International
Labour
Office
Geneva

Employment Sector
Employment Working Paper No. 31

2009

Economic implications of labour and labour-related laws on MSEs: A quick review of the Latin American experience

Juan Chacaltana

Job Creation
and Enterprise
Development
Department

ISBN 978-92-2-122368-9 (print);
ISBN 978-92-2-122369-6 (web pdf)
ISSN 1999-2939 (print); ISSN 1999-2947 (web pdf)

ILO Cataloguing in Publication Data

Chacaltana, Juan

Economic implications of labour and labour-related laws on MSEs : a quick review of the Latin American experience / Juan Chacaltana ; International Labour Office, Job Creation and Enterprise Development Department. - Geneva: ILO, 2009
1 v. (Employment working paper ; no.31)

International Labour Office; Job Creation and Enterprise Development Dept

labour law / economic implication / multinational enterprise / Latin America

04.01.6

Printed in 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 a goal embedded in the ILO Declaration 2008 on *Social Justice for a Fair Globalization, and*[1] 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 work,[2] 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 policies.[3]

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 briefs.[4]

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.

José Manuel Salazar-Xirinachs
Executive Director
Employment Sector

[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.

Foreword

This paper on economic implications of labour and labour-related laws on MSEs (micro and small enterprises) was prepared based on the Latin American experiences. As a normative organization, the ILO is naturally concerned with the application of labour law on MSEs.

Aside from legal and moral arguments, economic rationale is essential for wider compliance to labour law, particularly by the informal enterprises. This paper examines the economic effects of the labour law, particularly on informal economy in selected countries.

The paper carries out a general review of labour law reforms in Latin American countries. Besides reviewing the studies carried out in seven countries, the report also discusses the topics of hiring and firing, organizing unions, collective bargaining, taxes and social protection and minimum wages in twelve countries.

The economic effects of above labour-related provisions are analysed in the report by using various economic approaches, i.e., cross-section approach, before-after estimator, difference-in-difference estimator, structural estimation methods, etc.

It also discusses the special labour regime in Peru and compares with exceptions in other Latin American countries. It then estimates the economic incentives for the transition of the informal economy to formality.

The report was prepared by Juan Chacaltana under the technical supervision of Gopal Joshi of the Small Enterprise Programme in the Job Creation and Enterprise Development Department. The secretarial services of Annie Guyon in preparing and publishing this report are greatly appreciated.

Martin Clemensson
Programme Manager
Small Enterprise Programme (SEED)

David Lamotte
Director a.i.
Job Creation and
Enterprise Development Department

Table of contents

Figures

Tables

Boxes

Executive summary

There has been a tendency in Latin America towards providing a separate labour regulation for MSEs since they remain a major provider of jobs. This report provides

results of research regarding the economic implications of labour and labour-related laws on MSEs. The first part of the report provides a quick review of the existing literature on this subject and the second section provides evidence from empirical research findings.

Latin American labour markets have large shares of workers in the MSEs as well as independent, domestic and family workers and a large pool of workers in the rural areas. The percentage of workforce generally covered by the labour and labour-related regulation is rather small, represented by a small circle, usually concentrating on medium and large enterprises. This fact has been used to justify labour reforms in the past.

The literature review in this report concluded there are positive and negative economic effects of the labour law in general (other than the Fundamental Principles) although most studies seemed to have focused only on one parameter, usually the one related to negative effects, with positive effects being rarely assessed. A more balanced approach is needed in order to assess, as much as possible, both positive and negative effects.

At the micro level, labour and labour-related laws can protect workers and increase their bargaining power, but this protection also may mean economic implications affecting employers´ incentives to growth and employment generation. At the macro level, labour and labour-related laws introduce equality in the labour market but, since it has costs, this can also affect efficiency and aggregate economic variables.

For instance, hiring and firing laws regulate job and income security (entries and exits), and therefore they affect labour turnover, labour demand and productivity. Unions and collective bargaining regulations seek to equate bargaining power, but this affects profitability and could affect productivity. When social security contributions provide negligible or no return to workers or firms (due to systemic inefficiencies), they act exactly like a payroll tax. Finally, in the case of the minimum wage, the regulation attempts to reduce abuse in the labour market, introducing wage equality but this can also affect the firm's labour demand.

