



International
Labour
Office
Geneva

**Employment Sector
Employment Working Paper No. 120**

2012

**Regional Trade Agreements and
domestic labour market regulation**

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Trade and
Employment
Programme

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First published 2012

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ILO Cataloguing in Publication Data

Häberli, Christian; Jansen, Marion; Monteiro, José Antonio

Regional trade agreements and domestic labour market regulation / Christian Häberli, Marion Jansen, José-Antonio Monteiro ; International Labour Office, Employment Sector, Trade and Employment Programme. - Geneva: ILO, 2012

1 v. (Employment working paper) ; No.120)

International Labour Office; Employment Sector

labour market / labour policy / trade agreement / role of ILO / role of WTO / Asia / EU countries / Pacific / USA

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Printed by the International Labour Office, Geneva, Switzerland

Preface

The primary goal of the ILO is to contribute, with member States, to achieve full and productive employment and decent work for all, including women and young people, a goal embedded in the ILO Declaration 2008 on *Social Justice for a Fair Globalization*¹, and which has now been widely adopted by the international community.

In order to support member States and the social partners to reach the goal, the ILO pursues a Decent Work Agenda which comprises four interrelated areas: Respect for fundamental worker's rights and international labour standards, employment promotion, social protection and social dialogue. Explanations of this integrated approach and related challenges are contained in a number of key documents: in those explaining and elaborating the concept of decent work², in the Employment Policy Convention, 1964 (No. 122), and in the Global Employment Agenda.

The Global Employment Agenda was developed by the ILO through tripartite consensus of its Governing Body's Employment and Social Policy Committee. Since its adoption in 2003 it has been further articulated and made more operational and today it constitutes the basic framework through which the ILO pursues the objective of placing employment at the centre of economic and social policies³.

The Employment Sector is fully engaged in the implementation of the Global Employment Agenda, and is doing so through a large range of technical support and capacity building activities, advisory services and policy research. As part of its research and publications programme, the Employment Sector promotes knowledge-generation around key policy issues and topics conforming to the core elements of the Global Employment Agenda and the Decent Work Agenda. The Sector's publications consist of books, monographs, working papers, employment reports and policy briefs⁴.

The Employment Working Papers series is designed to disseminate the main findings of research initiatives undertaken by the various departments and programmes of the Sector. The working papers are intended to encourage exchange of ideas and to stimulate debate. The views expressed are the responsibility of the author(s) and do not necessarily represent those of the ILO.

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¹ See http://www.ilo.org/public/english/bureau/dgo/download/dg_announce_en.pdf

² See the successive Reports of the Director-General to the International Labour Conference: *Decent work* (1999); *Reducing the decent work deficit: A global challenge* (2001); *Working out of poverty* (2003).

³ See <http://www.ilo.org/gea>. And in particular: *Implementing the Global Employment Agenda: Employment strategies in support of decent work*, "Vision" document, ILO, 2006.

⁴ See <http://www.ilo.org/employment>.

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Abstract

In this paper we discuss the relationship between labour market regulation and regional trade agreements from both a legal and an economic angle. We examine empirically whether regional trade liberalisation is associated with deterioration (“race to the bottom”) of domestic labour standards beyond those reflected in the 1998 ILO Declaration on the Fundamental Principles and Rights at Work. Using a panel of 90 developed and developing countries, covering the years from 1980 to 2005, we find that after the entry into force of a regional trade agreement (RTA), labour standards applying to employment protection and unemployment benefits are significantly weakened. We show that such a lowering of protection levels tends to occur in high income countries and that this effect mainly stems from RTAs among such countries rather than with low or middle income countries.

Concern about competitive pressure to weaken domestic labour regulation is reflected in a variety of undertakings in RTAs not to administer labour laws with a view to improving one’s competitive position in trade or foreign direct investment (FDI). The above-mentioned empirical findings indicate that such provisions could potentially become relevant, and that this is more likely to be the case for high income members of RTAs. Our analysis, from a legal point of view, of relevant institutional and procedural mechanisms indicates however that enforceability of the relevant provisions is weak for most of the existing legal texts.

Keywords: International trade, labour standards, labour market, regulation, regional trade agreements, ILO, WTO

Acknowledgements

We thank Froukje Boelen, Sandrine Cazes, Franz Ebert, Petros Mavroidis, Roberta Piermartini, Robert Stern and participants in the ILO Research Conference on ‘Key Lessons from the crisis and the Way Forward’ (Geneva, 16 - 17 February 2011) for their comments. We are grateful to Erik von Uexkuell for his support in designing this project and to Afshan Dar and Valeria Groppo for excellent research assistance. All opinions and errors are those of the authors. Research for this paper was partly funded by the Swiss National Science Foundation under a grant to the National Centre of Competence in Research on Trade Regulation, based at the University of Bern’s World Trade Institute in Bern, Switzerland. An earlier version of this paper appeared under the title “References to Domestic Labour Market Regulation in Regional Trade Agreements” as NCCR Working Paper No. 2010/35. Publication does not constitute an endorsement by the ILO.

This paper has been developed as an input to the International Collaborative Initiative on Trade and Employment (ICITE). The views expressed are those of the authors and do not necessarily reflect those of the partner organisations of the ICITE Initiative.

1. Introduction

Increasing economic integration among countries has contributed to raising concerns about a ‘race to the bottom’ in labour standards, i.e. a vicious circle of ever lower labour standards in order to remain competitive in global markets. Indeed, to the extent that labour standards increase production costs they will have repercussions on relative prices and thus possibly trade flows. Accordingly, when border protection is reduced, governments may feel tempted to boost the competitive position of domestic producers by reducing the cost of regulation born by their enterprises even if this implies a lowering of the levels of protection that regulation is meant to provide to workers. In the absence of internationally agreed rules on domestic regulation, races to the bottom could arise, just like tariff or subsidy wars could arise in the absence of relevant multilateral rules on trade policies (Copeland, 1990; Bagwell and Staiger, 2002).

The concern that openness may compel individual governments not to raise or even to lower labour standards has led to calls for tying labour provisions to trade arrangements between countries. According to the ILO (2009), labour provisions in trade agreements have substantially increased in prevalence over the past 25 years. Many of these labour provisions make reference to internationally recognized core labour standards. In particular, explicit reference is often made to the 1998 ILO Declaration on the Fundamental Principles and Rights at Work, with stipulations requiring the improvement of freedom of association and collective bargaining rights, the abolition of forced and child labour, and non-discrimination¹. ILO (2009) also indicates that in recent years, preferential trade agreements increasingly contain provisions making reference to domestic labour regulation.

In this paper we take a deeper look at the latter type of provisions and analyse them in detail. We pay particular attention to provisions implying commitments to prevent undercutting of domestic labour standards below levels prevalent upon entering the trade agreement and those reflecting commitments to strive to improve upon prevalent standards². Such provisions have the characteristic to take as a reference point the level of protection provided by domestic labour standards at the time of signing the trade agreement. They discipline deviations that lower those protection levels and encourage deviations in the direction of increasing protection levels. Those provisions therefore do not explicitly encourage harmonization of standards and existing differences in protection that reflect cross-country differences in productivity or income levels can be maintained³. The discussion in this paper focuses on relevant provisions in RTAs concluded by the United States, by the European Union and those concluded in the Asian-Pacific region. It turns out that different players appear to have different preferences as to which type of provisions they refer to in their RTAs.

Provisions referring to labour standards are most frequent in RTAs involving the United States and the European Union, and they tend to be introduced on the behest of their parliaments⁴. Labour movements and other stakeholders in the U.S. and the E.U. often demand the inclusion of references to labour standards in RTAs. It is our assumption

¹ The term “core labour standards” often used in the relevant economic literature typically refers to the principles and rights stipulated in the 1998 ILO Declaration.

² Although those provisions do not explicitly refer to ILO Conventions, the question nevertheless arises how the obligations of Parties to the relevant trade agreements relate to the obligations the same States have as a member of the ILO and as party to possibly relevant ILO Conventions. This question is not further examined in this paper. For a discussion regarding the coherence of trade-related labour provisions with ILO standards see Gravel, Kohiyama and Tsotroudi (2011).

³ See Brown, Deardorf and Stern (2011) for a discussion of cross-country heterogeneity of standards for economic efficiency.

⁴ See Elliott (2011) and Bourgeois, Dawar and Evenett (2007).

that one of the objectives behind such requests is to protect overall domestic labour market conditions. Such RTAs usually include a commitment to adhere to the ILO Fundamental Principles and Rights at Work, and in addition commit the parties to prevent the undercutting of domestic labour standards, or to improve upon prevailing domestic standards⁵. It is therefore our interpretation that, for the E.U. and for the U.S., provisions preventing a lowering or encouraging an improvement of existing standards aim at labour market conditions going beyond international “core” labour standards as reflected in the Fundamental Principles and Rights at Work.

In our empirical work we examine whether “race to the bottom” concerns are justified by examining whether regional trade liberalisation has gone hand in hand with a weakening of labour market regulation other than that based on core labour standards. Our analysis therefore fills a gap in the by now relatively large empirical literature on the relationship between labour standards and trade that has tended to focus on core labour standards. In this paper, we use a recent dataset from the Fondazione Rodolfo De Benedetti (FRDB) that contains data on employment protection legislation (EPL) and unemployment benefits (UB) for the period 1980 to 2005. Both types of measures represent labour regulations that impact the working conditions and possibly production costs in a country. Particularly in a context of trade among developed countries, these variables are likely to be more pertinent for determining comparative advantage than core labour standards, as developed countries tend to take similar approaches to implementing the latter. We use panel regression techniques to examine whether increased trade within RTAs is associated with lower labour standards, in the sense of lower employment protection legislation or lower unemployment benefits. We include the usual control variables in our regression and also examine whether the effect of trade within RTAs differs across countries of different income levels. Our analysis has a number of limitations. It suffers from the endogeneity problem that is typical for this type of empirical work, but we try to address this with standard techniques. Our data do not allow us to analyse whether inclusion of labour provisions in RTAs has an impact on the relationship between trade and labour standards. This is the case, because most relevant RTAs have been concluded too recently. Last but not least, labour provisions in private sector initiatives, such as codes of labour practice of multinational companies, are also not at all covered in this paper.

The paper is organised as follows. Section 2 provides an overview of the type of labour provisions currently found in Regional Trade Agreements. Particular emphasis is given in this discussion to labour provisions referring to domestic (rather than international) labour market regulation. Section 3 provides an overview of the existing economic literature on international and domestic labour standards and trade. This overview reveals that few contributions have explicitly examined whether trade within RTAs leads to weaker domestic labour market regulation. In section 4, we present evidence on the evolution of trade within RTAs in the past decades and the evolution of employment protection legislation and unemployment benefits across countries and over time. We then present findings of a dynamic panel analysis estimating the impact of trade within RTAs on these two types of labour variables. We find that increased regional trade has indeed gone hand in hand with a weakening of domestic labour market regulation, albeit only in our sample of industrialized countries. Section 5 discusses whether current provisions in RTAs have the potential to be effective to avoid the observed weakening of labour standards. Section 6 concludes.

⁵ All E.U. Member States have ratified the conventions referred to in ILO Fundamental Principles and Rights at work. Although it has only ratified two of the eight conventions of the ILO Fundamental Principles and Rights at Work, the U.S. tends to apply domestic laws that are equivalent to the relevant conventions, albeit with some differences with regard to freedom of association. Both the EU and the US therefore appear to be substantially committed to the Fundamental Principles and Rights at Work that reflect core labour standards.

2. References to labour provisions in RTAs

This section describes and analyses the legal provisions referring to labour standards in trade agreements. While references to ILO's fundamental principles and rights at work have been well-researched and discussed elsewhere (Doumbia-Henry and Gravel, 2006), our study focuses on references to domestic labour market regulation and their impact.

We start our examination with three general comments before analysing in more detail examples from RTAs of major trading nations. The section concludes with a general typology on which we will then base our econometric study. Different institutional and procedural mechanisms foreseen for implementation purposes, including dispute settlement provisions and the thorny issue of sanctions in case of infringements and non-compliance will be discussed in Section 5.

Generalities

First, references to labour standards can be found in at least three types of international economic law instruments, namely in various types of trade agreements, in unilateral trade preference schemes under the Generalized System of Preferences (GSP), and in bilateral investment protection treaties (BIT). Our study focuses on labour provisions contained in RTAs (including bilateral agreements) notified to the WTO under GATT-Article XXIV. We note, however, that some of the more recent agreements are of a comprehensive nature and go far beyond trade in goods. Among others, the US – Peru agreement which entered into force on 1 January 2009 also covers trade in services including the movement of natural persons, government procurement, environment, competition policy and investment. As will be seen in Section 5, the institutional arrangements and the various dispute settlement mechanisms in this agreement, including Arbitral Panels and Private Commercial Dispute Settlement, extend to most of these subjects. Our legal analysis of the normative value of labour provisions in RTAs thus automatically extends to some of these areas as well.

Secondly, in 2009, the ILO reported that 'labour provisions adopted in trade arrangements have multiplied over the past 25 years'⁶. This study also estimated that 37 out of 186 bilateral and regional trade agreements in force and notified to the WTO contained labour provisions⁷, and underlined that this represented a considerable increase from only 4 such agreements in 1995. According to the same ILO report, 60% of these provisions made specific references to ILO Conventions or to the ILO 1998 Declaration. Also, 46% were found to be 'conditional' (foreseeing sanctions or positive incentives), while 54% were 'promotional' (involving monitoring and capacity building). Moreover, the most widespread type of reference was 'the requirement not to lower the level of protection of their national labour law in order to encourage trade and investment'⁸.

Using a different approach for identifying labour provisions, the WTO Secretariat arrives at a number of 17 out of 202 in force in 2011, with only 10 having developing countries as treaty partners. With one exception all of these 17 agreements entered into force in the 21st century. This makes any empirical impact assessment difficult, and it may also help to explain the almost total absence of case law⁹. It is worthwhile pointing out,

⁶ ILO (2009), p. 63.

⁷ The WTO Secretariat lists trade-related agreements notified by its Members and in force. The database is available at <http://rtais.wto.org/ui/PublicMaintainRTAHome.aspx> (accessed 28 April 2011). It should be pointed out that a comparison between ILO and WTO databases is subject to limitations since, in the latter, labour provisions are only counted if they have been mentioned explicitly under the WTO transparency mechanism. As a result, numerous FTA labour provisions – even the most well-known ones, such as those in Northern American FTAs – are not covered by this approach.

⁸ ILO (2009), p. 71.

⁹ Under NAFTA/NAALC, though, more than 35 cases have been filed so far.

also, that the RTAs concluded by the United States and the European Union are one of the main drivers behind the observed increased frequency of labour provisions in RTAs¹⁰.

Our third general remark concerns the many different approaches to labour provisions in trade agreements. Bartels (2009) provides an overview of the RTAs in force, showing that there is no clear pattern. Dawar (2008) underlines that, even among developed countries, the practice is far from being universal. Though the United States and the European Union regularly include such references into their new agreements, this is not done in a consistent way. Other industrialised countries – except perhaps New Zealand – are more reluctant. Bartels (2009) noted that Australia rejects such a linkage as a matter of principle; it has only in its FTAs with the USA (2005) and later with Chile (2009) accepted to insert a reference to labour standards; Japan and Switzerland seem to have similar views on the matter. These countries rarely include references to labour standards in their RTAs. Norway and Iceland which might have been more pro-active in this field have concluded most of their RTAs together with Switzerland and in the framework of the European Free Trade Agreement (EFTA). This may explain why no EFTA RTA contains specific commitments on labour standards¹¹.

