restores both the quantity *and quality* of jobs. In the long run, even under autarky, a country's labour conditions can improve with higher rates of technical progress, investments in physical and human capital, and the establishment of institutions that clarify property rights enforce contracts and reduce corruption, for example.

Stressing the important role of economic growth and development should not obscure the huge variance in outcomes around this relationship. Countries at a given level of development vary widely in their labour conditions. The fact that some countries have much better conditions while others have much worse conditions than one would predict from their level of development reflects a myriad of additional factors that influence labour conditions. The rest of this section analyses the influence of trade flows.

Direct and indirect effects of trade

International trade theories predict that free trade will improve a country's working conditions indirectly by increasing its per capita income. Whether comparative advantage or economies-of-scale motivates trade, a country's resources are used more productively in a free-trade environment than under autarky. The greater efficiency permits higher monetary and/or nonmonetary compensation. Transfers of technology that may accompany increased trade flows likewise raise productivity and compensation. In each case, free trade should improve working conditions to the extent that it raises per capita income.

To the extent that trade liberalisation raises per capita income, trade itself becomes one mechanism for improving a country's working conditions and labour rights. A large literature has explored and debated the lines of causality between openness to trade and per capita income. After sorting out the significant methodological issues involved in identifying a

relationship, key studies and literature reviews conclude that trade liberalisation tends to raise economic growth (Berg and Krueger, 2003; Wacziarg and Welch, 2003). This channel provides what we label the *indirect* effect of globalisation on labour conditions. Important distributional effects accompany the long-run gains from trade liberalisation, so that efforts to record the short-run impact of trade liberalisation on working conditions with aggregate data pick up some average of the impact on gainers and losers.

Arrayed against the predictions of trade theories are claims that international competitive pressures degrade working conditions and labour rights in countries with open trade policies. *How* trade would diminish working conditions is a matter of some mystery. Open trade policies raise foreign demand for a country's exports and for the services of workers who produce those exports. What then happens to wages and nonmonetary working conditions depends on labour supply conditions, which themselves are determined by the domestic labour market alternatives available to workers. Where there is substantial unemployment or underemployment, increased export demand will raise employment without necessarily improving pay and nonmonetary working conditions. This situation may be the norm in countries with significant reserves of underemployed rural agricultural labour or high urban unemployment rates. The additional employment derived from increased export demand will raise total wage income, while producing little change in the employment conditions of *individual* workers.

For economies with little unemployment, export firms will have to meet additional demand by attracting workers away from other jobs in agriculture, the informal sector, or elsewhere in the formal sector. As export firms improve working conditions to attract workers, non-export firms may improve working conditions in an effort to retain their workers. Labour market competition effectively spreads the benefits of increased export demand to other sectors. Trade liberalisation may also reduce the demand in import-competing industries, so to an extent, the positive impacts of trade on labour conditions rest on the mobility of resources from import-competing to export industries.

Convincing scenarios in which increased export demand degrades working conditions remain elusive. If increased export production raised monopsony power, trade liberalisation could produce such degradation. Nonetheless, it is hard to imagine how increased export production would reduce workers' choice of employers.

These conceptual arguments and the judgment that trade liberalisation does not raise monopsony power in export sectors are supported by comparisons of wages in export and non-export firms in both developing and industrialised countries. These studies invariably find that after controlling for industry and firm size, export firms pay higher wages than non-export firms, and the "export wage premium" is largest in less developed countries (Aw and Batra, 1998; Bernard and Jensen, 1995; Hahn, 2004; Van Biesebroeck, 2003). Particularly for the poorest countries, international competition does not lead exporters to reduce wages below national norms according to these studies. Since the studies rarely can control for all worker skills, the possibility that the employees of exporters have more education, training, and experience than the employees of non-exporting firms remains. Nevertheless, one can doubt that unobserved worker quality differences account for wage premia as large as 10-12% in Korea, 15-17% in Taipei, China and 40% in sub-Saharan Africa.

Trade and labour conditions in the late 20th century

Econometric analyses reported in an earlier study tested whether a country's openness to international competition was significantly related to labour conditions in the late 20th century, given a country's level of development. As implied by international trade theories, openness influenced working conditions only indirectly, by raising per capita income, in both

cross-section instrumental variables and fixed effects estimation. The openness measures, which tested for a direct effect, were not statistically significant. The latter finding also ruled out a significantly negative impact of international competition on working conditions. In short, trade liberalisation improved working conditions mainly by raising per capita income (Flanagan, 2006).

International trade theories offer no direct predictions on the relationship between free trade and the labour rights. Nonetheless, increased trade alters some of the incentives that influence core labour rights. Consider first the effects on child labour. Since child labour force participation falls as adult incomes increase, trade liberalisation should *reduce* child labour through the positive effects of free trade on per capita income. Increased trade carries with it a potential countervailing effect on child labour force participation, however. For a given level of family income, the relative return to current work versus schooling, summarised by the rate of return to schooling, will influence the extent of child labour. If reducing trade barriers raises the wage of unskilled work and reduces the return to schooling, the relative attractiveness of schooling to children and their families falls. (On the other hand, if trade expansion includes technology transfers that raise returns to schooling, incentives for children to attend and remain in school increase.)