With the knowledge that both positive and negative effects occur, the question is then about magnitude of such effects and the offsetting capabilities as regulatory changes are introduced. On the one hand, countries such as Peru and Paraguay are implementing special labour regimes. The evidence however shows that in Paraguay no firm has used this system yet after three years of existence and in Peru five thousand out of two million firms are using it.

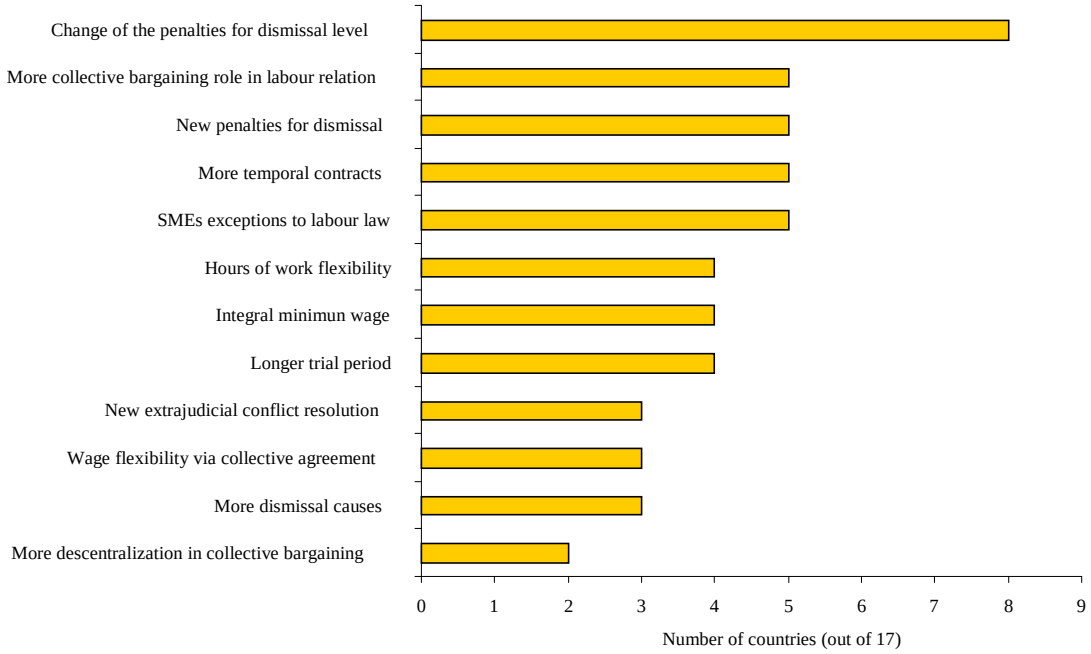
Although some evidence about what works and what does not has been provided by this quick review, a detailed analysis of specific country experiences could provide more definitive evidence of economic implications of the labour law. A selected number of comparable cases with a uniform research framework would be useful in providing comparative analysis.

1. Introduction

The relation between labour regulation and economics has always been a topic of great interest and debate for social actors, politicians and academics. In Latin America, there is a common idea that labour and labour-related laws impose "rigidities" to the labour market that need to be removed in order to promote employment generation. According to this view, labour and labour-related regulations, although created to help and protect workers, may actually hurt them, reducing the incentives of enterprises to hire them and reducing the efficiency in the general economy.[5] Therefore, labour regulations should be minimal. Another vision, however, considers that this "conventional view" generally ignores the positive effects that labour and labour-related laws could have on the labour market and assumes that the prior to a regulated labour market – a hypothetical without regulation situation – is always better, in terms of efficiency and equality, but there is no proof of it and in fact, they suggest that it could be worst (if it ever exists).[6]

In the last 15 years, the dominant vision in Latin America has been the first and as a consequence, the region has witnessed a tendency towards the reform of labour and labour-related laws, with a clear emphasis towards more flexibility (Figure 1).

Figure 1: Labour reforms in Latin America (number of countries)



Source: Vega (2005).