On the other side and rather as an exception for FTAs among industrialised countries, the recent Japan – Switzerland agreement (2009) has a relatively stringent formulation in this respect¹²:

Art. 101 ‘The Parties recognise that it is inappropriate to encourage investment activities by relaxing domestic health, safety or environmental measures or *lowering labour standards*. To this effect, each Party *should not waive or otherwise derogate* from such measures and standards as an encouragement for establishment, acquisition or expansion of investments in its Area.’ (emphasis added)¹³

RTAs among developing countries tend to place social policies in a development context. There are very few references to labour provisions, sometimes by way of a fleeting reference to ILO core labour standards, but no mutually binding commitments, let alone enforcement mechanisms. Where there are references to labour provisions, they underline the primacy of domestic regulation.

In the absence of any concerted drive, let alone a multilateral framework guiding the interface between labour standards and trade agreements, this variety of situations is hardly surprising.

¹⁰ See Horn, Mavroidis and Sapir (2010) for a similar view. Ebert and Posthuma (2011) also emphasize the role of Canada, Chile and New Zealand in the shaping of labour provisions in Regional Trade Agreements.

¹¹ The EFTA-Hong Kong FTA which was signed in June 2011 contains (promotional) labour provisions in a separate side agreement. The entry into force of this agreement was pending at the time of writing this paper.

¹² A similar provision is contained in the Japan-Philippines FTA.

¹³ A very similar provision is contained in the Japan-Philippines FTA. The EFTA-Hong Kong FTA which has been concluded but not yet entered into force has (promotional) labour provisions attached to it in a separate side agreement. See at: <http://www.efta.int/free-trade/free-trade-agreements/hong-kong/labour-agreement.aspx> (accessed 02.04.2012)

United States

Basically on the insistence of Congress as the ratifying authority for all trade agreements, the US Government has included labour in its trade negotiating agenda since at least 1974¹⁴. Improvements in labour protection by other countries were sought unilaterally, bilaterally and at the regional and multilateral level. The biggest effort was made in the context of various US trade preference schemes, for instance for Ecuador (Elliott, 2004). At the regional level, it is in the first RTA to which the US became a party that substantial labour provisions were introduced for the first time in a side agreement, i.e. in the North American Free Trade Agreement (NAFTA 1994). Since then the United States has incorporated different labour provisions in all of its RTAs. In the multilateral trading system, however, all attempts made by the US and other developed countries have so far remained unsuccessful.

By April 2011, ten US agreements were notified to WTO and in force. The following table summarises the types of references to labour standards contained in the other nine agreements.

¹⁴ See Elliott (2011) for a more extensive discussion.

Table 1. Labour Provisions in RTAs to which the United States is a party¹⁵

RTA Parties	Type of agreement ¹⁶	Date of entry into force	Place and types of labour provisions
North American Free Trade Agreement (NAFTA)	FTA&EIA	01-Jan-1994	Side agreement: Ensure high levels of labour standards and strive for a continuous improvement of domestic standards (further described below).
US - Australia	FTA&EIA	01-Jan-2005	Main agreement: 'A Party shall not fail to effectively enforce its labour laws, through a sustained or recurring course of action or inaction, in a manner affecting trade between the Parties.' (Art.18.1)
US - Bahrain	FTA&EIA	01-Aug-2006	Main agreement: Similar provisions as for US – Australia (e.g. Art.15.2). The promotion of labour standards is laid down in a 'Labor Cooperation Mechanism' while implementation is regulated in an Annex.
US - Chile	FTA&EIA	01-Jan-2004	Main agreement: Similar provisions as for US – Australia (e.g. Art.18.2), including through a 'Labor Cooperation Mechanism' (Annex to Art.18.5).
US - Jordan	FTA&EIA	17-Dec-2001	Main agreement: 'each Party shall strive to ensure that it does not waive or otherwise derogate from, or offer to waive or otherwise derogate from, such [labor] laws as an encouragement for trade with the other Party' (Art.6.2). Joint Committee to consider 'opportunities to improve labor standards' (Art.6.5).
US - Morocco	FTA&EIA	01-Jan-2006	Main agreement: Similar provisions as for US – Jordan (e.g. Art.16.2), including through 'Labor Cooperation', especially to prevent child labor (compliance with ILO Convention 182).
US - Oman	FTA&EIA	01-Jan-2009	Main agreement: Each Party shall 'strive to ensure' compliance with the ILO Declaration on Fundamental Principles and Rights at Work and its Follow-up (1998) (Article 16.7), including through a Labor Cooperation Mechanism (Annex 16-A).
US - Peru	FTA&EIA	01-Feb-2009	Main agreement: 'Neither Party shall waive or otherwise derogate from, or offer to waive or otherwise derogate from, its statutes or regulations [...] in a manner affecting trade or investment between the Parties, where the waiver or derogation would be inconsistent with a fundamental right set out in that paragraph.' (Art.17.2.2). A 'Labor Affairs Council' (Art.17.5) is to 'oversee the implementation', and a 'Labor Cooperation and Capacity Building Mechanism' is to ensure compliance with ILO Convention 182 (Art.17.6).
US - Singapore	FTA&EIA	01-Jan-2004	Main agreement: Similar provisions and institutional arrangements as for US – Oman (Chapter 17 and Annex 17A).

Source: WTO RTA Database (<http://rtais.wto.org/UI/PublicAllRTAList.aspx> accessed 19 April 2011). Content description by the authors.

¹⁵ The US – Israel FTA which was signed and entered into force back in 1985 – as the first FTA entered into by the United States – contains no specific labour provisions in either the main text or in an annex.

¹⁶ The database which is regularly updated and available on-line contains four types of agreements: Free Trade Agreements (FTA), Customs Unions (CU), Economic Integration Agreements (EIA) and "Partial Scope" Agreements (PS).

This table shows that the labour provisions in US agreements are often a mixture of duties ('prevent child labor') and of commitments to avoid a 'race to the bottom' ('enforce labour laws in a manner affecting trade'). A feature also found in some of the more recent US treaties with developing countries are various active cooperation mechanisms implemented through labour councils mandated to seek 'opportunities to improve labor standards.'

The most elaborate labour provisions in any of these agreements remain those in the North American Free Trade Agreement (NAFTA). Social matters are linked to the trade provisions through a side agreement called the North American Agreement on Labor Cooperation (NAALC). Regarding the levels of protection, Article 2 provides that all three trading partners shall ensure high levels of labour standards:

Affirming full respect for each Party's constitution, and recognizing *the right of each Party to establish its own domestic labor standards, and to adopt or modify accordingly its labor laws and regulations*, each Party shall ensure that its labor laws and regulations provide for high labor standards, consistent with high quality and productivity workplaces, and shall continue to strive to improve those standards in that light.'

The NAALC does not define how 'high' these standards have to be, nor does it prescribe any particular type of improvements. At the domestic level, all the signatories have to do is to 'continue to strive to improve' their own standards.

Most RTAs explicitly reserve the right of the Parties to establish their own labour standards and – except for references to ILO – exclude common standards applicable to each signatory's domestic labour legislation. A significant provision found in several RTAs is an explicit recognition that the administration of labour standards implies a considerable degree of discretion which by itself cannot be viewed as having a trade-distorting effect. For example, Article 17.2.1(b) of the US – Singapore FTA foresees that

'each Party retains the right to exercise discretion with respect to investigatory, prosecutorial, regulatory, and compliance matters and to make decisions regarding the allocation of resources to enforcement with respect to other labor matters determined to have higher priorities. Accordingly, the Parties understand that a Party is in compliance with subparagraph (a) where a course of action or inaction reflects a reasonable exercise of such discretion, or results from a bona fide decision regarding the allocation of resources.'

The treaty text acknowledges that social protection can be relevant for trade and for investment decisions. However, with the qualifying verb 'strive to', the admonition not to weaken domestic legislation or to diminish adherence to international standards stops short of clearly committing the parties not to lower their own standards:

(Art. 17.2.2) The Parties recognize that it is *inappropriate to encourage trade or investment* by weakening or reducing the protections afforded in domestic labor laws. Accordingly, each Party shall *strive to ensure* that it does not waive or otherwise derogate from, or offer to waive or otherwise derogate from, such laws in a manner that weakens or reduces adherence to the internationally recognized labor rights referred to in Article 17.7 as an encouragement for trade with the other Party, or as an encouragement for the establishment, acquisition, expansion, or retention of an investment in its territory.' (emphasis added)

Recent developments concern the three FTAs with Colombia, Korea, and Panama, which had been signed back in 2006 and 2007 but ratified by the US Congress only in October 2011¹⁷. One reason for the delay in ratification was the need felt by Congress to

¹⁷ Of these three agreements only the US – Korea treaty (KORUS) was in force at the time of writing this article.

For the texts cf. US – Colombia:

http://www.ustr.gov/sites/default/files/uploads/agreements/fta/colombia/asset_upload_file993_10146.pdf;

KORUS: http://www.ustr.gov/sites/default/files/uploads/agreements/fta/korus/asset_upload_file934_12718.pdf;

further negotiate labour provisions as originally foreseen in the legal texts. One example was the modalities laid down in the ‘Labor Action Plan’ with Colombia on the right to collective bargaining, the prevention of violence against labor leaders, and impunity from prosecution¹⁸. Also after signature, an example concerning Panama arose because of new concerns such as a lack of workers’ protection in export processing zones¹⁹.

The recent three agreements reaffirm the parties’ obligations as members of the International Labour Organization (ILO). They refer specifically to the abolition of child labour. At the same time they confirm the right of each party to maintain its own procedures and confidentiality provisions²⁰. The standard formulations and institutional arrangements in these three FTAs resemble the earlier agreements listed above, including ‘Labor Affairs Councils’. In the agreements with Colombia and Panama, a ‘Labor Cooperation and Capacity Building Mechanism’ is foreseen which will ‘take into account each Party’s economy, culture, and legal system’²¹. The same agreements prescribe a cooperative consultative mechanism before a labour-related dispute could be taken up under the formal dispute settlement mechanism²².

European Union

In 1995 the European Union started to systematically include labour clauses in all future international trade agreements, including regional trade agreements, ‘by way of co-operation, entailing where necessary, financial and technical assistance’. Such labour standards may be part of ‘social chapters’ containing mandatory promotion and protection of general human rights²³.

US - Panama <http://www.ustr.gov/trade-agreements/free-trade-agreements/panama-tpa/final-text>; all three texts accessed 02.04.2012

¹⁸ An example mentioned apparently concerned the use in Colombia of cooperatives to avoid a direct employment relationship and thereby circumvent workers’ rights to bargain collectively. See ‘USTR Seeks To Clarify Colombian Commitments Under Labor Action Plan’ in World Trade Online posted 28 April 2011.

¹⁹ On 30 March 2011 Deputy United States Trade Representative Miriam Sapiro announced that Panama’s National Assembly was about to ‘ensure labor rights are respected in export processing zones and to eliminate restrictions on collective bargaining in companies less than two years old.’ (See <http://www.ustr.gov/about-us/press-office/speeches/transcripts/2011/march/statement-deputy-us-trade-representative-miri-0> accessed 29 April 2011)

²⁰ In respect of labour-related ‘communications from persons of a Party’ based on Art.19.5.3 in the US-Korea draft FTA, an exchange of letters between the Korean and United States chief negotiators dated June 30, 2007 confirms ‘for greater certainty’ that neither party will be obliged to ‘to establish new procedures that duplicate existing channels for reviewing such communications.’

²¹ For Colombia, see Art. 17.6.2(c). The procedures for this mechanism are laid down in Annex 17.6. For Panama, see Art. 16.6.2(c) and Annex 16.6.

²² See Art.17.7.7 (for Colombia) and Art.16.7.7 (for Panama).

²³ Bartels (2009), pp. 361-63.

Table 2. Labour Provision in RTA's to which the EC is a party

RTA Parties	Type of agreement	Date of entry into force
EC - Albania	FTA & EIA	01-Dec-2006 (Goods) 01-Apr-2009 (Services)
EC - Algeria	FTA	01-Sep-2005
EC - Andorra	CU	01-Jul-1991
EC - Bosnia and Herzegovina	FTA	01-Jul-2008
EC - Cameroon	FTA	01-Oct-2009
EC - CARIFORUM States EPA	FTA & EIA	01-Nov-2008
EC - Chile	FTA & EIA	01-Feb-2003 (G) 01-Mar-2005 (S)
EC - Côte d'Ivoire	FTA	01-Jan-2009
EC - Croatia	FTA & EIA	01-Mar-2002 (G) 01-Feb-2005 (S)
EC - Egypt	FTA	01-Jun-2004
EC - Faroe Islands	FTA	01-Jan-1997
EC - Former Yugoslav Republic of Macedonia	FTA & EIA	01-Jun-2001 (G) 01-Apr-2004 (S)
EC - Iceland	FTA	01-Apr-1973
EC - Israel	FTA	01-Jun-2000
EC - Jordan	FTA	01-May-2002
EC - Lebanon	FTA	01-Mar-2003
EC - Mexico	FTA & EIA	01-Jul-2000 (G) 01-Oct-2000 (S)
EC - Montenegro	FTA & EIA	01-Jan-2008 (G) 01-May-2010 (S)
EC - Morocco	FTA	01-Mar-2000
EC - Norway	FTA	01-Jul-1973
EC - Overseas Countries and Territories (OCT)	FTA	01-Jan-1971
EC - Palestinian Authority	FTA	01-Jul-1997
EC - South Africa	FTA	01-Jan-2000
EC - Switzerland - Liechtenstein	FTA	01-Jan-1973
EC - Syria	FTA	01-Jul-1977
EC - Tunisia	FTA	01-Mar-1998
EC - Turkey	CU	01-Jan-1996

Source: WTO RTA Database (<http://rtais.wto.org/UI/PublicAllRTAList.aspx> accessed 29 April 2011)

By April 2011, 27 RTAs to which the EC is a party were in force and had been notified to the WTO. When looking at these treaties a first, interesting point is that only a few FTAs of the EU contain references to domestic labour standards – even those concluded after 1995 and with developing countries. Quite a few regulate residence and working permits for immigrants hailing from partner countries, but without having to specify that local labour standards will prevail. For instance, the EC – Montenegro FTA provides in Article 49.1(b) that

‘the legally resident spouse and children of a worker legally employed in the territory of a Member State, with the exception of seasonal workers and of workers coming under bilateral Agreements within the meaning of Article 50, unless otherwise provided by such Agreements, shall have access to the labour market of that Member State, during the period of that worker’s authorised stay of employment.’

Besides such ‘labour market access’ commitments which are not directly relevant for our study a few provisions on labour are worth noting here.

Interestingly, it is the oldest FTA of the EC which is still in force and which in its main text has a very clear, and never repeated commitment in respect of labour standards (EC – Overseas Countries and Territories (OCT), Art.52):

‘The internationally and nationally recognised core labour standards must be respected, in particular the freedom of association and protection of the right to organise, application of the right to organise and to bargain collectively, the abolition of forced labour, the elimination of worst forms of child labour, the minimum age for admission to employment and non-discrimination in respect to employment.’ (emphasis added)

The same agreement is quite explicit on the cooperation activities designed to improve working conditions (Art.8):

‘The Community shall cooperate with the OCTs in relation to labour standards. Cooperation in this area shall mainly consist of:

- (a) exchanges of information on respective labour laws and regulations;
- (b) assistance in the formulation of labour legislation and strengthening of existing legislation;
- (c) educational and awareness-raising programmes aimed at eliminating child labour;
- (d) enforcement of labour legislation and regulations.

The FTA with South Africa recognises that social progress is a condition to economic development. It envisages a dialogue on social issues with a reference to the relevant ILO standards (Art.86.2):

‘The Parties consider that economic development must be accompanied by social progress. They recognise the responsibility to guarantee basic social rights, which specifically aim at the freedom of association of workers, the right to collective bargaining, the abolition of forced labour, the elimination of discrimination in respect of employment and occupation and the effective abolition of child labour. The pertinent standards of the ILO shall be the point of reference for the development of these rights.’