Applying fixed effects analysis to country panel data for the period from 1980 to 1995, an earlier study found that both the adoption of free trade policies and increased trade shares were associated with lower child labour force participation rates after controlling for per capita GDP and institutional structure (Flanagan, 2006). Greater openness to international markets therefore reduces child labour in two ways. To the extent that trade raises per capita income, fewer families need to rely on child labour to obtain the necessities of life. Greater openness is also directly associated with lower child labour rates in addition to its indirect effect through income. We do not know the exact explanation for the direct effect, but the possibility that trade raises returns to schooling is one candidate. At the least, the finding of a significant direct effect undermines the hypothesis that free trade reduces the return to schooling for children and other low-skill workers.

This finding supports an important policy implication: using trade sanctions to induce countries to reduce child labour is counterproductive. Free trade reduces child labour; restrictions on trade will increase it by reducing the income that permits families to move their children from work to school and possibly by reducing returns to schooling. Policies that expand rather than reduce the choices available to families provide a more effective approach to reducing child labour.

In theory the linkage between trade and workers' freedom of association rights is ambiguous. An underlying question is how free trade influences the relative bargaining power of labour and management. On the one hand, a larger number of export firms or multinational companies are likely to reduce any employer monopsony power, thereby increasing workers' choice of employers and hence their bargaining power. On the other, competition from imports and the increased ability of local employers to outsource may reduce workers' bargaining power. In short, the net effect of open trade policies on bargaining power must be settled empirically. Using cross-section instrumental variables and fixed-effects analyses, a study of late 20th century experience found that countries with more open trade policies had superior civil liberties, and civil liberties improved more rapidly in countries that adopted open trade policies, *ceteris paribus*. There was no significant relationship between civil liberties and trade volumes, however (Flanagan, 2006, Chapter 4).

The leading theory of labour market discrimination predicts that increased competition to hire labour should erode discrimination by providing labour force minorities with additional

employment opportunities with employers who have less discriminatory tastes (Becker, 1957). To the extent that open trade policies increase the number of export firms and/or multinational companies competing for labour in local labour markets, employer discrimination may decrease. By providing opportunities beyond agriculture and the informal sector, globalisation also may increase the status and security that comes with higher income. Yet an earlier cross-section study found in both ordinary least squares and instrumental variables estimates significantly *larger* male-female wage differences in countries with open trade policies, *ceteris paribus*. (On the other hand, there was no statistically significant relationship with trade volumes.) The evidence from the very few other investigations of the issue is likewise mixed (Black and Brainerd, 2004; Berik *et al.*, 2003).

Finally, open economies appeared to have neither more nor less forced labour than closed economies after controlling for level of development, institutional structure, and for the possibility of reverse causation. Openness reduces forced labour indirectly by increasing per capita income.

Trade and labour conditions in the 21st century

The debate over the effect of international economic integration on labour conditions has continued into the 21st century, with particular interest in conditions in Asian countries. Both economic growth and trade expansion proceeded apace until the end of the century's first decade. Between 1995 and 2008, the average growth of (PPP adjusted) per capita GDP was similar – about 5.5% – for both Asian and non-Asian countries. When weighted by labour force size, however, growth was more rapid in Asian countries (8.7%) than in non-Asian countries (4.8%), reflecting in part the rapid growth in the PRC and India. These regional differences alone imply more rapid advancement of labour conditions in Asian than in the rest of the world during this period. Over the same period, the trade share of GDP grew much more rapidly in Asian countries. Within each set of countries, the growth in the trade share was more rapid in smaller countries.

We now turn to our regression analyses of links between trade and labour conditions, using a database of 58 countries at varying stages of development. We estimate the following cross-country regression model for each labour condition in 2005.[8]

$$LABOR\ CONDITION_i = a_0 + a_1\ lnGDPCAP_i + a_2\ TRADE_i + a_3\ ASIA + e_i \quad (1)$$

The independent variables in equation (1) are the natural logarithm of (PPP adjusted) per capita GDP, the TRADE share of GDP in each country i,[9] and a dummy variable for Asian nations. Although we are interested in how trade influences labour conditions, one must also consider the possibility a country's labour conditions influence its volume of trade as alleged by some critics of globalisation. With this ambiguity in mind, we provide instrumental variables estimates of the effect of trade on labour conditions.[10] When the coefficient, a_2, lacks statistical significance, trade has solely an indirect effect on the labour condition through its (unobserved)

8. Unreported cross-country estimates for years 2000 and 2008 produced similar qualitative results.

9. The multi-hurdle index of open vs. closed trade policies developed by Sachs and Warner (1995) is not available for the 21st century. In some regressions we used the index of global flows pictured in Figure 9.1 instead of TRADE, but this experiment produced no material change in the results.

10. The variables used to instrument the trade share variable – suggested by gravity models of trade – are dummy variables for small countries, island countries, and landlocked countries and the land to labour ratio.

effect on per capita GDP. Where a_2 is statistically significant, greater international economic integration has both direct (a_2) and indirect effects on the labour condition. Table 9.4 provides the coefficient estimates and robust standard errors, weighted by each country's labour force size.