Figure 1 shows that most of these reforms, focused on hiring and firing regulations – probably because it does not only affect the costs of the firms; but also the bargaining power of workers – and also in collective bargaining regulations, especially towards a more

[5] Heckman and Pagés (2003).

[6] Freeman (2005).

decentralized negotiation.[7] In some countries there is already some kind of MSEs exception to labour laws.

After almost two decades of reforms, labour market structures in the region have not improved. On the contrary, unemployment rates increased from 7.9 per cent to 11.7 per cent from 1990 to 2002, and informality rates increased from 42.8 per cent to 46.5 per cent in the same period.[8] It is true that some institutions argue that these bad results were caused by incomplete reforms and therefore more reform is needed, but there is no evidence that more reform would improve this situation.

While this debate has not been solved yet, and although labour reforms implemented in the last two decades have not been completely evaluated, a new generation of labour reforms is appearing in Latin America, which considers that labour and labour-related laws should treat differently to firms of different sizes.[9] This is a very appealing idea in a region with high informality rates, a large share of the labour force working in small and low productivity business, and where there seems to be a positive correlation between the capability of governments to effectively implement labour and labour-related laws and firm size.

The concern about MSEs is therefore valid.[10] In fact, almost every country in the region has already some kind of differentiated treatment by firm's size, at least in some parts of the regulations. However, the new tendency towards a completely different or special regime for MSEs is new. It already exists in Peru and Paraguay (Vega 2006), to a lesser extent in Argentina and Brazil (Morgado 2006) and there has been debate about it in at least Venezuela and Mexico.[11]

Are these reforms the answer to the low compliance of labour and labour-related laws among small business? Are labour and labour-related costs so crucial for small firms that a reduction in these costs would be sufficient for complying with labour and labour-related regulations and also with other regulations (such as taxes and registry costs)? Are there other ways to increase compliance to labour law among MSEs? The objective of this report is to discuss these issues based on a quick review of the Latin American experience. For the above work, ILO publications and documents and other available literature were reviewed along with publications from other multilateral agencies, research organizations and donors.

[7] In this case, although reforms toward an improvement in collective rights have been observed, problems of effective implementation of these laws remain high.

[8] ILO (2005)b.

[9] For example, the 2006 Iberoamerican LabourLaw Summit considered this as one of the main topics.

[10] In fact, it is probable that the 90s reforms could have had a differentiated effect by firm size. While some regulations (hiring and firing for example) could have affected workers from large firms in a greater extent, other changes could have affected more MSE´s workers. Chacaltana (2003) for example, finds that in Peru, after the reform to the pension system (that created private funds, and changed the responsibility of payment from employers to employees) affiliation rates fell more among SME workers, than among large firm workers.

[11] See for Venezuela Conindustria (2001) and for Mexico, Sánchez-Castañeda (2006).

2. Economic implications of labour and labour-related laws

The labour relation in economics has two sides that are not possible to separate: first, it has a ***complementary*** side because workers and employers complement each other in order to produce, and second, it has a ***competitive*** side because after the production process is finished, workers and employers compete with each other for the benefits of the production.[12] As expected, the results of the competitive process determine who gets more of what is produced and it depends on the bargaining power of the parties involved. The main economic rationality for the existence of labour law is that there is an important market failure, an asymmetry in the bargaining power between employers and employees, which is stronger for employers.[13] From this point of view, labour law constitutes a market institution that regulates its functioning, since imperfect labour markets do not produce optimal outcomes in economics both from the individual and/or the social point of view.

Labour law regulates the labour relationship by giving workers some level of protection or benefits, the right to unionize and collectively bargain and also defining procedures and duties for both parties. At the same time, labour and labour-related laws usually imply costs, especially for firms. In both ways, they influence wages, employment, resource allocation, and also affect other aggregated variables such as welfare, demand, trade, investment, etc.

There are many channels through which these laws affect economic incentives and variables. In fact, depending on the type of law analysed, affected variables could be so diverse that specific studies for every case would be needed. For example, analyzing the effects of fundamental labour standards on Foreign Direct Investment (FDI) flows, Kucera (2002), argues that there are negative and also positive incentives. A negative effect is that indeed labour standards increase firm's costs and reduce incentives to FDI. However, positive effects arise from the fact that freedom of association increases political stability and the reduction in child labour and discrimination increases human capital, thus increasing the incentives for FDI. The final effect, that they find positive, is the balance of these two forces.