A clause designed to prevent a ‘race to the bottom’ – and which comes surprisingly close to the wording of the so-called non-violation clause in GATT-Article XXIII – is found in Art.135.3 of the EC – Chile FTA addressing trade in financial services²⁴:

‘Nothing in this Title shall prevent a Party from applying its laws, regulations and requirements regarding entry and stay, work, labour conditions, and establishment of natural

²⁴ See Bagwell et al. (2002) for a discussion on the possible relevance of GATT-Article XXIII for ‘races to the bottom’ in labor standards.

persons provided that, in so doing, it does not apply to them in such a manner as to nullify or impair the benefits accruing to the other Party under the terms of a specific provision of this Title.’

The EC – Jordan FTA has a similar provision for the cross-border supply of services (Art.42):

‘For the purpose of this title, nothing in this Agreement shall prevent the Parties from applying their laws and regulations regarding entry and stay, work, labour conditions and establishment of natural persons and supply of services, provided that, in so doing, they do not apply them in a manner as to nullify or impair the benefits accruing to any Party under the terms of a specific provision of the Agreement.’

In respect of foreign direct investment, the Preamble to the EC – Cameroon FTA mandates that

‘the Parties shall not encourage foreign direct investment by making their domestic environmental, labour or occupational health and safety legislation and regulations less stringent or by relaxing their domestic labour legislation and regulations or regulations designed to protect and promote cultural diversity.’

The RTA concluded with the CARIFORUM States to which we dedicate the remainder of this Subsection is so far the only comprehensive regional Economic Partnership Agreement (EPA)²⁵. This 1953 pages long treaty contains no separate chapter dealing with labour issues. Nonetheless, references to labour standards literally abound in this agreement, often overlapping or repeating each other. This starts with the Preamble calling for the signatories to respect basic labour rights ‘in line with the commitments they have undertaken within the International Labour Organisation.’ The main implementation measures foreseen for that purpose are a strengthening of the technological and research capabilities of the CARIFORUM States (Art.7). The core labour standards referred to are ‘further elaborated, in accordance with the Declaration, in ILO Conventions concerning freedom of association, the elimination of forced labour, the abolition of child labour and the elimination of discrimination in the work place’ (Footnote to Art.69.5 lit.b). The investment chapter provides that investors will act in accordance with the ILO Declaration on Fundamental Principles and Rights at Work (1998), so as not to ‘manage or operate their investments in a manner that circumvents international environmental or labour obligations’ (Art.72 lit.b and c). Article 73 (Maintenance of standards) is probably the most explicit commitment in any RTA to avoid a ‘race to the bottom’ by way of arrangements with foreign direct investors:

‘The EC Party and the Signatory CARIFORUM States shall ensure that foreign direct investment is not encouraged by lowering domestic environmental, labour or occupational health and safety legislation and standards or by relaxing core labour standards or laws aimed at protecting and promoting cultural diversity.’

Article 191.4 emphasises that ‘labour standards should not be used for protectionist trade purposes’ (without defining ‘protectionist’). Article 191.1 specifies that the labour standards referred to are

‘freedom of association and the right to collective bargaining, the abolition of forced labour, the elimination of the worst forms of child labour and non-discrimination in respect to employment’.

Article 192 actually mandates ‘race to the top’ improvement efforts on all sides, albeit on a ‘best endeavour’ basis:

²⁵ Official Journal of the European Union (L 289/I/3) 30.10.2008.

[each Party] shall ensure that its own social and labour regulations and policies provide for and encourage high levels of social and labour standards consistent with the internationally recognised rights set forth in Article 191 and *shall strive to continue to improve those laws and policies.*' (emphasis added)

Article 193 provides that

'the Parties agree not to encourage trade or foreign direct investment to enhance or maintain a competitive advantage by:

- (a) lowering the level of protection provided by domestic social and labour legislation;
- (b) derogating from, or failing to apply such legislation and standards.'

Finally, an interesting reference to the ILO is made in the context of the consultation and monitoring process:

(Art.195.3) On any issue covered by Articles 191 to 194 the Parties may agree to seek advice from the ILO on best practice, the use of effective policy tools for addressing trade-related social challenges, such as labour market adjustment, and the identification of any obstacles that may prevent the effective implementation of core labour standards.

It remains to be seen whether this new pattern in EC trade agreements will be confirmed, first in the other Economic Partnership Agreements yet to be concluded, and in other RTAs later on. Obviously, contractual freedom allows for these and even more concise and mandatory provisions - the only limit being the non-discrimination rule each WTO Member has to abide by (Horn et al. 2010). The impact question of this extensive set of labour standard references will be discussed in Section 5.

Asia and Pacific

Interestingly, and perhaps tellingly, there are no substantive labour provisions in the recent RTAs concluded in the Asia and Pacific region. In order to compare labour provisions in Asian agreements with EU and US RTAs we will now look at the treaties concluded by the Association of South East Asian Nations (ASEAN) and some developed countries in the region. Using, again, April 2011 as a temporal benchmark there were 6 agreements in force and notified to the WTO with all ASEAN countries as parties.

Table 3. RTA's in the Asian and Pacific Region

RTA Parties	Type of agreement	Date of entry into force
ASEAN - Australia - New Zealand	FTA & EIA	01-Jan-2010
ASEAN - China	PSA & EIA	01-Jan-2005 (Goods) 01-Jul-2007 (Services)
ASEAN - India	FTA	01-Jan-2010
ASEAN - Japan	FTA	01-Dec-2008
ASEAN - Korea, Republic of	FTA & EIA	01-Jan-2010 (Goods) 01-May-2009 (Services)
ASEAN Free Trade Area (AFTA)	FTA	28-Jan-1992

Source: WTO RTA Database (<http://rtais.wto.org/UI/PublicAllRTAList.aspx> accessed 29 April 2011).

None of these regional trade agreements contains specific provisions on labour which are relevant for our study. The ASEAN – Japan agreement establishes economic cooperation programmes e.g. on intellectual property and on agriculture, but there is no mention of labour. The ASEAN – Korea treaty on trade in goods explicitly reserves domestic labour legislation. In respect of movement of natural persons, the ASEAN-Australia-New Zealand Agreement recognises in Chapter 9, Article 1(d), the need to ‘protect the domestic labour force and permanent employment in the territories of the Parties’.

Looking back into the past, we found that the ‘Arrangement on Labour between New Zealand and the Kingdom of Thailand’ (2005) had already provided a rather stringent formulation of commitments on labour standards²⁶:

(Art. 1.3) ‘Each Participant will ensure that its labour laws, regulations, policies and practices are not used for trade protectionist purposes.’

(Art. 1.4) ‘Each Participant will not seek to gain trade or investment advantage by weakening or derogating from its labour laws and regulations.’

As noted by ILO (2009), however, this Arrangement on Labour also explicitly provides that “[it] will not legally bind the Participants” (Section 4.1). At any rate, the arrangement has apparently been superseded by the ASEAN - Australia - New Zealand Agreement (2010).

²⁶ Concluded as part of New Zealand - Thailand Closer Economic Partnership Agreement. Available at <http://www.mfat.govt.nz/Trade-and-Economic-Relations/Trade-Relationships-and-Agreements/Thailand/Closer-Economic-Partnership-Agreement-text/0-labour.php> (accessed 29 April 2011).

A recent bilateral memorandum of understanding with a commitment not to undercut social protection has been concluded between New Zealand and the Philippines as a side agreement to the ASEAN-Australia-New Zealand Agreement (2010)²⁷. This agreement on labour cooperation is to ‘improve working conditions and living standards’ and to uphold high level standards of labour laws, policies and practices ‘in the context of economic development and trade liberalisation’. It foresees a long list of cooperative activities and establishes a Labour Committee, and a consultative mechanism. The provision which is to prevent a ‘race to the bottom’ reads as follows:

(Art.2.4) ‘The Parties recognise that it is inappropriate to set or use their labour laws, regulations, policies and practices for trade protectionist purposes.’

(Art.2.5) ‘The Parties recognise that it is inappropriate to encourage trade or investment by weakening or reducing the protections afforded in domestic labour laws, regulations, policies and practices.’

A definition of ‘trade protectionist purposes’ is lacking, and according to Article 6 there is no obligation to provide information ‘contrary to the public interest or the laws’. Even so, such a commitment to shield social policies from competitive pressures arising from trade liberalisation is remarkable, because of the challenges to enforce compliance by the other party or to withstand such pressures if they were to come from competition with large trading partners and low labour standards.

ILO (2009) noted that developing countries had not agreed on substantive commitments in respect of labour standards in agreements between them. Indeed, ‘South-South’ RTAs rather aim at “cooperation in labour matters” without clear terms of reference²⁸. Joint projects, exchange of information, and amicable consultation are frequently mentioned as examples for such cooperation. Cases in point besides the ASEAN FTAs are the RTAs mentioned in the ILO Report concluded by China and other Asian countries which contain provisions “[n]ot to encourage trade or investment through weakening labour laws.²⁹” Section 5 will discuss the practical implications of such provisions.

The Trans-Pacific Strategic Economic Partnership (2006) between Brunei Darussalam, Chile, New Zealand and Singapore has a similar objective in its ‘Memorandum of Understanding on Labour Cooperation’. This agreement is to provide a ‘forum to discuss and exchange views on labour issues of interest or concern with a view to reaching consensus on those issues’ (Art.1.b). The parties first insist on ‘their sovereign rights to set their own policies and national priorities and to set, administer and enforce their own labour laws and regulations’. Accordingly, institutional mechanisms do not reach beyond co-operation, consultation and dialogue. But they also reaffirm their obligations and commitments under the ILO and add a commitment to fight protectionism. The formulation adopted here is almost identical as the above-quoted New Zealand – Philippines side agreement:

(Art.2.5) The Parties recognise that it is inappropriate to set or use their labour laws, regulations, policies and practices for trade protectionist purposes.

(Art.2.6) The Parties recognise that it is inappropriate to encourage trade or investment by weakening or reducing the protections afforded in domestic labour laws.

²⁷ Available at <http://www.asean.fta.govt.nz/assets/Downloads/Instruments/moa-labour-nz-philippines.pdf> (accessed 29 April 2011).

²⁸ ILO (2009), pp. 70-71.

²⁹ ILO (2009), Table 3.5, p. 72.

Intermediate conclusion: three approaches to labour references

This overview illustrates that the present legal status of labour provisions in RTAs remains unclear, despite more frequent and more focused provisions. Stringent references are still relatively sparse, and totally absent in RTAs between developing countries. In our concluding section we will try to assess, on the basis of our econometric study, whether and which types of provisions may impact on the development of labour relations in both developed and developing countries.

By way of a mid-way conclusion we see three types of (not mutually exclusive) references to domestic labour standards in RTAs:

1. Commitments to strive to improve domestic standards are prevalent in RTAs to which the US is a partner.
2. Commitments not to lower existing domestic standards are a formulation also favoured by the EU seeking to avoid a ‘race to the bottom’.
3. Commitments to basically implement existing domestic standards are a kind of bottom line which developing countries have come to accept as a least constraining formulation, albeit within the overarching objective of their economic development.

In addition, many RTAs provide for technical assistance to strengthen adherence to ILO and to national standards in developing countries.

3. Trade and labour market regulation: Existing empirical evidence

A commitment 'not to lower' existing domestic standards to encourage trade and investment could well indicate an expectation that some treaty members may feel tempted to lower standards in the absence of such a commitment. The existence of such provisions therefore, arguably, reflects recognition on trade negotiators' side of the existence of pressures for a 'race to the bottom'. Along similar lines, it could be argued that commitments to 'strive to improve domestic standards' reflect concerns about 'regulatory chilling', i.e. concern that governments will be reluctant to raise such standards in open economies. One of the objectives of this paper is to evaluate whether concerns about 'races to the bottom' and 'regulatory chilling' are justified in the context of labour market standards.

The empirical work presented in this paper, therefore, adds to a growing body of literature analysing the relationship between trade and labour standards. Though growing, the existing evidence is still relatively thin, largely due to the lack of reliable data. A large part of the literature focuses on the impact that labour standards have on trade (and aspects that influence trade), while a few authors have treated labour standards as endogenous to trade and have analysed whether trade influences labour standards.

The relevant studies (discussed below) differ along a range of dimensions which makes comparisons of outcomes difficult. As usual in this type of literature, periods analysed tend to differ which may be one factor explaining different outcomes. The variable used to measure trade also differs across studies. Most studies focus on exports, but while some take all exports into account others focus on labour intensive exports - the presumption being that those are more likely to be affected by labour costs and thus labour standards. Studies also differ in the variable they use to measure labour standards, one difference being whether the measure used focuses on ratification of standards or on the outcome of labour market legislation. Another difference is that some papers focus on so-called core labour standards, based on the ILO Fundamental Principles and Rights at Work, while others work with different measures reflecting domestic labour market legislation.

Do labour standards affect trade flows?

The choice of labour standard measure is often linked to the country sample covered by the analysis. While measures for core-labour standards tend to be used in studies focusing on north-south trade, other measures are preferred in studies covering only or mainly developed countries. The latter may reflect that a majority of developed countries have ratified most if not all ILO Fundamental Principles and Rights at Work. Differences in those labour standards are thus unlikely to explain differences in trade patterns across developed countries. Given that we are in this paper interested in capturing possible 'race to the bottom' dynamics, we will in our econometric work use measures for labour market regulation that go 'beyond' core labour standards.

Variables other than those measuring core labour standards have to our knowledge so far mainly been used in papers that treat labour standards as the exogenous and trade flows as the endogenous variable. Van Beers (1998) examines the effect of labour standard stringency on bilateral trade flows for a sample of 18 OECD countries. He uses an outcome measure based on data collected by the OECD on government regulations concerning working time, employment contracts, minimum wages and workers' representation rights³⁰. Using a gravity model the author empirically examines whether high-standard OECD countries exhibit lower exports in labour-intensive goods than

³⁰ See OECD (1994) and the presentation of relevant data in Table 1 of van Beers (1998).

countries with lower standards. Van Beers (1998) finds no significant impact of labour regulation stringency on exports of labour-intensive commodities. However, if bilateral trade flows are also distinguished according to differences in skill-intensities a significant negative impact is found on exports of both labour-intensive and capital-intensive commodities that are produced with relatively more high-skilled labour³¹.

Dehejia and Samy (2008 and 2008b) and Bonnal (2010) use similar outcome-based measures for labour standards to analyse the effects of labour standards on trade. Dehejia and Samy (2008) examine the question in the context of a gravity equation and with the use of six different outcome-based measures for labour standards: the percentage of total public expenditure of GDP, an index of labour market well-being, actual weekly hours worked, trade union density rates, the number of strikes and lockouts, and occupational injuries. Overall, their results point to an association between improved export performance and lower labour standards when the occupational injuries variable is used. For most of the other labour standard variables, findings indicate a stronger export performance when standards are higher. In another study (Dehejia and Samy, 2008b) the authors address the same question using a different modelling framework (i.e. a Heckscher-Ohlin framework). In that study, the authors also distinguish between trade within the EU and trade with external partners. Results do point to a negative effect of labour standards on extra-EU exports. In the case of intra-EU trade, the authors find little evidence of a negative impact of labour standards on export performance, with some evidence of positive effects. Bonnal (2010) examines the impact of labour standards on export performance using a subset of the outcome-based labour standard measures used in Dehejia and Samy (2008a, 2008b), i.e. work injuries and the rate of strikes or lockouts. The author uses a dynamic panel model approach to account for the possible endogeneity of labour standards. Results point to labour standards actually improving export performance using both measures of standards.