Table 9.4. Trade and labour conditions, 2005

	ln Per capita GDP	Trade share of GDP	Asia	R^2	Countries
Working Conditions					
Hourly Pay (ln)	1.36	-0.00015	0.08	0.94	48
	(.11)*	(0.0035)	(0.26)		
Annual Work Hours	-152.05	0.85	-13.96	0.51	55
	(57.44)*	(-1.29)	(107.23)		
Labour Rights					
Civil Liberties	-0.46	-0.01	1.94	0.40	56
	(-0.63)	(0.02)	(1.28)		

Note: Instrumental variables estimates; labour force weights; robust standard errors.* p-value < .01 ** p-value < .05

The estimates first confirm the powerful effect of per capita GDP growth in improving both working conditions, and by implication, the costs of recessions in slowing or reversing such improvements. The GDP influence is not significant in the civil liberties regression, a result that changes in the unweighted regressions discussed in the next paragraph. These estimates also indicate that the trade expansion of the early 21st century had only indirect effects (i.e. via increased per capita GDP) on labour conditions. The fact that estimates of a_2, the direct effect of trade, are not statistically significant indicates that the net effect of the trade expansion on labour conditions is positive and results from the GDP-enhancing effects of increasing trade. Neither the direct nor the indirect effects of trade diminish labour conditions. The results for the ASIA dummy variable are uniformly not significant: After adjusting for international differences in per capita GDP and trade shares, labour conditions were no different in Asia and the rest of the world midway through the first decade of the 21st century.

We encountered two notable differences when we recomputed the regressions without labour force weights. First, the coefficient on *ASIA* was significantly positive in both the hours and civil liberties regressions. *Ceteris paribus*, Asian countries had longer work hours and fewer civil liberties, but only when each country's data were equally weighted. Second, higher trade shares were associated with lower pay. Apparently, these (unreported) results are concentrated in smaller Asian countries.

We also conducted random effects panel data analyses of the relationship between trade, per capita GDP and national labour conditions for the period from 1995 to 2008. In these analyses we alternately used the trade share of GDP and the index of global flows reported earlier in Figure 9.1 to measure globalisation. This work was challenged by the fact that we lacked convincing instruments for variations in these measures over time. To mitigate concerns about the direction of causality between trade and labour conditions, we lagged the globalisation measures. We also experimented with alternative functional forms.[11] Our panel analyses confirmed the importance of per capita income in improving labour conditions, but yielded no statistically significant findings of influence from the lagged trade or lagged globalisation

11. Weighted estimation was not available for random effects analysis.

indices. There was another parallel with the cross-section analysis: after controlling for the influence of per capita GDP and trade or global flows, the Asia region had systematically higher work hours, fewer civil liberties, and lower pay. These regional findings parallel the descriptive data reported in Section 9.2. The additional contribution of the regression analyses is to show that when each country's observations receive equal weight, regional differences in growth and trade do not fully account for the regional differences in labour conditions.

Labour conditions in Asian export processing zones

Export processing zones (EPZs) have grown tremendously over the past three decades. In 1975, only 25 countries in world had established EPZs but by 2006, 130 countries had done so, with the total numbers of EPZs increasing from 79 to approximately 3 500 globally. In particular, EPZs played a prominent role in the expansion of exports and export-led growth of developing Asia. In 2006, out of the 66 million workers estimated to work in these zones globally, roughly two thirds could be found in the PRC alone (Boyenge, 2007).

While many studies on EPZs exist, it is only relatively recently that an attempt was made by the ILO to create an international database on EPZs. This ILO Database on Export Processing Zones compiled various reports on EPZs into a comprehensive global database containing country-level data on employment, investment, and exports of EPZs and provides a useful baseline to examine the patterns of growth of these EPZs (Boyenge, 2007).

An analysis of the data shows that despite the seemingly small share of total employment accounted for by the EPZs, the zones produced a disproportionately larger share of exports. In many Asian countries, less than 10% of workers work in the EPZs, yet the share of EPZ in total exports are often multiple times the percentage of the workers. In mid 2000s, EPZs were estimated to produce the majority of exports in Bangladesh, Malaysia, Pakistan, Philippines and Viet Nam (Table 9.5). In addition, EPZs are often an important source of employment for women: in Bangladesh, Korea, Philippines and Sri Lanka, more than two thirds of the workers in the zones are women.

In the early days of the development of EPZs, there was much concern about the labour conditions in these zones given the prevalence of low-wage assembly work. Earlier research had highlighted lower average wages in EPZ than the average wages of the larger host economy. Indeed, even in Korea, wages in the zones were found to be lower than that outside as late as the mid-80s (Oh, 1993). However, the active labour movement in Korea during the same time period had pushed EPZ wages to double-digit growth, eventually lifting average EPZ wages above that outside. This reversal occurred also in Malaysia by the late 1980s, although the relative differences between EPZ and non-EPZ wages varied across sectors (Kusago and Tzannatos, 1998).[12]

Nonetheless, the literature suggests that by the late 20th century, overall average wages in many EPZs has caught up or even surpassed those offered outsize the zones. Once workers' characteristics are accounted for and opportunity costs of EPZ labour were considered, the wages in the EPZ do not appear to be systematically lower than outside (Robertson *et al.*, 2009). This growth in EPZ wages is also accompanied by relatively similar working conditions compared to similar factories outside the zones. In cases where basic pays were similar, workers in EPZs often received other incentives and overtime resulting in higher take home pay. This premium could be substantial. For example, on average Bangladeshi EPZ workers were paid

12. For example, Malaysian EPZ wages in textiles and electronics were higher than outside, but workers in food, beverage, tobacco and plastic products received lower wages than those not working in EPZs.