All these variables and processes are involved in just the relation of one type of labour and labour-related law and one economic variable. It is not the purpose of this quick review to analyse all the incentives and variables affected by all types of labour and labour-related laws on all types of economic variables, but it is clear that most of these laws also generate negative and positive forces and affect many intermediate variables. Figure 2 shows a general review of the most common variables mentioned in the Latin American literature reviewed. Labour and labour-related laws regulate the labour relation and affect variables, both at the micro and the macro level. As we will see later, most studies usually only perform partial equilibrium analysis basically trying to assess the effects of one type of regulation on one or two variables.

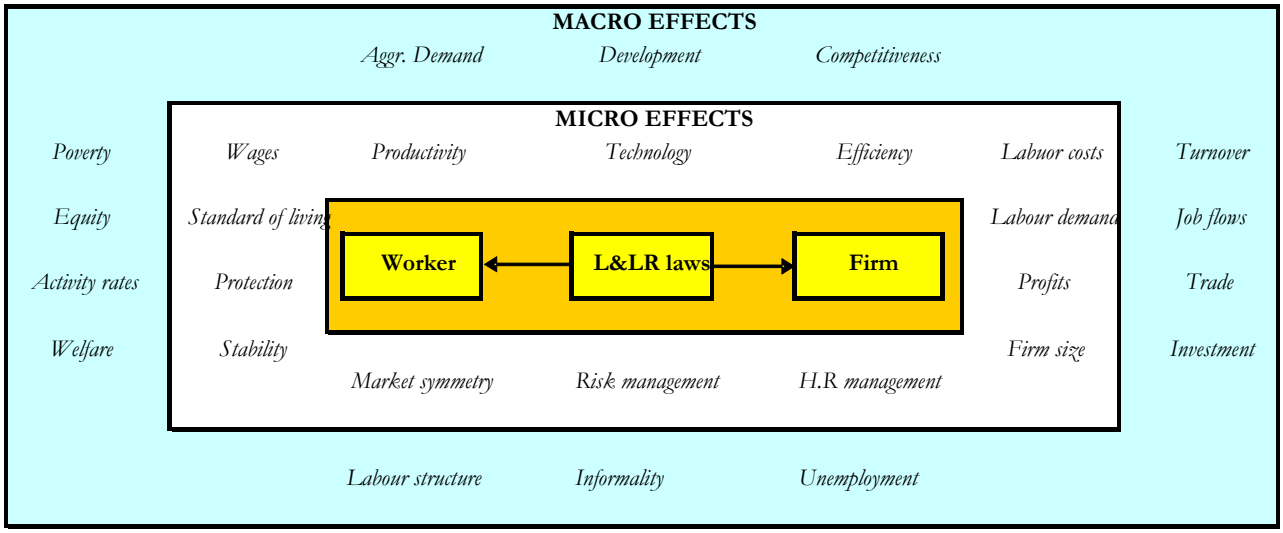
It is important to mention that labour and labour-related regulations should aim to increase social welfare. However, since the labour relation has two parties, many situations could arise. If both workers and employers win, as a consequence of the law, this regulation undoubtedly increases social welfare. However, if one party wins and the other looses

[12] Ehrenberg and Smith (2003).

[13] http://www.law.cornell.edu/wex/index.php/Labour#labour_law:_an_overview

(which is the most common situation), then social welfare increases only if the gain of the first is bigger than the loss of the other. Sometimes it is difficult to assess gains or losses, and even some studies usually concentrate on one type of effects disregarding the other, and that is what economists usually discuss about. In this chapter we present a quick review of these issues using available evidence for Latin American.