Last but not least, Huberman and Messner (2008) distinguish short-term from long-term effects of labour market regulation in a study using a much longer time series. The authors investigate the effects of labour standards on the ratio of exports to imports of 17 Old World countries and 6 New World countries between 1870 and 1914. They consider four dummy measures of labour standards for accident compensation, factory inspections, maximum work hour for women and minimum age for child labour. The empirical results of a dynamic fixed effects and mean group models suggest that the impact of labour regulation on trade can be negative but without long-term effects. In particular, exports are not harmed if new labour regulation covers existing practices, but are negatively affected when firms and workers have to adjust to the new labour standards in place.

³¹ The author suggests that this may reflect a relative inelasticity in the labour demand for skilled labour, which would have the consequence that a higher share of the costs of labour standards is born by employers. More stringent standards would then have a stronger effect on skill intensive production than on low-skill intensive production.

Does trade threaten or encourage the implementation of core labour standards?

Only a few authors have examined whether trade is associated with lower labour standards in econometric work that treats labour standards as the dependent variable. Most of the relevant literature focuses on the role of core labour standards³². Technically, the difference between the studies discussed above and those discussed in this subsection is, that ‘trade’ now becomes the explanatory variable and ‘standards’ the dependent variable. The fact that the trade variable is sometimes put at the left side of the econometric equation and other times on the right hand side, makes the endogeneity problem very explicit. Most studies discussed in the following paragraphs have tried to address this, often by using instrumental variable (IV) techniques. The discussion below also shows that the inclusion of GDP per capita (and thus potentially the interactions between trade and growth) affects outcomes.

Neumayer and De Soysa (2006) reverse the (Kucera and Sarna, 2006) model, and treat FACB rights violations as the endogenous variable in a gravity model. Explanatory variables include trade openness, FDI penetration, an indicator variable for economic freedom, the share of the labour force employed in the industrial sector, percentage of value added by the manufacturing sector, per capita income, indicator variables for whether a country has ratified the ILO Conventions on FACB, a measure of democracy, a variable measuring the political orientation of government, and also dummy variables indicating the kind of legal system in place. They conduct IV estimations to control for the possibility of endogeneity of some of the key variables, including trade openness. Initial results for both, simple OLS and IV estimations for a sample of 139 developing and developed countries show that greater trade openness is associated with lower FACB rights violations. In a restricted sample of only developing countries, the authors get similar results.

Busse (2004) uses three core labour standard outcomes - forced labour and union rights, discrimination, and child labour - as the dependent variable in an econometric analysis for a sample of developing countries. When regional dummy variables are used, OLS regressions point to a positive and significant impact of trade openness on gender equality and likewise a positive and significant impact on child labour (which is akin to a decline in child labour). The author expands the analysis to a short panel and uses Fixed Effects (FE) estimation and a time dummy to account for time-varying factors. Results for the trade variable are mixed, but once a lag for the trade variable is introduced in lieu of the current measure, positive and significant effects are repeated for discrimination and child labour. In addition, results point to a negative and statistically significant impact on forced labour and union rights.

Edmonds and Pavcnik (2006) empirically examine the impact of trade openness on child labour prevalence in developing countries. Initial estimates suggest that greater openness is associated with less child labour, however, the authors point to this finding reflecting income effects. When cross-country differences in income are accounted for, the authors find no significant impact of trade openness on child labour for their sample of developed and developing countries. The same story emerges when the authors account for the possible endogeneity of income, restrict the sample to non-OECD countries, or when trade openness is measured as unskilled labour-intensive exports (relative to GDP).

Mosley and Uno (2007) findings are rather nuanced. They come to the conclusion that economic integration has mixed effects on labour rights of 90 developing countries between 1986 and 2002. Trade openness is negatively and significantly related to the rights of the workers, while FDI inflows have a positive impact. In addition, the empirical

³² See Mah (1997), Busse (2002), Kucera and Sarna (2006) and Bakhshi and Kerr (2010) for econometric studies that use measures of core labour standards as possible determinants of trade flows.

evidence highlights the importance of domestic institutions (proxied by a democracy and civil conflict indexes) as well as labour rights in place in neighbouring countries, once external debt, human right NGOs, GDP per capita, economic growth, population size and region dummies are included in the model specification.

Greenhill et al. (2009) use a very different model and evaluate the so-called ‘California effect’ associated with labour standards on the same panel of developing countries. They argue that, similar to the transmission of environmental standards, labour standards can be transmitted from importer to exporter countries depending on the export destinations. In particular, they suggest that it is not the overall level of trade openness that matters, but rather the level of labour standards in place in the trading partners³³. Based on a lagged spatial dynamic panel model, their results suggest that high labour standards in developing countries are associated with high labour standards in exporting countries, although this effect is weaker in terms of labour practices than labour laws. Overall, these findings suggest that importing countries are potentially able to influence positively or negatively the labour laws of the exporting country.

³³ In this paper, the authors explicitly take the role of labour provisions in RTAs into account and -following (Hafner-Burton, 2005) - they distinguish between RTAs which promotes ‘soft’ or ‘hard’ standards in terms of human rights principles. Their findings suggest that RTAs with ‘hard’ provisions lead to more stringent labour laws, while ‘soft’ provisions reduces the level of labour practices. The countries covered by the database used in Hafner-Burton (2005) only overlap partly with the countries in our dataset and we therefore could not use the interesting information on ‘soft’ and ‘hard’ standards in our analysis, as it would have reduced the country coverage significantly.

4. Regional Trade and the level of labour and social protection

In this paper we are interested in examining whether trade based on regional trade agreements may trigger races to the bottom and/or regulatory chilling effects. Our empirical exercise, therefore, falls into the last group of empirical studies discussed above, i.e. those taking labour standards as the dependent variable. Regional trade figures prominently among our explanatory variables. Given that industrialised countries have been and continue to be very active in concluding regional trade agreements, we try to find out whether and how trade within RTAs has affected labour standards in those countries. We thus focus on measures of specific labour standards that go beyond the Fundamental Principles and Rights at Work and fall under what is more commonly called “labour market regulation”. We will look in particular at variables related to labour protection.

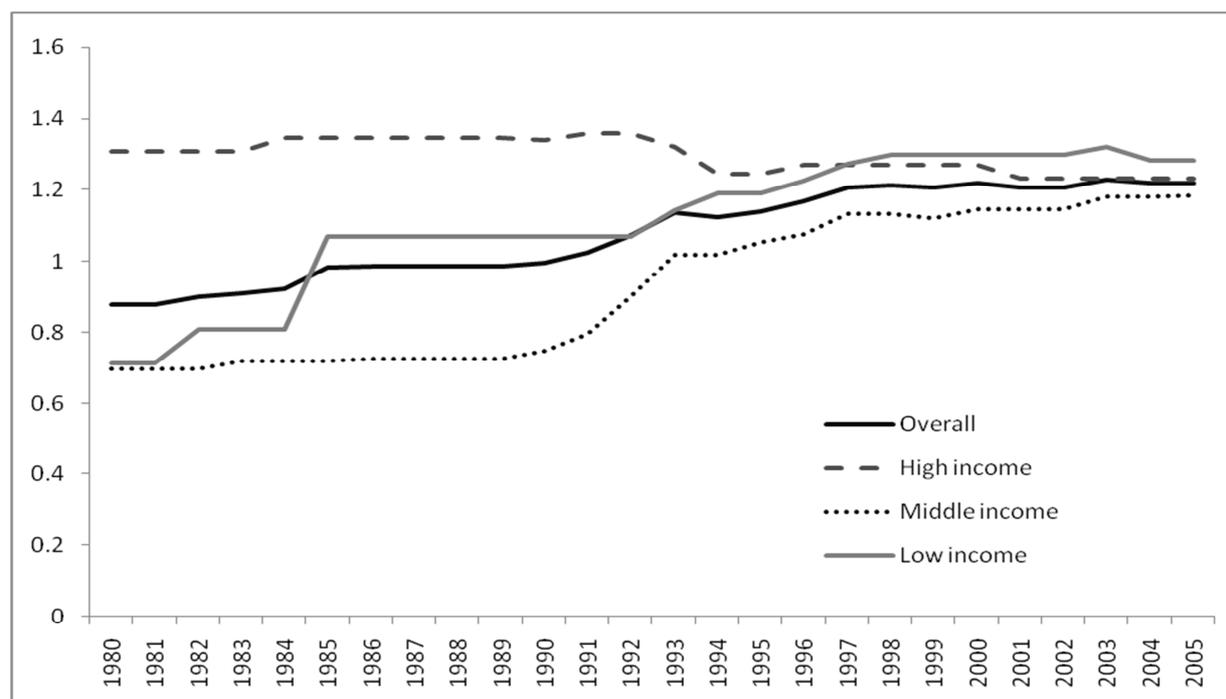
Our empirical analysis is closely related to the papers by Fischer and Somogyi (2009) and Olney (2011). Both papers analyse how globalization effects employment protection legislation in OECD countries. Fischer and Somogyi (2009) find that the economic forces of globalization and international competition lower employment protection of both regular and temporary employment. Olney (2011) focuses on Foreign Direct Investment and finds evidence that countries are competitively undercutting each other’s labour standards in order to attract foreign investment. The empirical exercise presented below differs from these two papers because of the larger country coverage and its focus on regional trade.

4.1. Data Description

Data used in our econometric exercise consists of a panel of 90 developed and developing countries (list of which can be found in the Appendix Table A1) that has been created by the *Fondazione Rodolfo Debenedetti (FRDB) Database on Structural Reforms* (2010). The data set contains information on employment protection legislation and unemployment benefits for these countries over the 1980 to 2005 time period. Employment protection legislation measures from the FRDB Database include the advance notice employers are required to give after 9 months, four, and twenty years of service. It also includes the amount of severance pay given in the three scenarios. Unemployment benefits are measured by Gross Replacement Rates (GRR) – that is, the percentage of earnings that are replaced by benefits after one year of unemployment, and after two years of unemployment. Also available is unemployment benefit coverage – the share of unemployed persons who receive benefits. Appendix Table A2 provides core statistics for all nine variables used in this paper.

Figure 1 below illustrates how domestic labour regulation changes over time and across countries (grouped by income) using the example of the average notice period (measured in months) given four years of service. Note the relatively larger dispersion in experience at the beginning of the period, followed by what appears to be a converging pattern. High income countries are found to have the highest average notice period at the beginning of the period, with a declining tendency in the latter part of the period. Low and middle income countries start with relatively lower notice periods, but show an increasing trend over the period with increases being stronger in low income countries. Overall, the figure reflects a pattern of convergence, with the increases in labour protection in low and middle income countries being larger than the declines experienced in high income countries.

Figure 1. Average notice period (4 years of service), 1980-2005



Source: FRDB Database on Structural Reforms, (2010).

The story is somewhat different when in the case of average severance pay over the period. The dispersion of experience at the beginning of the period is relatively large, and is even larger at the end of the period. Low and high income countries start the period with similar levels that are below the levels observed in middle income countries. This is followed by large increases experienced by low income countries, and relative stagnation for high income countries. By the end of the period, severance pay for high income countries is the lowest (just under one month) and that for middle income countries is the highest (2.8 months).

In the case of unemployment benefits measured by gross replacement ratios (share of wages covered by benefits after one year of unemployment) there is considerable variation in experience across country groups, and this variation appears to persist over the period. Low income countries start the period with very low gross replacement ratios (0.01), and this persists into 2005 (0.03), with only a moderate increase occurring in the early 1990s. Middle income countries show gross replacement ratios similar to low income countries in 1980, but show a considerable improvement over the period. There is a noticeable jump in replacement ratios for middle income countries in the early 1990s, probably largely attributable to the collapse of the Soviet Union. During the Soviet era, with only a few exceptions, unemployed workers did not receive compensation in the former Soviet Union (Gregory & Collier, 1988). Following the dissolution in 1991, former Soviet countries established laws on unemployment benefits. By the end of the period, middle income countries have gross replacement ratios of around 0.2. High income countries have large GRRs that persist over the period, starting at around 0.34 in 1980 and showing a GRR of 0.39 in 2005. A noticeable feature, however is that GRRs peaked for high income countries in 1999 (0.44), followed by a steady decline in subsequent years to pre-1999 levels.

In this paper we are particularly interested in how labour protection evolves in the context of trade within RTAs. In order to measure this variable, we use the WTO RTA database to identify RTAs and the year of their ratification. We face three problems in determining the amount of trade within the RTA. First, while it is simple to measure trade among members of an RTA it is not easy, and in many instances impossible, to measure

which trade among those members actually benefits from preferential treatment as a consequence of the RTA. Second, we face the same endogeneity problem as the studies discussed in Section 3, namely that labour market regulation may have an effect on actual trade. And third, we face an additional endogeneity problem, because the ratification of an RTA is likely to affect trade among RTA partners.

We try to solve these endogeneity problems by constructing our RTA-trade variable in the following way. First, we construct a variable indicating the presence of a Regional Trade Agreement (RTA) for each country pairing at each time period. Thus if an RTA was signed between two countries in 1994, for example (i.e. Canada and Mexico with the signing of NAFTA), the variable would indicate “0” for these two countries for 1980 to 1993, and a “1” for 1994 until the end of the period. We then weigh this indicator variable by export shares in 2005 for each country pairing being a party of the relevant RTA, where export shares correspond to the share of RTA exports as a percentage of total exports³⁴. Note that we use export shares in 2005 as a base year for all countries and throughout our analysis. In addition we use one year lags, indicating that we measure the effect of the conclusion of an RTA on labour market regulation in the following year. Accordingly our RTA variable is constructed using the following equation:

$$TP_{it} = \sum_j^N RTA_{ijt} \times TradeShare_{ij2005}$$

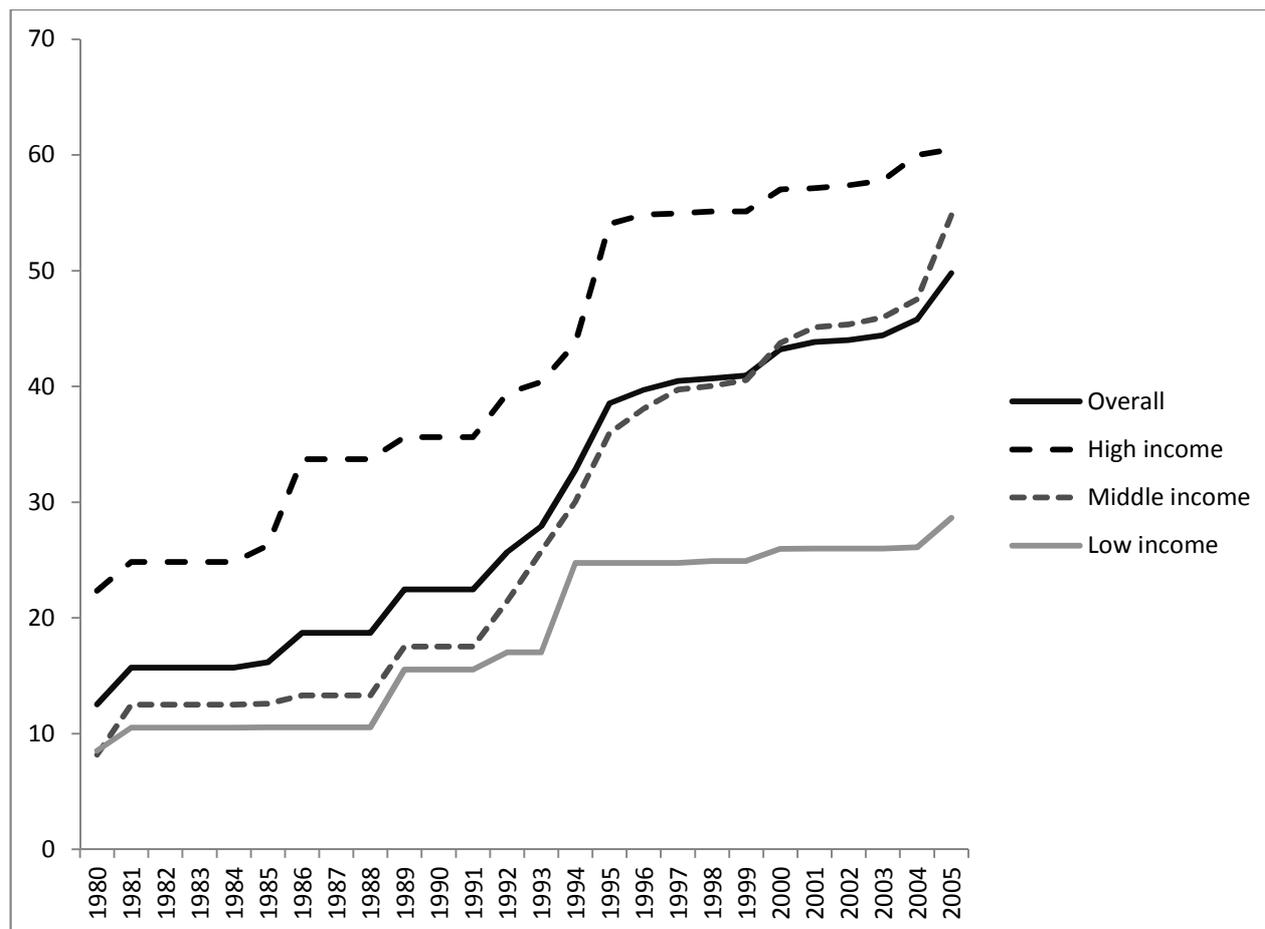
with $i \neq j$

where RTA_{ijt} is a dummy variable taking the value of 1 if there is a RTA between country i and j at time t .