15% to 50% higher than their counterparts outside (ILO, 1998). The EPZ premium in Bangladesh varies by skill, with skilled workers earning more than double, and those who were helpers and apprentices earning lower pay than outside the zones (Figure 9.3). Some local EPZ firms in the PRC reported wages two or three times more than those paid by local non-EPZ firms (Perman *et al.*, 2005). Geography and technological sophistication seems to play a role, since those working in the Pudong New Area received much higher wages than workers outside the EPZ (Figure 9.3). Of course, individual experiences vary across sectors and countries, and the right to organise remains restricted in EPZs in many countries.

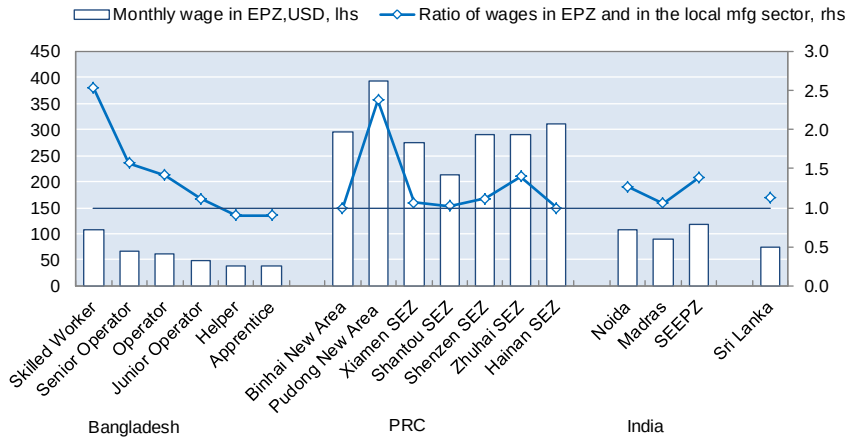
Table 9.5. EPZs in selected Asian economies

	No. of EPZs	No. of other types of econ zones	EPZ employment, % of total employment (2005-2006)	% Female	Investment (USD bln)	No. of firms	EPZ exports as % of total exports (1)
Bangladesh	8	5 341	7.26	85	1 035	252	75.6
Cambodia	3	..	0.25	..	..	..	..
PRC	15	149	5.28	..	17 030	43 360	*19.0*
Hong-Kong (China)	..	..	10.07	..	29 600	3 845	*34.7*
India	..	8	0.38	32	7 960	811	*4.9*
Indonesia	..	..	6.39	..	11 310	1 149	*21.5*
Japan	..	2	0.31	..	964 744	77	42.7
Korea, Rep. of	..	3	0.17	70	11 560	..	*10.8*
Macao (China)	..	..	55.16	..	5 378	3 100	80.0
Malaysia	13	200	4.89	54	5 512	3 000	83.0
Maldives	..	1	18.49	..	..	..	47.7
Mongolia	..	13	..	..	..	..	..
Nepal	1	..	..	..	..	..	..
Pakistan	22	4	2.07	..	3 873	300	*50.3*
Philippines	45	33	3.49	74	1 270	1 179	60.0
Singapore	7	35	..	..	6 400	7 000	..
Sri Lanka	12	4	5.46	78	287	223	38.0
Taipei, China	5	..	0.68	..	0	354	*12.4*
Thailand	10	22	1.14	..	1 442	1 357	*7.5*
Viet Nam	10	181	2.23	45	1 067	234	80-100

1-EPZ export shares for Bangladesh, Japan, Macao, Malaysia, Maldives, Philippines, Sri Lanka and Viet Nam are compiled by Boyenge (2007). The others are imputed by the authors using zone exports reported in Boyenge (2007) and merchandise exports reported by UNCTAD. For PRC, Boyenge (2007) reported an EPZ export ratio of 593.3, but the ratio of exports to official merchandise exports was 19.04 %; the authors find the latter estimate more plausible.

Sources: Boyenge (2007); UNCTAD (exports); data for Taipei, China's exports come from *www.cepd.gov.tw/encontent/*.

Figure 9.3. Wages in EPZs



Sources: ILO, CEIC, *cressence.org*, *understandchina.com*, *www.icrier.org*, *www.bbc.co.uk*, *www.wsws.org*, Aggarwal Aradhna (2007), Wage Board for Garments and Manufacturing Trade (Sri Lanka), respective central banks (exchange rates).

9.4. Foreign investment and labour conditions

With the relaxation of many capital controls, a significant increase in investment flows between countries accompanied the late 20th century globalisation. As with international trade, much of the growth regained ground lost during the retreat from the late 19th century globalisation. A parallel growth of multinational companies (MNCs) accompanied the resurgence of foreign direct investment.

These developments raise two sets of questions about the relationship between foreign investment and labour conditions. First, do labour conditions influence FDI inflows? Do cheap labour, poor labour conditions and weak support of labour rights attract FDI? And if labour conditions influence FDI flows, how important is their influence relative to other influences, such as market size and investment risks? These issues are addressed in an econometric analysis of the determinants of FDI flows.

Second, irrespective of what attracts FDI to a host country, how do the human resource management policies of MNCs influence host country labour conditions? In particular, do MNCs degrade labour conditions in host countries? This question is best addressed by micro studies comparing the working conditions at MNCs with comparable host-country firms. The rest of this section examines evidence on each of these issues.