Figure 2: Some variables and dimensions usually mentioned as affected by labour and labour-related laws



2.1 Variants of the labour and labour-related laws and its effects

As we have mentioned, the economic effects of labour and labour-related laws depend on the type of law analysed. There are several kinds of labour and labour-related laws and in this quick review we have found that there are also different classifications of these laws.[14] In order to simplify the presentation of this review, we classify them in five groups: fundamental labour standards or basic rights, hiring and firing regulations, unions and collective bargaining, payroll taxes and social security contributions, and minimum

[14] The most common approach is to divide them in three main bodies: individual rights, collective rights and process laws. The ILO uses the fundamental and not fundamental rights approach in order to emphasize that the first are recognized internationally as a minimum set for all countries and the latter allow for national specificity. In the Latin American case, we have found some studies that provide general classifications of labour and labour-related laws (Figure A1 in the Annex). For example, Botero, Djankov, La Porta, Lopez-de-Silanes, and Shleifer (2004) propose four groups: employment laws, collective relations laws, social security laws, and civil rights. Employment laws are related to the labour contract and its conditions: hours and time of work, hiring and firing regulations and procedures. Collective relations laws are related to the right to unionization, to collective bargaining, institutions and characteristics of the bargaining and dialogue process; and the regulations on collective disputes and strikes. Social security laws regulate the risks of low income at older ages, disability and death, sickness and health and unemployment. Finally, civil rights are related to labour discrimination on grounds of race or gender, maternity leave protection, minimum working age and minimum wages. Another classification is provided by Portes (1994) – cited by Kucera and Galli (2005) – who distinguishes four types of labour and labour-related laws: basic rights, survival rights, security rights, and civic rights. Basics rights involve the rights against use of child labour, involuntary servitude and physical coercion. Survival rights include the rights to a living wage, to accident compensation and to a limited work week. Security rights involve the rights against arbitrary dismissal, to retirement compensation and to survivors' compensation. Finally, civic rights include the rights to free association, to collective representation and to free expression of grievances.

wages.[15] What are the likely effects of each type of labour and labour-related related law on economic variables that affect workers, firms and the economy? In this section we comment some of these questions, at a general level, and giving details in those aspects where the economic literature has had more emphasis.

2.1.1 Fundamental labour standards (basic rights)

The first set of labour rights are those that the ILO names the fundamental labour rights.[16] Although in the past this was not the case, currently, there is a high degree of consensus in the literature about the need for eliminating child labour and forced labour, especially in a global market economy. However, it is also recognized that there is still child labour and forced labour in the region. The question is why. Naturally, some bad employers are making good money out of these practices and those employers represent a bad and disloyal competition for employers that do not use child or forced labour. Then the question is not about incentives, as in the other cases. The question is how those practices could be identified. Stronger labour inspection in collaboration with complying employers could be a useful approach as the Brazilian case has shown.

The other fundamental rights are in a different situation: no discrimination and freedom of association and collective bargaining. Here we will comment on no discrimination since the right to form unions and collective bargaining is considered later. We have consulted several sources and not found literature evaluating the effects of antidiscrimination policies. We have not even found many sources relating to economic analysis of discrimination. This must then be part of the research agenda for the future.

From the economic point of view, discrimination has different sources. First, it can be motivated by tastes of employers or coworkers, in which case, antidiscrimination policies are simpler because those employers when confronted with competition face higher costs (quasi fixed labour costs). Second, discrimination can also be motivated by consumer's tastes, and they could be willing to pay for it, and then the situation gets complicated since market forces perpetuate this situation. Finally, discrimination can also be motivated by imperfections in other markets – information and/or education and training – and adopt the form of statistical discrimination. In the last two cases, exclusion arises from market imperfection and therefore positive policies are needed, since equal opportunity policies can perpetuate inequities. In Latin America, we have not found papers evaluating these types of policies.

However, the question as to whether economic incentives can be used to prevent these practices is difficult since firm's behaviour is just in seeking profits. The solutions seem to be in the policies dealing with market failures through information and/or education.

This type of ideas can help explain why Galli and Kucera (2004) have found a positive correlation between civic rights (including freedom of association) and economic development since in developed countries the institutional framework seems to work better than in less developed countries.

[15] This is an empirical classification, since these groups explain most of the economic literature in the region in the last two decades.

[16] Fundamental principles and rights cover 4 areas: a) freedom of association, unionization and the right to collective bargaining; b) no forced labour; c) abolition child labour, and; d) elimination of discrimination in employment and occupation.