Figure 2 below shows the average share of exports between members of RTAs over the time period, based on our RTA variable and broken down by income groups. We can see quite readily that trade within RTAs has grown considerably for all countries over the period – in 1980, RTA related exports trade agreements accounted for 12.5 per cent of all exports, increasing to 49.8 per cent in 2005. High income countries show higher RTA trade over the entire period, and also show considerable growth. Low and middle income countries both show relatively low RTA trade in 1980 (8.2 and 8.6 per cent respectively). While middle income countries show considerable growth in RTA trade, the increase is relatively modest for developing countries overall. In 2005, 54.8 per cent of exports by middle income countries were taking place in the context of RTAs, compared to a more modest 28.6 per cent in developing countries.

³⁴ Using this variable, we control to a certain extent for MFN trade.

Figure 2. Average exports within RTAs, 1980-2005



Source: Authors' calculations.

Overall the description of our dataset presented above illustrates that trade within RTAs has increased significantly over our observation period and that this has on average been the case for countries of all income groups in our dataset. The data on labour market regulation do not provide any clear evidence of a general race to the bottom. Only in high income countries there appears to be a pattern of a reduction in labour protection. In low and middle income countries, instead, labour protection has tended to increase over time. Overall our data, therefore, rather seem to reflect a “race to the middle” than a race to the bottom.³⁵

³⁵ Standard statistics for our main variables can be found in the appendix.

4.2. Estimation Procedure

Econometric Methodology

In order to assess whether regional trade has played any role in the changing pattern of labour market regulation in our sample, we use a panel regression covering up to 74 countries from 1980 to 2005.

The linear econometric specification reads as follows:

$$L_{it} = c + \alpha TP_{i,t-1} + X_{it}\beta + D_i\gamma + T_t\delta + u_{it}$$

where L_{it} represents a measure of labour standards in country i at time t (e.g. notice period, severance pay or gross replacement ratio) and TP_{it} is the portion of trade flows attributable to preferential trade agreements between countries i and j at time t . Other exogenous control variables are included in the matrix X_{it} (real GDP per capita, employment in the industry sector, manufacturing value added, political rights, civil liberties and democracy indexes, chief executive years in office), while country (e.g. regional and income group dummies) and time effects are represented by D_i and T_t , respectively. Finally, u_{it} represents the idiosyncratic error term.

In order to determine whether random or fixed effects should be considered, we perform the standard Hausman test. The test consists of comparing the difference between the parameters estimate associated with the random and fixed effects. Under the null hypothesis, the difference is not statistically different from zero. More specifically, the random specification is efficient and consistent, while the fixed effect is consistent but less efficient. Under the alternative hypothesis, the parameters of both specifications are statistically different from each other. The random effects are inconsistent, while the fixed effects remain consistent. For all specifications considered, the Hausman test suggests that the random effect specification is preferred over the random effect. This result can partially be explained by the nature of the dependent variable. Since the level of labour standard is relatively non-time varying, the standard deviation within countries is always statistically smaller than the variation between countries (see the Standard Deviation Decomposition Table). Therefore, the individual effects, whether fixed or random, already captured a high share of within variation.³⁶

Estimation results

In a first set of estimations we regress different measures for labour market regulation on our full set of control variables. The RTA variable is based on imports from partners who are members to an RTA concluded by the country, the labour market regulation of which figures as the dependent variable. We always include the log of GDP per capita in our regressions in a simple form and also squared. This is to control for the interaction effect between trade and growth highlighted in Edmonds and Pavcnik (2006). In fact, it will be interesting to observe how the significance of the GDP per capita variable evolves as we change specification of our regressions. Two additional economic controls are included: level of industrial employment and the share of manufacturing value added in GDP. We expect both variables to be positively correlated with labour market protection. Our regressions also include a set of political control variables as it is expected that labour

³⁶ This specific feature of the dependent variable also rules out the use of a dynamic panel specification. In fact, the inclusion of a lagged dependent variable leads to high multi-collinearity affecting the level of significance of the remaining parameters. In order to mitigate any potential endogeneity between the dependent variable and the time-varying explanatory variables, some specifications includes the lagged values of the control variables.

market regulation is more protective in countries with a more stable political environment or a stronger protection of civil or political rights. The four control variables included are: political rights, civil rights, years in office and democracy. Sources of data are described in Appendix-Table 3.

In the tables 4 to 6 below, we report the findings for a first set of regressions figuring eight different dependent variables: notice period after 9 months, 4 years and 20 years of service; severance pay after 9 months, 4 years and 20 years of service; and gross replacement ratio of unemployment benefit after 1 and 2 years of unemployment. The first column in the table shows results for regressions using fixed effects. Column (2) and (3) reflect findings when a random effects specification is used. The difference between the two columns is that in the (3) column, regressions included regional dummies. Tables 4 to 6 report only estimated coefficients for our main variable of interest, i.e. the RTA variable, and our set of economic controls. Full regression results are reported in Appendix-tables 4 to 11.

Two findings deserve to be highlighted. First, GDP per capita tends to be significant in our regressions and has a positive sign indicating that countries strengthen labour protection as they become richer. Yet this positive relationship weakens as countries become richer as reflected in the negative significant sign in the squared GDP per capita variable. Second, the RTA trade variable is significant, notwithstanding the presence of the GDP per capita variable, in three out of eight regressions, i.e. in the regressions figuring notice period after 9 months of service, severance pay after 20 years of service and gross replacement ratio after one year of unemployment. In all three cases the sign of the estimated parameter is negative.

Results do not differ significantly for random or fixed effects specifications. All control variables are either insignificant or tend to be significant with the expected sign, one exception being the significant and negative relationship between the share of manufacturing in GDP and gross replacement ratios. Among the policy controls, civil rights stand out as the variable systematically having a positive and strongly significant correlation with labour market protection.

The regression using gross replacement ratios after two years as a dependent variable performs generally badly, which may be linked to the fact that very few countries in our sample provide any employment benefits at all after such a long period of unemployment. The findings concerning notice periods in severance pay may reflect that for workers employed for 20 years and more, severance pay reflects the highest burden for employers in case of separation. For workers who have only stayed with a company for a short time, the notice period may represent a higher cost than the severance pay. To lower the burden of labour protection on employers, notice periods may therefore be the more obvious target in the case of relatively short working relationships and severance pay in the case of long relationships. In other words, our findings may be a reflection of the fact that a call for more flexible labour markets in the light of globalization will mainly affect notice periods after nine months of service and severance pay after long periods of service.

Table 4. Regional trade and notice periods

	(1) Fixed Effects	(2) Random Effects	(3) Random Effects
Dependent variable: Notice period after 9 months			
Regional trade flows			
RTAs*Importst-1	-0.404*** (0.155)	-0.367** (0.147)	-0.375** (0.149)
Economic controls			
ln (GDP p.c.)t-1	1.719*** (0.559)	1.361*** (0.472)	1.578*** (0.512)
(ln (GDP p.c.))2t-1	-0.084*** (0.029)	-0.070*** (0.026)	-0.078*** (0.027)
ln (Industrial Employment)t-1	0.097* (0.051)	0.073 (0.050)	0.081 (0.052)
ln (Manufacturing VA/GDP) t-1	0.121 (0.074)	0.144*** (0.071)	0.130* (0.075)
Dependent variable: Notice period after 4 years			
Regional trade flows			
RTAs*Importst-1	-0.111 (0.136)	-0.071 (0.132)	-0.079 (0.132)
Economic controls			
ln (GDP p.c.)t-1	1.797*** (0.556)	1.550*** (0.483)	1.726*** (0.515)
(ln (GDP p.c.))2t-1	-0.095*** (0.029)	-0.082*** (0.026)	-0.091*** (0.027)
ln (Industrial Employment)t-1	0.048 (0.052)	0.033 (0.049)	0.034 (0.052)
ln (Manufacturing VA/GDP) t-1	0.133* (0.076)	0.135* (0.073)	0.134* (0.077)
Dependent variable: Notice period after 20 years			
Regional trade flows			
RTAs*Importst-1	0.122 (0.144)	0.195 (0.145)	0.131 (0.142)
Economic controls			
ln (GDP p.c.)t-1	2.453*** (0.635)	2.253*** (0.590)	2.423*** (0.604)
(ln (GDP p.c.))2t-1	-0.138*** (0.035)	-0.118*** (0.033)	-0.136*** (0.033)
ln (Industrial Employment)t-1	-0.004 (0.060)	-0.001 (0.057)	-0.013 (0.059)
ln (Manufacturing VA/GDP) t-1	0.155 (0.097)	0.117 (0.094)	0.15 (0.096)

Note: robust standard errors in parentheses. All regressions also include political controls, country dummies and time effects (full results in the Appendix).

* Statistical significance at the 10% level

** Statistical significance at the 5% level

*** Statistical significance at the 1% level

Table 5. Regional trade and severance pay

	(1) Fixed Effects	(2) Random Effects	(3) Random Effects
Dependent variable: Severance pay after 9 months			
Regional trade flows			
RTAs*Importst-1	0.007 (0.102)	0.032 (0.107)	0.031 (0.106)
Economic controls			
ln (GDP p.c.)t-1	-1.404*** (0.435)	-1.092*** (0.406)	-1.317*** (0.433)
(ln (GDP p.c.))2t-1	0.078*** (0.025)	0.060*** (0.023)	0.074*** (0.024)
ln (Industrial Employment)t-1	0.027 (0.066)	0.018 (0.062)	0.016 (0.062)
ln (Manufacturing VA/GDP) t-1	0.327*** (0.087)	0.311*** (0.086)	0.316*** (0.084)
Dependent variable: Severance pay after 4 years			
Regional trade flows			
RTAs*Importst-1	-0.202 (0.307)	-0.098 (0.313)	-0.155 (0.307)
Economic controls			
ln (GDP p.c.)t-1	-0.391 (0.650)	0.744 (0.669)	-0.096 (0.689)
(ln (GDP p.c.))2t-1	-0.007 (0.040)	-0.066* (0.038)	-0.02 (0.042)
ln (Industrial Employment)t-1	-0.173 (0.136)	-0.15 (0.105)	-0.163 (0.110)
ln (Manufacturing VA/GDP) t-1	0.549*** (0.200)	0.497** (0.205)	0.508** (0.198)
Dependent variable: Severance pay after 20 years			
Regional trade flows			
RTAs*Importst-1	-3.293** (1.524)	-2.665* (1.424)	-3.084** (1.442)
Economic controls			
ln (GDP p.c.)t-1	7.934** (3.205)	11.529*** (3.534)	8.971*** (3.116)
(ln (GDP p.c.))2t-1	-0.584*** (0.182)	-0.762*** (0.200)	-0.630*** (0.181)
ln (Industrial Employment)t-1	-1.347*** (0.463)	-1.138** (0.454)	-1.207*** (0.450)
ln (Manufacturing VA/GDP) t-1	0.112 (0.856)	-0.033 (0.795)	-0.009 (0.814)

Note: robust standard errors in parentheses. All regressions also include political controls, country dummies and time effects (full results in the Appendix).

* Statistical significance at the 10% level

** Statistical significance at the 5% level

*** Statistical significance at the 1% level

Table 6. Regional trade and gross replacement ratios

	(1) Fixed Effects	(2) Random Effects	(3) Random Effects
Dependent variable: Gross replacement ratio after 1 year			
Regional trade flows			
RTAs*Importst-1	-0.103*** (0.039)	-0.087** (0.037)	-0.087** (0.038)
Economic controls			
ln (GDP p.c.)t-1	-0.024 (0.105)	0.032 (0.097)	0.031 (0.104)
(ln (GDP p.c.))2t-1	0.003 (0.006)	0.003 (0.006)	0 (0.006)
ln (Industrial Employment)t-1	0.005 (0.010)	0.013 (0.011)	0.012 (0.012)
ln (Manufacturing VA/GDP) t-1	-0.042** (0.017)	-0.063** (0.017)	-0.052*** (0.017)
Dependent variable: Gross replacement ratio after 2 years			
Regional trade flows			
RTAs*Importst-1	-0.017 (0.026)	0.006 (0.026)	-0.012 (0.024)
Economic controls			
ln (GDP p.c.)t-1	0.238* (0.139)	0.146 (0.116)	0.235* (0.120)
(ln (GDP p.c.))2t-1	-0.012 (0.007)	-0.005 (0.007)	-0.012* (0.007)
ln (Industrial Employment)t-1	0.008 (0.007)	0.009 (0.007)	0.011 (0.008)
ln (Manufacturing VA/GDP) t-1	-0.051*** (0.015)	-0.061*** (0.014)	-0.058*** (0.014)

Note: robust standard errors in parentheses. All regressions also include political controls, country dummies and time effects (full results in the Appendix).

* Statistical significance at the 10% level

** Statistical significance at the 5% level

*** Statistical significance at the 1% level

In the following, we will focus on the three variables for which we found significant results in our first set of regressions: notice period after nine month of services, severance pay after 20 years of services and gross replacement ratios after 1 year of service.

In order to examine whether regional trade has a different effect on low, middle or high income countries, we split the original RTA dummy into three elements: one that takes positive values for high income countries being member to an RTA, one that takes a positive value for middle income countries member to an RTA and one reflecting low income countries.

The results illustrated in the table below are quite striking: the GDP per capita variables now become insignificant. The RTA dummy is highly significant, but only for high income countries. The sign is always negative and parameter size has increased significantly. Regional trade thus appears to be strongly correlated with shorter notice periods, lower severance pay and lower gross replacement ratios in high income countries. For middle income countries, the RTA variable is only significant for the notice period variable and its sign is positive, i.e. regional trade is correlated to higher labour protection in middle income countries. For low income countries, instead, we do not find a relationship between regional trade and labour market regulation. In conjunction with the finding that the GDP per capita variables become insignificant, this could indicate the existence of a regulatory chilling effect, i.e. low income countries do not increase labour protection even if they grow.