Labour conditions and FDI flows

The 19th century globalisation included significant international capital flows, but most FDI flowed from capital-rich European countries to less-developed countries, where capital was scarce and its marginal value was accordingly high. Following the interwar retreat from global economic activity, international capital flows regained their earlier peaks during the 1990s, but with a distinctive change in the destination of investments. Most capital no longer flows toward the least developed nations where capital is scarce. Capital-poor developing countries received less than a quarter of world FDI flows during the late 20th century (Table 9.6). Instead, "capital transactions seem to be mostly a rich-rich affair, a process of 'diversification finance' rather than 'development finance' (Obstfeld and Taylor, 2003, p.175). Only in the early 21st century did the share flowing to developing countries begin to increase, although it had reached only a

third of FDI inflows by the end of the century's first decade. The entire continent of Africa received less than 4% of world inflows in 2007-09 – little different from the 1990s. While the volume of FDI received by Asian countries increased throughout the period, their *share* of FDI inflows changed little over the past 20 years and their share of the flows to developing countries declined (Table 9.6).

Table 9.6. Foreign direct investment inflows, 1990-2009

Share of World FDI Inflows, percentages

	1990-92	1999-2001	2007-09
World	100.0	100.0	100.0
Developed countries	75.3	78.1	60.7
Developing countries	24.3	21.1	33.6
East Asia	6.3	8.2	9.9
South Asia	0.3	0.5	2.5
South-East Asia	7.4	2.2	3.2

Source: UNCTAD, World Investment Report 2010, Annex Table 1.

Even this snapshot of FDI flows undermines the notion that countries with inferior labour conditions attract international investment flows. With most FDI now flowing between industrialised nations, which offer superior labour conditions, efforts to find cheap labour and weak labour standards cannot be the primary factor motivating the international distribution of FDI.

We have explored this implication more formally in a panel data analysis of the distribution of world FDI inflow shares across countries between 2003 and 2009, a time period governed by the availability of some key variables (*X)*. Our strategy is to estimate a baseline model and then to see if the explanatory power of the model improves with the addition of measures of labour conditions (*Z*). We also include geographical dummy variables (*GEO*) to test for the effects of being in Asia and in the PRC.

$$FDI\ Share_i = \alpha + \beta_j \sum_j^J X_{ji} + \gamma_k \sum_k^K Z_{ki} + \delta_l \sum_l^L GEO_{li} + \varepsilon_i \qquad (2)$$

The baseline analysis of equation (2) assumes that investors seek to maximise their expected return and tests the hypotheses that these returns depend on market size, investment risks, the availability of complementary inputs, and a country's openness to international trade. In measuring market size, we capture both the number of potential consumers (Population) and their income (Per capita GDP).

Our preferred measure of investment risk is a Euro money country credit-worthiness scale reported in the *World Competitiveness Yearbook* (*WCY*). Higher scale values imply lower risk and hence higher FDI shares. We also tested for the influence of several institutional and regulatory factors that might influence the costs of doing business in a country. The ratio of government consumption expenditure to GDP is frequently used in growth studies as a proxy for the degree of government intervention in the economy, but this variable was not statistically significant in our analyses. Other variables were based on *WCY* survey responses of business executives' perceptions of the regulatory environment, personal security, the protection of property, and bribery and corruption. As discussed below, two of these measures – survey responses to the statements "Bribing and corruption do not exist" (Bribe) and "Labor regulations do not hinder business activities" (Labor Regulation) – were significantly related to

a country's share of world FDI inflows in some regressions. Each of these variables is measured on a 0 to 10 scale with higher values indicating stronger agreement with the statements.

The regressions also tested for complementary between FDI and land (the area of a country in millions of square kilometers) and with the skill of the labour force. Skill is measured variously by the percent of the population achieving at least tertiary education, executive survey responses indicating whether "skilled labour is readily available," and (inversely) by the percent of the population over 15 years old that is illiterate. The trade share of GDP (lagged one year) tests for the effects of international economic integration on a country's FDI inflow share.

The analysis finds that countries with large markets, low investment risks, and a large trade share of GDP attract larger shares of FDI inflows (Table 9.7, regression 1). FDI and land appear to be complements. We found no significant correlation between any of the measures of labour skill and FDI inflow shares and we have dropped skill measures from the analysis. At least in the early 21st century, there was no evidence that FDI was attracted to countries with abundant unskilled labour, *ceteris paribus*. The result also does not provide a general confirmation for the notion that when trade and FDI transfer skill-intensive technologies developed in industrialised countries, the demand for and returns to skilled labour in developing countries increase. [Recent studies of Brazil and Mexico have found such effects (Arbache, Dickerson and Green, 2004).] The overall regression fit is good, with the model accounting for more than 60% of the variance in FDI inflow shares among 55 countries between 2003 and 2009. [13]

The baseline model highlights factors that would tend to reduce FDI shares in Asian countries and factors that would tend to raise them. Relative to the rest of the world, Asian countries on average have lower GDP, higher investment risks, and more concerns about bribery. On the other hand, average population size and trade share are larger in Asia. Nonetheless, the baseline model does not capture all the factors producing relatively lower FDI inflow shares in Asia. When a dummy variable for Asian countries is added to the baseline regression model, the result is significantly negative and the statistical properties of the regression improve (Table 9.7, regression 2). Even after holding the effects of the independent variables constant, the Asian region receives a comparatively smaller share of world FDI inflows.