Table 7. Regional trade and labour domestic market regulation, by income group

Dependent variable:	(1) Notice period after 9 months	(2) Severance pay after 20 years	(3) Gross replacement ratio after 1 year
Random Effects			
Regional trade flows			
RTAs*Importst-1*High Inc.	-1.287*** (0.250)	-9.652*** (1.989)	-0.184*** (0.047)
RTAs*Importst-1*Middle Inc.	0.417** (0.170)	2.534 (1.990)	-0.001 (0.046)
RTAs*Importst-1*Low Inc.	-0.357 (0.444)	-2.444 (3.108)	-0.028 (0.085)
Economic controls			
ln (GDP p.c.)t-1	0.663 (0.480)	2.268 (2.906)	-0.103 (0.108)
(ln (GDP p.c.))2t-1	-0.024 (0.025)	-0.24 (0.169)	0.008 (0.006)
ln (Industrial Employ.)t-1	0.026 (0.055)	-1.623*** (0.465)	0.005 (0.012)
ln (Manufact. VA/GDP)t-1	0.156** (0.071)	0.195 (0.819)	-0.047*** (0.017)
Constant	-3.155 (2.361)	-2.619 (14.644)	0.633 (0.497)
Observations	968	968	952
Number of id	74	74	73

Note: robust standard errors in parentheses. All regressions also include time effects, political controls, country dummies and regional dummies.

* Statistical significance at the 10% level

** Statistical significance at the 5% level

*** Statistical significance at the 1% level

The race-to-the-bottom argument is often used in conjunction with the phenomenon of North-South trade, the idea being that trade with countries having lower labour standards puts the high labour standard country under pressure to reduce its own standards. To check whether it is indeed the case that the above findings are driven by North-South trade, we split our RTA dummies into further subgroups. In particular, we are interested in finding out which type of RTAs drive the negative coefficients for high income countries reported in the table above.

The findings reported in Table 8 below do not support the idea that weakening of labour market regulations in industrialized countries is driven by trade with low income countries. On the contrary: the only type of RTAs for which we consistently find highly significant negative coefficients are RTAs among high income countries. According to the findings reported below, it is competition among countries of a similar level of income that appears to put the highest pressure on labour market regulation in the rich world. These findings are in line with findings in Fischer and Somogyi (2009) and Olney (2011).

Table 8. Regional trade and labour market regulation by income group combinations

Dependent variable:	Notice period after 9 months			Severance pay after 20 years			Gross replacement ratio after 1 year		
	(1) FE	(2) RE	(3) RE	(4) FE	(5) RE	(6) RE	(7) FE	(8) RE	(9) RE
Regional trade flows									
RTAs*Imp t-1*H-H	-1.458*** (0.301)	-1.401*** (0.267)	-1.451*** (0.284)	-7.247*** (2.056)	-6.734*** (1.892)	-6.993*** (1.920)	-0.279*** (0.062)	0.193*** (0.057)	-0.249*** (0.061)
RTAs*Imp t-1*H-L	27.228* (15.144)	-21.598 (14.132)	-25.517* (14.481)	390.770*** (126.928)	322.675*** (118.189)	341.194*** (119.785)	-14.137*** (41.67)	-13.928*** (4.009)	-14.227*** (4.039)
RTAs*Imp t-1*H-M	2.775 (1.814)	1.697 (1.654)	2.435 (1.708)	-59.930*** (16.207)	-48.908*** (15.115)	-52.142*** (15.290)	1.393*** (0.517)	1.081** (0.484)	1.309*** (0.508)
RTAs*Imp t-1*L-H	-33.838*** (7.069)	-2.072 (3.535)	-3.729 (4.086)	-305.658*** (64.457)	-63.088* (38.289)	-80.681** (33.387)	0.263 (1.140)	-1.438*** (0.524)	0.196 (0.546)
RTAs*Imp t-1*L-L	-0.490*** (0.169)	-0.242 (0.224)	-0.392** (0.170)	2.597* (1.500)	-0.967 (2.520)	-0.718 (3.474)	0.047 (0.038)	-0.032 (0.067)	-0.009 (0.045)
RTAs*Imp t-1*L-M	4.185*** (0.760)	2.091* (1.169)	0.855 (1.842)	5.076 (6.552)	-12.65 (10.824)	-8.707 (9.747)	-0.820*** (0.155)	-0.297 (0.221)	-0.321 (0.230)
RTAs*Imp t-1*M-H	0.051 (0.235)	0.04 (0.219)	0.045 (0.220)	3.151 (3.085)	2.858 (3.182)	3.717 (3.130)	0.128 (0.085)	0.092 (0.078)	0.099 (0.080)
RTAs*Imp t-1*M-L	6.957* (4.208)	6.311 (3.884)	5.988* (3.560)	63.939*** (19.289)	46.246** (21.257)	56.389*** (17.489)	0.028 (0.350)	-0.141 (0.435)	-0.159 (0.468)
RTAs*Imp t-1*M-M	0.870* (0.487)	0.960* (0.495)	1.162** (0.564)	-7.883 (5.095)	-1.442 (5.219)	-7.335 (4.673)	-0.283** (0.124)	-0.274** (0.126)	-0.188 (0.119)
Economic controls									
ln (GDP p.c.)t-1	1.285** (0.591)	0.538 (0.464)	0.912* (0.534)	0.056 (3.329)	3.224 (3.682)	1.722 (3.390)	-0.012 (0.127)	0.012 (0.112)	0.018 (0.128)
(ln (GDP p.c.))2t-1	-0.058* (0.032)	-0.017 (0.026)	-0.038 (0.029)	-0.117 (0.209)	-0.266 (0.215)	-0.191 (0.209)	0.002 (0.007)	0.004 (0.007)	0.001 (0.007)
ln (Ind. Employ.)t-1	0.009 (0.053)	-0.002 (0.052)	-0.009 (0.054)	-2.121*** (0.509)	-1.700*** (0.494)	-1.690*** (0.475)	-0.006 (0.010)	0.01 (0.011)	0.007 (0.011)
ln (Manufact. VA/GDP) t-1	0.159** (0.071)	0.166** (0.068)	0.156** (0.071)	0.073 (0.867)	-0.143 (0.813)	-0.19 (0.824)	-0.042** (0.017)	-0.060*** (0.017)	-0.051*** (0.017)
Country dummies	No	No	Yes	No	No	Yes	No	No	Yes
Constant	-5.941** (2.817)	-2.534 (2.137)	-4.301* (2.578)	13.931 (15.137)	-3.827 (16.451)	-1.437 (15.536)	0.081 (0.544)	-0.259 (0.480)	0.121 (0.564)
Observations	968	968	968	968	968	968	952	952	952
R-squared	0.214			0.265			0.12		
Number of id	74	74	74	74	74	74	73	73	73

Note: robust standard errors in parentheses. Political controls, time effects, country dummies and regional dummies are included.

* Statistical significance at the 10% level

** Statistical significance at the 5% level

*** Statistical significance at the 1% level

5. Institutional framework: Do references to labour standards in RTAs influence domestic regulation?

The last two sections looked at the economics of labour standard references in RTAs. We have found that there is indeed evidence of lowering of labour protection within regional trade areas, but only in high income countries. Besides, such standard lowering appears to take place mainly in the context of RTAs between rich countries. In middle-income countries, instead, regional trade is positively or not at all correlated with labour protection. In the case of low income countries we did not find any evidence for a lowering of labour protection related to RTA trade, but our findings could be interpreted as evidence for a regulatory chilling effect.

Unfortunately data limitations do not allow us to examine whether the inclusion of labour market provisions in RTAs has had a direct influence on the relationship between regional trade and domestic labour market regulation. Our analysis, however, indicates that inclusion of references to domestic labour market regulation can be justified on economic grounds. Interestingly, though, on the basis of our analysis we would expect that commitments not to lower existing domestic standards ('type 2' references in Section 2) are most likely to become relevant for high income countries in particular in the context of RTAs among high income countries. Commitments to strive to improve domestic standards ('type 1' references) would, instead, mostly be relevant for low income – rather than middle income – countries that are members of an RTA. Finally, given that our measure for labour protection is based on legal texts and not on their actual implementation, our econometric work does not allow for robust conclusions concerning 'type 3' references in RTAs to simply apply existing domestic labour standards.

We now turn to the question which RTA commitments relating to domestic labour standards might be the most effective ones to avoid the observed weakening (or non-improvement, or non-observance) of such standards. In other words, what is the relative value of these provisions?

Our starting point is a recognition that the ultimate value test for labour references lies to a large extent in treaty implementation³⁷. We therefore look at how different implementation issues are being dealt with in selected RTAs – besides the various cooperation mechanisms also described in Section 2.

We first recall from our earlier findings that a prominent provision in many treaties is a commitment by each trading partner to “strive to ensure” higher standards ('type 1' reference)³⁸. We find that this does not in itself ensure positive action. However, when we compare US and EU treaties on a timeline we find that even the comparatively older US treaties involving labour provisions are formulated more stringently than the ones concluded later on by the EU³⁹.

Provisions enjoining all parties not to lower existing domestic standards ('type 2') are mostly found in relatively recent treaties, whereas the older ones usually refer to core

³⁷ See also Horn, Mavroidis and Sapir (2010) for a discussion of the enforceability of labour provisions in EU and US preferential trade agreements.

³⁸ Perhaps a trifle optimistic, Elliott suggests that, in view of the large adherence in Latin America to core labour standards, such a provision “would approximate a commitment to international standards for most of the region [...] [despite the fact that the US itself is] “the clear outlier on ratification, if not on compliance with the broad principles embodied in the standards” (Elliott, 2004, p. 658).

³⁹ It might be worth noting that, looking at the various efforts and mixed results achieved by the US in the past decades, Aaronson (2005) considers it a “laggard” (p. 178) in a perspective of global Corporate Social Responsibility (CSR). According to the author, it is important that American firms “uphold such [American] values as they produce goods and services abroad, [When firms act irresponsibly] America’s foreign policy interests can be compromised” (p. 175).

labour standards and cooperation programmes. The impact of the newer treaties on domestic labour regulation remains thus to be seen.

RTAs also increasingly contain provisions foreseeing commitments by all Parties to enforce their own domestic labour legislation ('type 3' references). In this context the priorities of developing countries are on economic development and on the primacy of domestic standards over international ones; they agree, for example, that 'economic development must be accompanied by social progress' (EC – South Africa RTA, see Section 2).

When we now look at the implementation value of these different types of provisions we have to acknowledge that, on the face of it, quite a few of these treaties contain relatively weak commitments. Many RTAs among developing countries do not contain any references. Even the most substantive provisions merely enjoin the parties to 'strive to ensure' adherence to domestic standards, or they commit them to undefined standard improvements (parties 'shall ensure' that their labour legislation provides for high levels of labour standards). 'Type 3' looks even more innocuous: to apply one's own legislation. In other words, even the relatively stringent formulations found in the NAFTA/NAALC look like just a commitment to apply one's own laws – this might well be because the United States as the main driver has not even ratified the relevant international norms. Moreover, on the question of enforcement the NAALC makes it very clear that '[n]othing in this Agreement shall be construed to empower a Party's authorities to undertake labor law enforcement activities in the territory of another Party'.⁴⁰

Nonetheless, our assumption is that even a pledge to just apply domestic standards can be important when it comes to implementation, because many (developing) countries do have high levels of labour standards but find it difficult to enforce them at the national level or through the traditional ILO mechanisms – perhaps especially with more open borders.

For instance, most countries prohibit child labour at least in its worst forms, but not all are successfully enforcing their own legislation. In these circumstances and depending on implementation provisions, therefore, references in RTAs could bring about improvements simply by helping to ensure adherence to existing domestic legislation.

If we further compare US and EU treaties we find that the former have relatively stronger formulations aiming at adherence to labour standards, but do not automatically ensure such adherence in a more effective way. As in other politically sensitive areas and on a more conjectural level the size of the trading partner might also have a certain bearing on the normative value of labour provisions in RTAs.

It could be argued that a RTA would hardly be a good forum to negotiate new labour standards, even more so since the competent authorities for labour issues are not the lead agencies in a RTA. To aim at effectively preventing a 'race to the bottom' thus seems to be a more realistic objective for a trade agreement than to play an active role in social policy improvements.

Might there also be a regulatory race between the EU and the US as the main drivers of the trade and labour agenda? Our assumption is that both seem to be aware that their RTAs fall somewhat short of their own expectations. Also noteworthy is the fact that on both sides of the Atlantic the calls for more stringent provisions come from the legislative bodies rather than from the executives.

⁴⁰ Part Six, General Provisions Article 42.

In 2007 the European Parliament commissioned a study on the enforcement performance of social and environmental norms in RTAs concluded by the EU. In their analysis of the respective effectiveness of their social and environmental norms, Bourgeois et al. (2007) compare these RTAs with those of the US. They conclude that despite the comparatively higher stringency of the US agreements, the actual outcomes of the two approaches are not very different. Nonetheless, for future RTAs of the EU, including for the EU-MERCOSUR FTA still under negotiation, the authors generally recommend to follow the more stringent formulations in the US treaties and to expand the effective sanctions foreseen in the EU treaties. For the question of labour standards they also submit a template text inspired by the NAALC side agreement and which takes the latter's implementation experience into account. According to that text, all labour provisions would be enforceable and subject to mediation and regular dispute settlement under a (separate) supervisory body. Furthermore, specific provisions in respect of labour standards would allow independent investigation and monitoring as well as public participation concerning the initiation of reviews of violations. The authors also recommend that "sanctions should be foreseen, although the choice between imposing trade measures and fines needs further assessment".⁴¹

The debate in the United States is evolving even more rapidly. In a 2009 report of the US Government Accountability Office (GAO) the view is expressed that environmental and labour provisions in four examined RTAs (with Jordan, Singapore, Chile, and Morocco) fail to satisfy the concerns of US lawmakers in respect of their impact on domestic labour standards. Demands for further changes by US policymakers come as a surprise to nobody. As we have already noted, labour issues are among the reasons why the three most recent RTAs with Korea, Columbia and Panama have so far failed to find acceptance in the US Congress. Clearly, the search for a level-playing field, as seen by US lawmakers but which can also find acceptance in partner countries, is far from being over.

In the remainder of our impact analysis we focus on three implementation aspects: public participation, dispute settlement procedures, and sanctions.

⁴¹ See Scherrer et al. (2009) for similar findings and recommendations.

Public participation

When looking at other RTAs in force we see perhaps the highest normative value as a contribution to effective labour standards in the public participation opportunities established in agreements such as NAALC. Indeed, numerous advocacy groups are today capable of using precisely such transparency tools for the purpose of ensuring adherence to domestic legislation in their own countries. For this reason we do not necessarily agree with the Canadian Association of Labour Lawyers (CALL) which has argued that

“workers and unions that are the victims of governmental failure to enact and enforce labour laws protecting freedom of association, in the face of free trade and economic integration, have virtually no recourse under the NAALC other than to make submissions to the [National Administrative Office] NAO of a signatory government which can only recommend ministerial consultations with the offending signatory government.”⁴²

The NAALC is administered by a ‘Commission for Labor Cooperation’ with its own ministerial Council and a Secretariat. It foresees public participation for “persons with a legally recognized interest under its law in a particular matter” (Art.4.1). The parties have an obligation to provide for a (qualified) access to tribunals for such persons:

“Each Party’s law shall ensure that such persons may have recourse to, as appropriate, procedures by which rights arising under:

1. its labor law, including in respect of occupational safety and health, employment standards, industrial relations and migrant workers, and
2. collective agreements, can be enforced.” (Art.4.2)

There are two types of procedures: ‘citizen submissions’ i.e. the possibility of submissions by NGOs or other persons claiming that a party is not effectively enforcing its domestic laws, and a mechanism of intergovernmental enforcement. However, submissions relating to the labour agreement are lodged with the concerned ‘National Administrative Office’ established by the NAALC, and this ‘NAO’ is under no obligation to take the matter any further. While consultations may be held for all NAFTA matters, formal dispute settlement is only available in cases of a trade-related failure to enforce social legislation, and when that failure represents a ‘persistent pattern’ of behaviour.⁴³

EU RTAs have so far not included formal and elaborate procedures for a joint mechanism on public participation for labour issues, even though implementation of commitments in the EU – CARIFORUM RTA appears to be somewhat inspired by the NAALC. As we have seen in Section 2, Article 192 recognises the right of the CARICOM States “to regulate in order to establish their own social regulations and labour standards in line with their own social development priorities” – but it also obliges them to “provide for and encourage high levels of social and labour standards” and to “strive to” continue to improve those laws and policies⁴⁴. However, implementation follows different avenues: (a) consultations, including with the ILO acting as an intermediary⁴⁵ (b) measures to combat child labour under the general exceptions clause in Article 224 used to protect public

⁴² See the Public Comments made in the context of the Four Year Review, published by the Secretariat of the Commission on Labor Cooperation, available at <http://new.naalc.org/index.cfm?page=255> (accessed 30 April 2011)

⁴³ Bartels (2009), p. 355.

⁴⁴ Art. 192 in fine.

⁴⁵ Art. 195/3: “On any issue covered by Articles 191 to 194 the Parties may agree to seek advice from the ILO on best practice, the use of effective policy tools for addressing trade-related social challenges, such as labour market adjustment, and the identification of any obstacles that may prevent the effective implementation of core labour standards.”

security and public morals⁴⁶ and (c) through dispute settlement. It is too early to assess the impact of this treaty which was only provisionally applied as from 29 December 2008⁴⁷.

Dispute settlement procedures

This brings us to dispute settlement. At the outset it should be recognised that social and in particular labour policies are among the most sensitive issues in any country and society. Nevertheless, we find that quite a few RTAs other than the NAALC have dispute settlement provisions potentially applicable to labour-related disputes.

The most stringent example of an RTA providing for both trade and financial sanctions in case of infringements is the already discussed NAALC. At the same time and as we have seen above, in the eyes of the Canadian Association of Labour Lawyers even this treaty is ‘seriously flawed’ and has failed to deliver expected results. While the draft US – Peru FTA foresees ‘Cooperative Labor Consultations’ in Article 17.7, a complaining party may defer the matter to dispute settlement procedures under Chapter 21, i.e. only if formal consultations under Article 21.4 or the meetings held in the ambit of the ‘Labor Affairs Council’ under Article 17.5.2 have failed to result in a satisfactory solution:

(Art.17.7.6) “If the consulting Parties have failed to resolve the matter within 60 days of a request under paragraph 1, the complaining Party may request consultations under Article 21.4 (Consultations) or a meeting of the Commission under Article 21.5 (Intervention of the Commission) and, as provided in Chapter Twenty-One (Dispute Settlement), thereafter have recourse to the other provisions of that Chapter. The Council may inform the Commission of how the Council has endeavored to resolve the matter through consultations.”

In most other agreements already in force there seem to be few if any formal dispute settlement cases in case of disagreements over labour standards in the framework of a trade agreement. Available literature has not provided us with evidence of litigation being used as an avenue for strengthening labour standards or avoiding a ‘race to the bottom’. This may be partly due to the relatively recent nature of these RTAs. Other reasons might be the multiple limitations and qualifications for rights and intervention possibilities of trading partners. Moreover, the need for a complainant to prove a negative trade impact of a labour standard modification is likely to be difficult. It might be worth noting in this context that NAALC in Article 30.2 provides that ‘Roster members shall have expertise or experience in labor law or its enforcement, or in the resolution of disputes arising under international agreements, or other relevant scientific, technical or professional expertise or experience’, including when it comes to formal litigation under NAFTA⁴⁸.

Like many others, the EC – CARIFORUM agreement does not exclude recourse to dispute settlement. For all social aspects including labour issues, Article 195 (‘Consultation and monitoring process’) provides in paragraph 5 that if ‘the matter has not been satisfactorily resolved through consultations between the Parties pursuant to paragraph 3 any Party may request that a Committee of Experts be convened to examine such matter’. Under Part III (‘Dispute avoidance’) a conflict on social aspects may only be referred to formal dispute settlement if the above-mentioned consultation procedures fail to produce a mutually acceptable solution after 9 months (Art.204.6). In such a case the complaint will go straight to mediation (Art.205) or arbitration (Art.206ss). As pointed out for the NAALC, at least two members of the arbitration panel shall have specific expertise in the field (Art.207.4).

Some agreements especially between developing countries either implicitly exclude labour matters from formal dispute settlement, or they do so by recognising the primacy of

⁴⁶ Footnote (1) in Art.195/1.

⁴⁷ Official Journal of the European Union (L 352/62) 31.12.2008.

⁴⁸ See NAFTA Article 2009.2.a with a more general wording.

national standards. Others establish special consultative mechanisms with a view to avoiding formal litigation. To the extent that they contain certain limited commitments on labour, most agreements, however, do not establish formal litigation procedures, if only as a matter of last resort.

Sanctions: Preference withdrawals and fines

Finally we turn to the even more delicate question of sanctions. Ultimately, and depending on the wording in the agreement, there are two possible forms of consequences in cases of (established) infringements of RTA obligations in the field of labour. Based on the idea that such infringements also constitute a change in the economic parameters underlying the agreement, the other party (or parties) may (a) withdraw certain concessions under the RTA and/or (b) apply a 'fine' to the trade partner having violated its own labour regulation, for the duration of the violation. Needless to say both forms of compensation or retaliation are highly sensitive and controversial from a political viewpoint.

Here we note that among all the WTO-notified RTAs in force, the NAFTA/NAALC is the only RTA foreseeing retaliation measures by way of a 'suspension of concessions' (i.e. withdrawal of preferential tariffs)⁴⁹ as well as through 'monetary enforcement',⁵⁰. Except for the standard safeguard provisions ('emergency actions') and/or a reference to the antidumping and countervailing measures in the WTO agreement, the other agreements are either silent or do not describe the avenues open for cases of infringements specifically on the labour clauses⁵¹.

⁴⁹ See Article 2019 (Non-Implementation-Suspension of Benefits).

1. If in its final report a panel has determined that a measure is inconsistent with the obligations of this Agreement or causes nullification or impairment in the sense of Annex 2004 and the Party complained against has not reached agreement with any complaining Party on a mutually satisfactory resolution pursuant to Article 2018(1) within 30 days of receiving the final report, such complaining Party may suspend the application to the Party complained against of benefits of equivalent effect until such time as they have reached agreement on a resolution of the dispute.

2. In considering what benefits to suspend pursuant to paragraph 1:

(a) a complaining Party should first seek to suspend benefits in the same sector or sectors as that affected by the measure or other matter that the panel has found to be inconsistent with the obligations of this Agreement or to have caused nullification or impairment in the sense of Annex 2004; and

(b) a complaining Party that considers it is not practicable or effective to suspend benefits in the same sector or sectors may suspend benefits in other sectors.

3. On the written request of any disputing Party delivered to the other Parties and its Section of the Secretariat, the Commission shall establish a panel to determine whether the level of benefits suspended by a Party pursuant to paragraph 1 is manifestly excessive.

4. The panel proceedings shall be conducted in accordance with the Model Rules of Procedure. The panel shall present its determination within 60 days after the last panelist is selected or such other period as the disputing Parties may agree.

⁵⁰ Annex 39.3 (see below).

⁵¹ The FTAs recently concluded between the United States, Colombia, Korea and Panama contain detailed chapters on labour, including a so-called 'labor cooperation mechanism' (see Section 2). All three texts on labour remain silent on the application of specific sanctions in cases of violations.

The NAALC foresees two in-built limitations for both ‘suspensions’ of trade concessions, and for ‘monetary sanctions’:

1. Any suspension of benefits must be no greater than the amount sufficient to collect the ‘monetary enforcement assessment’ imposed under Article 39.4 by an arbitral panel (Art.41 NAALC); and
2. all ‘monetary enforcement assessments’ (no greater than .007 per cent of total trade in goods between the Parties) would be reinvested in technical co-operation activities⁵².

Many facets in the relationship between labour standards and trade agreements can only be outlined here. They would require extensive empirical research and case law information. For the time being, quite a few questions remain. For instance, what happens if domestic labour standards are waived for a specific FDI project, or for exports to a third party? Are the commitments by one country under different RTAs just a problem of coherence, or a possible source of conflicts making manufacturers subject to different labour standards for different export markets?

⁵² (Annex 39.3) “All monetary enforcement assessments shall be paid in the currency of the Party complained against into a fund established in the name of the Commission by the Council and shall be expended at the direction of the Council to improve or enhance the labor law enforcement in the Party complained against, consistent with its law.”

6. Conclusions

This discussion has shown that an increasing number of RTAs contain labour provisions making reference to domestic labour standards. Those provisions appear in addition or in lieu of references to international labour standards, like references to the ILO Fundamental Principles and Rights at Work. We have distinguished three types of references: (i) commitments to strive to improve domestic standards (ii) commitments not to lower existing domestic standards (iii) commitments to actually implement existing domestic standards.

In the econometric work presented in this paper we asked the question whether type-1 or type-2 references to domestic labour provisions can be justified on economic grounds. We do this by testing whether regional trade is systematically associated with a lowering of domestic labour standards or with a regulatory chilling effect. We have found that countries with a higher share of trade within RTAs are characterized by lower levels of labour protection, but that this is only the case for high income countries. Besides, it is regional trade among rich countries that appears to be an important driver behind this finding. In middle-income countries, instead, trade is positively or not at all correlated with labour protection. In the case of low income countries we did not find any evidence for a lowering of labour protection, but our findings could be interpreted as evidence for a regulatory chilling effect. This leads to the question on the enforceability of existing provisions. In particular, the question arises whether 'commitments not to lower existing standards' are enforceable if the country lowering its standards is a high income country. It also raises the question whether 'commitments to strive to achieve higher standards' can be enforced in the case of low income countries.

If labour provisions are included in RTAs to impede that increased regional trade leads to 'regulatory chilling' or 'race to the bottom' effects, then the wording of type 1 and type 2 references mentioned above, rather literally reflects such objectives. Our analysis, however, suggests that on the basis of the current design of regional trade agreements, such provisions are unlikely to have a bite. Among the WTO-notified RTAs in force, only the North American Agreement on Labor Cooperation, a NAFTA-side agreement, allows the use of dispute settlement procedures and even of certain (limited) sanctions related to infringements of specific labour provisions. The NAALC contains references to commitments to strive to improve domestic labour standards but no binding commitments not to lower existing domestic standards. The NAALC and the more recent US treaties as well as the recent EU-CARIFORUM Agreement also contain procedures that provide for public participation related to issues of labour law enforcement.

The findings in our paper suggest that further analysis on actual use, and in particular on the enforceability of RTA provisions related to domestic labour market regulation may be a worthwhile investment. We see in the procedures related to public participation opportunities for ensuring adherence to or even improving labour standards. The challenges are multiple, ranging from the difficulties to prove that a lowering of domestic labour standards has occurred as a result of a RTA to evaluating the effect of such policy changes on trade flows. Ongoing work in international institutions and academia on measuring the trade effects of non-tariff barriers could be very instructive for overcoming the latter challenge.

Appendices

Table A1. Country coverage of data set

High income	Middle income	Low Income	
Australia	Albania	Jamaica	Bangladesh
Austria	Algeria	Jordan	Burkina Faso
Belgium	Argentina	Kazakhstan	Cameroon
Canada	Azerbaijan	Latvia	Cote d'Ivoire
Denmark	Belarus	Lithuania	Ethiopia
Finland	Bolivia	Malaysia	Ghana
France	Brazil	Mexico	India
Germany	Bulgaria	Morocco	Kenya
Greece	Chile	Paraguay	Kyrgyz Republic
Israel	China	Peru	Madagascar
Italy	Colombia	Philippines	Mozambique
Korea, Rep.	Costa Rica	Poland	Nepal
Netherlands	Czech Republic	Russian Federation	Nicaragua
New Zealand	Dominican Republic	South Africa	Nigeria
Norway	Egypt	Sri Lanka	Pakistan
Portugal	El Salvador	Thailand	Senegal
Singapore	Estonia	Tunisia	Tanzania
Spain	Georgia	Turkey	Uganda
Sweden	Guatemala	Ukraine	Uzbekistan
Switzerland	Hungary	Uruguay	Vietnam
United Kingdom	Indonesia	Venezuela	Zimbabwe
United States			

Table A2. Mean and standard deviation decomposition for the dependent variables

Variable		Mean	Std. Dev.	Min	Max	Observations
Notice period after 9 months	overall	0.872	0.698	0.000	3.000	N = 968
	between		0.649	0.000	3.000	n = 74
	within		0.233	-0.328	2.586	T-bar = 13.08
Notice period after 4 years	overall	1.117	0.756	0.000	3.000	N = 968
	between		0.712	0.000	3.000	n = 74
	within		0.235	-0.150	2.831	T-bar = 13.08
Notice period after 20 years	overall	1.883	1.725	0.000	9.367	N = 968
	between		1.756	0.000	9.367	n = 74
	within		0.315	-0.439	4.454	T-bar = 13.08
Severance pay after 9 months	overall	0.500	0.725	0.000	3.500	N = 968
	between		0.752	0.000	3.000	n = 74
	within		0.209	-0.423	2.577	T-bar = 13.08
Severance pay after 4 years	overall	2.183	2.215	0.000	16.000	N = 968
	between		2.032	0.000	11.692	n = 74
	within		0.508	-1.509	6.491	T-bar = 13.08
Severance pay after 20 years	overall	8.387	9.654	0.000	46.833	N = 968
	between		8.619	0.000	44.933	n = 74
	within		2.519	-3.041	25.054	T-bar = 13.08
Gross replacement ratio after 1 year	overall	0.209	0.226	0.000	0.780	N = 952
	between		0.216	0.000	0.709	n = 73
	within		0.065	-0.056	0.534	T-bar = 13.04
Gross replacement ratio after 2 years	overall	0.084	0.166	0.000	0.660	N = 952
	between		0.150	0.000	0.555	n = 73
	within		0.044	-0.062	0.366	T-bar = 13.04

Table A3. Data Sources

Variable	Source
Notice period	FRDB Database on Structural Reform
Severance pay	FRDB Database on Structural Reform
Unemployment benefit	FRDB Database on Structural Reform
Real GDP per capita	World Development Indicators
RTA	World Trade Organization
Trade (export and import)	United Nations Comtrade
Employment in industry (% of total employment)	World Development Indicators
Manufacturing valued-added (% GDP)	World Development Indicators
Political rights index on a 1-to-7 scale, with 1 = highest degree and 7 = lowest	Freedom House
Civil liberties index on a 1-to-7 scale, with 1 = highest degree and 7 = lowest	Freedom House
Chief Executive Years in Office	Database of Political Institutions 2009, Philip Keefer, World Bank
Combined Polity Score of democracy(Polity IV)	Integrated Network for Societal Conflict Research

Table A4. Regional trade and notice period after 9 months

	Dependent variable: Notice period after 9 months		
	(1) Fixed Effects	(2) Random Effects	(3) Random Effects
Regional trade flows			
RTAs*Importst-1	-0.404*** (0.155)	-0.367** (0.147)	-0.375** (0.149)
Economic controls			
ln (GDP p.c.)t-1	1.719*** (0.559)	1.361*** (0.472)	1.578*** (0.512)
(ln (GDP p.c.))2t-1	-0.084*** (0.029)	-0.070*** (0.026)	-0.078*** (0.027)
ln (Industrial Employment)t-1	0.097* (0.051)	0.073 (0.050)	0.081 (0.052)
ln (Manufacturing VA/GDP) t-1	0.121 (0.074)	0.144*** (0.071)	0.130* (0.075)
Political controls			
Political Rightst-1	0.043** (0.018)	0.043** (0.018)	0.041** (0.018)
Civil Rights t-1	0.078*** (0.020)	0.074*** (0.019)	0.076*** (0.020)
Years of Officet-1	-0.001 (0.002)	0 (0.002)	-0.001 (0.002)
Democracyt-1	0.017*** (0.005)	0.018*** (0.005)	0.018*** (0.005)
Country dummies			
Africa			-0.419 (0.316)
Asia			-0.197 (0.359)
North America			-0.831*** (0.294)
South America			-0.360* (0.212)
Middle East			-0.379 (0.499)
Western Europe			0.129 (0.366)
Scandinavian Countries			0.648 (0.704)
Former Soviet Union			0.284 (0.252)

	Dependent variable: Notice period after 9 months		
	(1) Fixed Effects	(2) Random Effects	(3) Random Effects
Middle Income			0.292 (0.304)
Low Income			0.987*** (0.355)
Constant	-7.809*** (2.710)	-5.727*** (2.206)	-7.206*** (2.522)
Observations	968	968	968
R-squared	0.14		
Number of id	74	74	74

Note: robust standard errors in parentheses. Time effects included.