We made a preliminary assessment of the effect of national labour regulations on FDI by adding the Labor Regulation variable to the baseline specification (Table 9.7, regression 3). The coefficient was significantly positive, meaning that countries in which business executives believe that labour regulations do not hinder economic activity receive a larger share of world FDI, other influences equal. Unlike other measures of labour regulation by country, this variable is available for several years, but it provides no indication of which labour regulations concern potential foreign investors the most. We also tested for the influence of a country's labour conditions on FDI by adding measures of working conditions and labour rights to the baseline econometric model. In these regressions, high FDI shares are not significantly correlated with poor labour conditions – low pay, long work hours, and limited freedom of association rights.

13. Initial results from ordinary least squares regression suggest patterns of significance similar to that obtained from these panel procedures with random effects.

Table 9.7. FDI share regressions, 2003-2009

	1	2	3	4	5	6
Per capita GDP	.367	.348	.326	0.374	0.351	0.351
	(.227)	(.208)*	(.191)*	(0.234)	(1.89)*	(0.231)
Population	.630	.786	.841	0.625	0.835	0.637
	(.081)***	(.070)***	(.068)***	(0.083)***	(0.069)***	(0.085)***
Investment Risk	.021	.019	.020	0.021	0.019	0.022
	(.010)**	(.009)**	(.009)**	(0.101)**	(0.009)**	(0.009)**
Bribe	.076	.106	.084	0.076	0.086	0.063
	(.046)*	(.046)**	(.044)*	(0.046)	(0.044)*	(0.047)
Area	.00006	.00004	.00002	0.0005	0.00001	0.00005
	(.00002)***	(.00002)**	(.00002)	(0.0002)***	(.00002)	(0.00002)**
Trade share (lagged)	.376	.565	.569	0.371	0.564	0.359
	(.137)***	(.153)***	(.153)***	(0.137)***	(.153)***	(0.137)***
Labour Regulation			.105		0.102	0.049
			(.055)*		(0.056)*	(0.057)
Asia		-.834	-1.020		-1.044	
		(.266)***	(.260)***		(0.261)***	
PRC				0.225	0.514	0.119
				(0.303)	(0.233)	(0.326)
R^2	.609	.660	.674	0.609	0.677	0.609
Observations	350	350	350	350	350	350
Countries	55	55	55	55	55	55

Note: Random effects estimation. Robust standard errors in parentheses. See text and Appendix 9.A1 for variable definitions. ***p-value <.01 **p-value <.05 *p-value <.10.

In the recent years, the rise of the PRC as a major exporter and major FDI destination also brings up the question whether the "Chinese effect" would alter the previous findings on the patterns of FDI shares. However, additional robustness checks (Table 9.7, regressions 4-6) indicate that this is not the case. The coefficient on the PRC dummy variable is not significant across any of the regressions once other characteristics of the country are accounted for. In other words, the empirical results suggest that FDI inflows to the PRC not because the PRC is a special case, but rather due a combination of the size of its population, openness, and other characteristics.

The evidence on patterns and determinants of FDI inflows has a bearing on two views of why companies locate production abroad in the first place. One view holds that foreign investment is attractive when it offers specific location advantages, such as mineral deposits or cheap labour. This view apparently underlies assertions that poor labour conditions attract foreign investment. An alternative view holds that multinational companies transfer important productive inputs that host countries lack – unique technology, managerial skills, and superior knowledge of organisational design and production methods (Hymer, 1960; Caves, 1996;

Markusen, 2002). MNCs need such firm-specific "knowledge capital" if they are to overcome their lack of familiarity with local regulations, marketing practices, human resource management policies and other aspects of management that are sensitive to differences in local cultures. Under the knowledge-capital view, the possession of firm-specific assets that can profitably be combined with local inputs in host countries drives foreign investment – not an effort to exploit local inputs.

The fact that neither broad patterns of FDI inflows nor statistical analyses of the determinants of those inflows reveal evidence of significant links between foreign investment and labour conditions supports the "knowledge capital" hypothesis over the "location advantage" hypothesis of investment motivation. The difference in these views is also important for understanding the impact of MNCs on host-country labour conditions – the topic of the next section. Combining such firm-specific assets with local inputs should raise, not lower, the productivity of host-country affiliates. In short, the knowledge capital scenario explains why MNCs might offer higher wages than their host-country competitors.

Why are the results of the analysis of FDI inflows so inconsistent with the location-advantage hypothesis? Poor labour conditions signal low productivity as well as low wages, and not all investments thrive in a low-productivity environment. Moreover, countries with poor labour conditions tend to be countries in which direct risks to investment are high. Risks of expropriation and repudiation of contracts are highest in countries with few civil liberties, for example. These risks effectively counter whatever advantages cheap labour might provide.

Multinational companies and labour conditions

The impact of a multinational company on working conditions in a host country depends on the extent to which it must compete with other MNCs or host country firms for its workers and on the local elasticity of labour supply. If multinationals establish inferior conditions in newly-constructed plants, they will face recruiting and retention difficulties when competing with other firms for labour. If they instead acquire local companies and try to worsen working conditions, they will encounter increased quit rates as workers leave to join host country firms offering superior conditions.

Whether the arrival of MNCs can improve working conditions depends on labour supply conditions in the host country and the human resource management policies of the firm. In markets with a limitless supply of labour available at the current wage, increased labour demand from MNCs or host country firms will raise employment, but not wages. When workers require inducements to overcome the costs of changing employers, however, labour supply is less elastic, and increases in labour demand from MNCs will raise both wages and employment. When firms compete for labour, the effect of increased demand on wages depends on what workers are willing to accept – not on what firms may wish to pay.

If MNCs do not compete with other firms for labour services, they may force labour conditions below competitive levels. Firms in isolated locations, such as some mining districts, may have such "monopsony" power, but situations in which labour has no choice of employers seem too rare to accept monopsony as a general phenomenon. Indeed, by *adding* to the number of employers in a labour market, the arrival of MNCs should improve labour conditions by reducing monopsony power in host-country labour markets.

The conclusions of the research community on the impact of MNCs on wages are nicely summarised in the following statement: "It seems to be a universal rule that, in every country, foreign owned firms and plants pay higher wages, on average, than domestically owned ones.

That is true not only in developing countries, but also in high income countries, such as Canada, the United States and the United Kingdom." (Lipsey and Sjoholm, 2001). The persistence of higher pay in MNCs implies that labour productivity in foreign affiliates must systematically exceed productivity in host-country firms. Comparisons of value added per employee confirm this implication. According to United Nations data for the mid-1990s, foreign-affiliate productivity exceeded domestic firm productivity by 37% (Hong Kong), 65% (Malaysia), 137% (PRC) and 373% (Taipei, China). Significant but smaller productivity premia for foreign affiliates were recorded in most major European and North American countries (UNCTAD, 2002, Annex Table A.1.5).

Table 9.8. Ratio of compensation in MNEs and local manufacturing

	2000(a)		2008(b)		Average annual % change
Bangladesh	21.29		19.28		-1.2
Brunei	8.48	a	15.23		11.4
China	7.24		3.10		-7.1
Hong Kong, China	2.24		2.27	b	0.2
India	11.63		11.43	b	-0.2
Indonesia	20.58		13.56		-4.3
Japan (1)	1.36		1.14		-2.0
Korea (1)	2.01		1.73		-1.7
Malaysia	2.66	a	2.29		-3.5
New Zealand (1)	1.24		1.08		-1.6
Philippines (1)	4.99		3.22		-4.4
Singapore (1)	1.46		1.27		-1.6
Sri Lanka	21.25		11.39		-5.8
Taipei, China (1)	1.73		1.69		-0.2
Thailand	4.02		4.05		0.1
Viet Nam	3.62		6.87		11.2

Note: MNE wage def: Average monthly compensation per worker paid by the foreign affiliates of the US MNEs per year 1-Manufacturing wage data - Average direct pay per employee (BLS); or the other countries - data were obtained from ILO-Laborsta or CEIC.

a) 2000 data: Brunei-2001, Malaysia-2004.

b) 2008 data: Hong Kong-2007, India-2007.

Sources: BEA, BLS, ILO and CEIC

Some of the superior productivity and pay of foreign affiliates reflects differences in industry, firm size, and use of skilled labour. Nevertheless, many studies find that foreign-affiliate pay premia (on the order of 3% to 5%) remain after controlling for differences in the characteristics of these MNCs and host-country firms. The premia themselves may reflect the tendency of MNCs to provide more specific training than host-country firms and other unobserved workforce or management quality differences between foreign and domestic firms.

9.5. Concluding comments

During the late 20th and early 21st century, a broad improvement in working conditions and labour rights around the world accompanied a significant expansion of international trade and investment. Some of the improvement would have occurred anyway to the extent that countries advanced their per capita income without the larger trade flows. But to the extent that trade itself raises per capita income, it advances both working conditions and labour rights. In this

sense, the improvements in labour conditions during the post-war globalisation are consistent with the general predictions of international trade theories. Moreover, we do not find evidence that countries with poor labour conditions acquire larger trade shares, *ceteris paribus*.

Our analyses do not reveal evidence that countries with poor labour conditions attract disproportionate shares of FDI. Market size and investment risk are the dominant influences on FDI. After accounting for their influence, actual labour conditions play a negligible role in the destination of FDI inflows. Perceptions of the constraints imposed by national labour regulations can influence a country's FDI share, however. Our review of the growing literature on the impact of multinational companies on host-country labour markets finds no evidence that multinationals depress wages. Instead, the evidence seems consistent with the "knowledge capital hypothesis" that foreign firms bring firm-specific technical and managerial advantages that produce the higher productivity that supports higher wages.

Finally, we note that international trade and investment flows represent only two of the globalisation mechanisms influencing labour conditions and international inequality. This paper has not discussed the historically important role of international labour markets in altering global working conditions. Economic historians have found convincing evidence that most of the transatlantic convergence in real wages during the first wave of globalisation was attributable to migration flows rather than trade flows (Hatton and Williamson, 1998, 2008; O'Rourke and Williamson, 1999).