* Statistical significance at the 10% level

** Statistical significance at the 5% level

*** Statistical significance at the 1% level

Table A5. Regional trade and notice periods after 4 years

Dependent variable: Notice period after 4 years			
	(1) Fixed Effects	(2) Random Effects	(3) Random Effects
Regional trade flows			
RTAs*Importst-1	-0.111 (0.136)	-0.071 (0.132)	-0.079 (0.132)
Economic controls			
ln (GDP p.c.)t-1	1.797*** (0.556)	1.550*** (0.483)	1.726*** (0.515)
(ln (GDP p.c.))2t-1	-0.095*** (0.029)	-0.082*** (0.026)	-0.091*** (0.027)
ln (Industrial Employment)t-1	0.048 (0.052)	0.033 (0.049)	0.034 (0.052)
ln (Manufacturing VA/GDP) t-1	0.133* (0.076)	0.135* (0.073)	0.134* (0.077)
Political controls			
Political Rightst-1	0.031* (0.018)	0.029 (0.018)	0.028 (0.019)
Civil Rights t-1	0.084*** (0.020)	0.083*** (0.020)	0.085*** (0.020)
Years of Officet-1	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)
Democracyt-1	0.011** (0.005)	0.012** (0.005)	0.012** (0.005)
Country dummies			
Africa			-0.605* (0.339)
Asia			-0.584 (0.375)
North America			-1.111*** (0.312)
South America			-0.665** (0.259)
Middle East			-0.746 (0.500)
Western Europe			-0.044 (0.377)
Scandinavian Countries			0.652 (0.549)
Former Soviet Union			-0.263 (0.261)

Dependent variable: Notice period after 4 years			
	(1) Fixed Effects	(2) Random Effects	(3) Random Effects
Middle Income			0.167 (0.316)
Low Income			0.665* (3.376)
Constant	-7.526*** (2.693)	-6.379*** (2.263)	-6.985*** (2.535)
Observations	968	968	968
R-squared	0.155		
Number of id	74	74	74

Note: robust standard errors in parentheses. Time effects included.

* Statistical significance at the 10% level

** Statistical significance at the 5% level

*** Statistical significance at the 1% level

Table A6. Regional trade and notice periods after 20 years

	Dependent variable: Notice period after 20 years		
	(1) Fixed Effects	(2) Random Effects	(3) Random Effects
Regional trade flows			
RTAs*Importst-1	0.122 (0.144)	0.195 (0.145)	0.131 (0.142)
Economic controls			
ln (GDP p.c.)t-1	2.453*** (0.635)	2.253*** (0.590)	2.423*** (0.604)
(ln (GDP p.c.))2t-1	-0.138*** (0.035)	-0.118*** (0.033)	-0.136*** (0.033)
ln (Industrial Employment)t-1	-0.004 (0.060)	-0.001 (0.057)	-0.013 (0.059)
ln (Manufacturing VA/GDP) t-1	0.155 (0.097)	0.117 (0.094)	0.15 (0.096)
Political controls			
Political Rightst-1	0.028 (0.023)	0.027 (0.022)	0.026 (0.023)
Civil Rights t-1	0.094*** (0.025)	0.096*** (0.025)	0.096*** (0.025)
Years of Officet-1	0.002 (0.003)	0.002 (0.003)	0.002 (0.003)
Democracyt-1	0.010* (0.006)	0.012** (0.006)	0.011* (0.006)
Country dummies			
Africa			-0.721 (0.514)
Asia			-1.062* (0.565)
North America			-1.262*** (0.470)
South America			-0.768* (0.449)
Middle East			-1.227 (0.988)
Western Europe			1.909** (0.765)
Scandinavian Countries			2.697*** (0.828)
Former Soviet Union			-0.643* (0.368)

	Dependent variable: Notice period after 20 years		
	(1) Fixed Effects	(2) Random Effects	(3) Random Effects
Middle Income			-0.238 (0.493)
Low Income			0.212 (0.535)
Constant	-9.299*** (2.984)	-9.202*** (2.708)	-8.969*** (2.863)
Observations	968	968	968
R-squared	0.116		
Number of id	74	74	74

Note: robust standard errors in parentheses. Time effects included.

* Statistical significance at the 10% level

** Statistical significance at the 5% level

*** Statistical significance at the 1% level

Table A7. Regional trade and severance pay after 9 months

	Dependent variable: Severance pay after 9 months		
	(1) Fixed Effects	(2) Random Effects	(3) Random Effects
Regional trade flows			
RTAs*Importst-1	0.007 (0.102)	0.032 (0.107)	0.031 (0.106)
Economic controls			
ln (GDP p.c.)t-1	-1.404*** (0.435)	-1.092*** (0.406)	-1.317*** (0.433)
(ln (GDP p.c.))2t-1	0.078*** (0.025)	0.060*** (0.023)	0.074*** (0.024)
ln (Industrial Employment)t-1	0.027 (0.066)	0.018 (0.062)	0.016 (0.062)
ln (Manufacturing VA/GDP) t-1	0.327*** (0.087)	0.311*** (0.086)	0.316*** (0.084)
Political controls			
Political Rightst-1	-0.014 (0.021)	-0.014 (0.020)	-0.015 (0.020)
Civil Rights t-1	0.061*** (0.021)	0.061*** (0.021)	0.062*** (0.021)
Years of Officet-1	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)
Democracyt-1	0.009** (0.004)	0.008** (0.004)	0.009** (0.004)
Country dummies			
Africa			0.15 (0.370)
Asia			0.002 (0.205)
North America			1.050*** (0.261)
South America			0.125 (0.343)
Middle East			-0.11 (0.271)
Western Europe			0.756*** (0.279)
Scandinavian Countries			0.339 (0.228)
Former Soviet Union			0.868*** (0.301)

	Dependent variable: Severance pay after 9 months		
	(1) Fixed Effects	(2) Random Effects	(3) Random Effects
Middle Income			0.864*** (0.224)
Low Income			0.533 (0.330)
Constant	7.082*** (2.041)	5.824*** (1.920)	5.802*** (2.043)
Observations	968	968	968
R-squared	0.099		
Number of id	74	74	74

Note: robust standard errors in parentheses. Time effects included.

* Statistical significance at the 10% level

** Statistical significance at the 5% level

*** Statistical significance at the 1% level

Table A8. Regional trade and severance pay after 4 years

	Dependent variable: Severance pay after 4 years		
	(1) Fixed Effects	(2) Random Effects	(3) Random Effects
Regional trade flows			
RTAs*Importst-1	-0.202 (0.307)	-0.098 (0.313)	-0.155 (0.307)
Economic controls			
ln (GDP p.c.)t-1	-0.391 (0.650)	0.744 (0.669)	-0.096 (0.689)
(ln (GDP p.c.))2t-1	-0.007 (0.040)	-0.066* (0.038)	-0.02 (0.042)
ln (Industrial Employment)t-1	-0.173 (0.136)	-0.15 (0.105)	-0.163 (0.110)
ln (Manufacturing VA/GDP) t-1	0.549*** (0.200)	0.497** (0.205)	0.508** (0.198)
Political controls			
Political Rightst-1	-0.003 (0.053)	-0.007 (0.051)	-0.003 (0.050)
Civil Rights t-1	0.127*** (0.045)	0.132*** (0.048)	0.129*** (0.046)
Years of Officet-1	-0.007 (0.005)	-0.009* (0.005)	-0.008* (0.005)
Democracyt-1	0.025** (0.010)	0.024** (0.010)	0.025** (0.010)
Country dummies			
Africa			0.056 (0.501)
Asia			1.342*** (0.403)
North America			2.012*** (0.574)
South America			3.004*** (0.872)
Middle East			0.647 (1.213)
Western Europe			1.236* (0.650)
Scandinavian Countries			0.495 (0.622)
Former Soviet Union			0.233 (0.396)

	Dependent variable: Severance pay after 4 years		
	(1) Fixed Effects	(2) Random Effects	(3) Random Effects
Middle Income			0.784 (0.653)
Low Income			-0.221 (0.799)
Constant	6.108** (3.060)	0.492 (3.147)	2.661 (3.237)
Observations	968	968	968
R-squared	0.094		
Number of id	74	74	74

Note: robust standard errors in parentheses. Time effects included.

* Statistical significance at the 10% level

** Statistical significance at the 5% level

*** Statistical significance at the 1% level

Table A9. Regional trade and severance pay after 20 years

	Dependent variable: Severance pay after 20 years		
	(1) Fixed Effects	(2) Random Effects	(3) Random Effects
Regional trade flows			
RTAs*Importst-1	-3.293** (1.524)	-2.665* (1.424)	-3.084** (1.442)
Economic controls			
ln (GDP p.c.)t-1	7.934** (3.205)	11.529*** (3.534)	8.971*** (3.116)
(ln (GDP p.c.))2t-1	-0.584*** (0.182)	-0.762*** (0.200)	-0.630*** (0.181)
ln (Industrial Employment)t-1	-1.347*** (0.463)	-1.138** (0.454)	-1.207*** (0.450)
ln (Manufacturing VA/GDP) t-1	0.112 (0.856)	-0.033 (0.795)	-0.009 (0.814)
Political controls			
Political Rightst-1	0.32 (0.219)	0.303 (0.222)	0.323 (0.216)
Civil Rights t-1	-0.344** (0.161)	-0.308* (0.165)	-0.326** (0.160)
Years of Officet-1	-0.092*** (0.026)	-0.097*** (0.025)	-0.096*** (0.025)
Democracyt-1	0.198*** (0.062)	0.196*** (0.063)	0.196*** (0.061)
Country dummies			
Africa			-0.734 (2.105)
Asia			8.040*** (1.943)
North America			7.613*** (2.489)
South America			15.309*** (3.191)
Middle East			10.984** (5.051)
Western Europe			6.671** (2.598)
Scandinavian Countries			2.934 (2.555)
Former Soviet Union			0.09 (1.509)

	Dependent variable: Severance pay after 20 years		
	(1) Fixed Effects	(2) Random Effects	(3) Random Effects
Middle Income			0.052 (2.675)
Low Income			-0.754 (3.667)
Constant	-18.66 (15.821)	-37.682** (16.275)	-32.351** (15.233)
Observations	968	968	968
R-squared	0.218		
Number of id	74	74	74

Note: robust standard errors in parentheses. Time effects included.

* Statistical significance at the 10% level

** Statistical significance at the 5% level

*** Statistical significance at the 1% level

Table A10. Regional trade and gross replacement ratio after 1 year

	Dependent variable: Gross replacement ratio after 1 year		
	(1) Fixed Effects	(2) Random Effects	(3) Random Effects
Regional trade flows			
RTAs*Importst-1	-0.103*** (0.039)	-0.087** (0.037)	-0.087** (0.038)
Economic controls			
ln (GDP p.c.)t-1	-0.024 (0.105)	0.032 (0.097)	0.031 (0.104)
(ln (GDP p.c.))2t-1	0.003 (0.006)	0.003 (0.006)	0 (0.006)
ln (Industrial Employment)t-1	0.005 (0.010)	0.013 (0.011)	0.012 (0.012)
ln (Manufacturing VA/GDP) t-1	-0.042** (0.017)	-0.063** (0.017)	-0.052*** (0.017)
Political controls			
Political Rightst-1	-0.004 (0.005)	-0.003 (0.005)	-0.003 (0.005)
Civil Rights t-1	0 (0.005)	0 (0.005)	0 (0.005)
Years of Officet-1	0 (0.000)	0 (0.000)	0 (0.000)
Democracyt-1	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Country dummies			
Africa			-0.068 (0.108)
Asia			-0.252*** (0.094)
North America			-0.168 (0.108)
South America			-0.252*** (0.094)
Middle East			-0.197* (0.111)
Western Europe			-0.038 (0.113)
Scandinavian Countries			0.094 (0.131)
Former Soviet Union			-0.071 (0.095)

	Dependent variable: Gross replacement ratio after 1 year		
	(1) Fixed Effects	(2) Random Effects	(3) Random Effects
Middle Income			-0.083 (0.061)
Low Income			-0.183** (0.074)
Constant	0.091 (0.475)	-0.379 (0.425)	0.032 (0.488)
Observations	952	952	952
R-squared	0.088		
Number of id	73	73	73

Note: robust standard errors in parentheses. Time effects included.

* Statistical significance at the 10% level

** Statistical significance at the 5% level

*** Statistical significance at the 1% level

Table A11. Regional trade and gross replacement ratio after 2 years

	Dependent variable: Gross replacement ratio after 2 years		
	(1) Fixed Effects	(2) Random Effects	(3) Random Effects
Regional trade flows			
RTAs*Importst-1	-0.017 (0.026)	0.006 (0.026)	-0.012 (0.024)
Economic controls			
ln (GDP p.c.)t-1	0.238* (0.139)	0.146 (0.116)	0.235* (0.120)
(ln (GDP p.c.))2t-1	-0.012 (0.007)	-0.005 (0.007)	-0.012* (0.007)
ln (Industrial Employment)t-1	0.008 (0.007)	0.009 (0.007)	0.011 (0.008)
ln (Manufacturing VA/GDP) t-1	-0.051*** (0.015)	-0.061*** (0.014)	-0.058*** (0.014)
Political controls			
Political Rightst-1	-0.001 (0.002)	0 (0.002)	0.001 (0.002)
Civil Rights t-1	0.001 (0.003)	0 (0.003)	-0.001 (0.003)
Years of Officet-1	0 (0.000)	-0.000* (0.000)	-0.000* (0.000)
Democracyt-1	-0.001** (0.001)	-0.001 (0.001)	-0.001* (0.001)
Country dummies			
Africa			0.096** (0.045)
Asia			0.050* (0.027)
North America			-0.018 (0.029)
South America			0.007 (0.026)
Middle East			-0.002 (0.027)
Western Europe			0.260*** (0.050)
Scandinavian Countries			0.401*** (0.072)
Former Soviet Union			0.026 (0.035)

	Dependent variable: Gross replacement ratio after 2 years		
	(1) Fixed Effects	(2) Random Effects	(3) Random Effects
Middle Income			-0.008 (0.021)
Low Income			-0.012 (0.035)
Constant	-1.152* (0.657)	-0.894* (0.525)	-1.207** (0.553)
Observations	952	952	952
R-squared	0.051		
Number of id	73	73	73

Note: robust standard errors in parentheses. Time effects included.

* Statistical significance at the 10% level

** Statistical significance at the 5% level

*** Statistical significance at the 1% level

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