Concerns about the consequences of migration for the wages of (some) native workers ultimately led major destination countries to adopt significant immigration restrictions, some of which have now been in place for over a century. Meanwhile, incentives to move from poorer to richer countries remain at least as large as they were during the first wave of globalisation. Limiting the role of international labour markets slows the improvement of working conditions and some labour rights in developing countries. International migration can raise the wage incomes of both migrants and the nonmigrants who remain behind. Immigration barriers also slow the advance of key human rights. By thwarting a mechanism for raising family incomes, immigration restrictions slow the decline of child labour in developing countries. By limiting the range of global employment choices, the barriers also make it difficult for individuals or groups to escape the effects of domestic discrimination. The forced labour associated with trafficking in human beings is also directly traceable to barriers to legal migration across national boundaries.

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Appendix 9.A1.

Sources and concepts

This paper considers three dimensions of working conditions—pay, hours of work, and job safety – and four dimensions of labour rights – child labour, employment discrimination, freedom of association, and forced labour. For the data sources for analyses of the late 20th century, see Flanagan (2006, Appendix A). Analyses for the first decade of the 21st century use the data base in IMD, *World Competitiveness Yearbook*, downloaded from the IMD website. This database includes data acquired from international organisations and national governments as well as special survey data acquired by IMD from cooperating research institutes around the world. Annex IV of the *World Competitiveness Yearbook* provides a complete guide to all sources. To this database we added variables provide by the International Labour Organization (ILO). This Appendix notes conceptual differences in data for the late 20th and early 21st century.

We use the *annual* compensation per worker in manufacturing to measure pay in the late 20th century (UNIDO, 2002). This measure includes direct wages plus contributions by employers to social security programs. For the early 21st century, pay consists of *hourly* earnings per worker in manufacturing. Three measures of work hours are analysed in the late 20th century: The proportion of employees who usually work more than 40 hours a week; weekly hours of work in manufacturing; and annual work hours for all employees. The early 21st century analysis uses the last measure.

Efforts to measure job safety for a broad sample of countries encounter significant barriers. In contrast to data on pay and work hours, there is no general measure of job safety available for a large sample of countries. This paper uses the rate of *fatal* on-the-job injuries per 100 000 employees, available from the ILO. (Data on nonfatal accidents are even scarcer.) Among countries that publish industrial accident data, reporting practices vary widely. Data may variously be acquired from establishment surveys, the records of labour inspectors, insurance records, or other administrative sources. Some countries count reported injuries, while others report only compensated injuries. We have adjusted the ILO data to a common base (100 000 employees), but the remaining variation in reporting practices indicate that changes over time within a country are likely to be more informative than cross-country comparisons.

Thanks largely to the efforts of social scientists, indicators of labour rights now exist for a substantial cross-section of countries, but measures pertinent for only two of the four core labour rights – workplace freedom of association and child labour – are available for multiple years. Most of our analyses of freedom of association rights use a broad measure of civil liberties developed by Freedom House (*www.freedomhouse.org/*). The Freedom House index evaluates actual national practices rather than constitutional guarantees and ranges from 1 to 7 with the *lowest* scores indicating the strongest liberties. A recent study (Freedom House, 2010) permits an evaluation of how well the general civil liberties index captures workers' freedom of association. For 2010 only, Freedom House developed a five-point measure of worker rights for each country, with the *highest* scores indicating the strongest rights. The cross-country correlation between that index and the general civil liberty index in 2010 is -.91 (where the negative sign reflects the different scaling of the two measures). For the mid-1990s only, there

is an index of workplace freedom of association and collective bargaining rights (Kucera, 2002). The index reflects an evaluation and weighting of 37 potential interferences with rights to form and operate unions, bargain collectively, and strike. The index ranges from 0 to 10, with low numbers reflecting superior workplace freedom of association rights.

Of the four core labour rights, nondiscrimination in employment is the most controversial to measure. Differences in worker qualifications account for some group differences in outcomes, but not all qualifications can necessarily be observed or measured. Some imprecision in purported measurements of discrimination always remains. We measure labour market discrimination as the percentage difference between male and female wages that remains *after* adjustments for gender differences in schooling, experience, and other performance-related variables. The focus on gender provides a benchmark for discrimination that is widely available. The data come from a meta-analysis of 263 published papers offering 788 estimates of gender pay differentials in various years from the 1960s through the 1990s in 63 countries (Weichselbaumer and Winter-Ebner, 2003). The meta-analysis generated estimates of *net* gender wage differences for each of the countries, after controlling for year and characteristics of the study. The estimated country effects constitute the measures of discrimination used in this study. Only one observation per country is available—dated here as 1985, about the middle of the period covered by the studies in the meta-analysis.

We rely on two approaches adopted by other social scientists to measuring the prevalence of forced labour. The first approach estimates the number of forced labourers. One study estimates 27 million forced labourers worldwide in the late 1990s and provides tentative country-by-country estimates with many caveats (Bales, 2000, 2004a, 2004b). We use the mid-point of his published range for each country. (Later, the ILO published a much lower estimate of 12.3 million victims of forced labour worldwide based on double-sampling of reports between 1995 and 2004 (ILO, 2005). The ILO report stated reasons why this figure might be an underestimate. The ILO did not report estimates by country, so their approach could not be incorporated in our analyses.) The second approach counts the *varieties* of forced labour found in a country, as indicated in qualitative reports by the US Department of State and human rights organisations. Ranging from 0 to 8, this variable is available only for the late 1990s (Busse and Braun, 2003).