2.1.2 Hiring and firing

Hiring and firing regulations constitute a protection for workers, in order to increase security and stability in their employment and incomes and also to prevent abuse, especially of non-causal dismissal. However, doing so these regulations could affect firms´ incentives since firms need efficiency in order to be competitive and thus need the possibility of introducing changes in both the production process and the resources involved in it.[17] Increasingly unstable demand in the goods market causes firms to adjust their production process constantly and hence the need to adjust labour and even firm size. If hiring and firing regulations are too rigid, in the presence of unstable product demand, incentives to hire or to fire formally could be reduced. For these reasons, some argue that in trying to protect workers, these regulations actually hurt them, reducing formal labour demand (Heckman and Pagés 2003).

An important issue here is the discussion on the causes of dismissal since the flexibility in firing for economic reasons (firms need to adjust under changing economic circumstances) does not however mean automatic cause for non-causal dismissal. On the contrary, one could argue that when economic causes for firing exist, non-causal dismissal should have a higher cost since this kind of dismissal would be motivated by non-economic rationale. In general, non-competitive behaviour usually implies higher costs for those that act in this way, and this could be the rationale for severance payments, especially in the case of non-causal dismissal.

Another important discussion is concerned with the effects of firing costs. The empirical literature has precisely focused on the effects of these regulations on turnover rates, usually finding a negative effect. This is actually expected since that is why these regulations were created for: to reduce income insecurity associated with turnover. The question is then whether reduced turnover limits performance variables such as productivity growth. How is the relationship between turnover (or worker tenure) and productivity within the firm? Is it positive, i.e., higher turnover always increases productivity? Some seem to think that way but in fact the relation between both variables seems to be more complex: there is a moment when actually increased turnover increases productivity but from a certain point, too much turnover could reduce productivity (Harris, Tang and Tseng 2002; Auer, Berg and Coulibaly, 2005). The relation seems to be not linear and changes sign at some point.

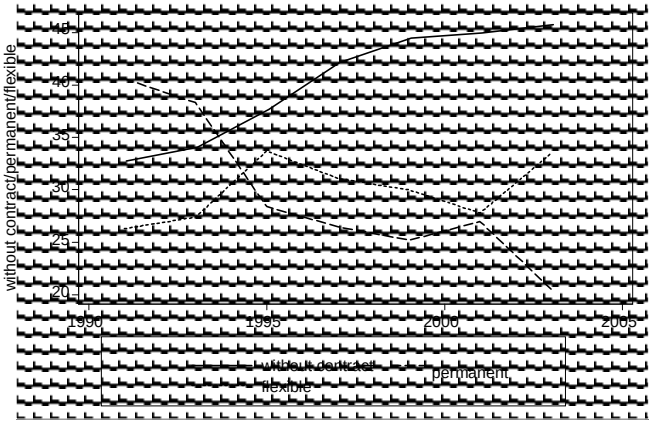
How does this happen? Several processes sustain this idea. For example, firms need experienced workers both potentially – at the labour market and specifically at the firm. Experienced workers contribute more to the firm's productivity than their costs at the initial stages of the productive process. However, at some point this changes, because the costs of too experienced workers (with longer tenure) exceed their productive contribution. At the market level, turnover rates allow efficiency in the allocation of productive resources, but too much turnover reduces the incentives for investing in human capital thus limiting the expansion of productivity. Therefore, there seems to be an "optimal" rate of turnover for each country and there is not a unique combination of regulations of hiring and firing to reach to that point.

[17] Actually firms seeking higher profits through higher productivity may need to reduce total unit costs contributing to their competitiveness. However, there is another way: reducing labour costs, which produces "spurious competitiveness" (Fajnzylber, 1988), since what one gains is what the other looses.

In Latin America, labour reforms in hiring and firing regulations (more flexible and temporal contracts and lower severance payments) have been introduced under the idea more turnover is always better. Even now, after 15 years of reform, some studies consider that further reductions in firing costs should be pursued in most cases, regardless of the process of reform already experienced and the current level of turnover in the labour market. This is the case in Peru for example: after a heavy process of reform that did not produce the expected results, reformers still claim for further flexibilization. In fact, econometric evidence shows that there is not a uniform relation in all countries between these variables. Several studies have been performed recently to analyse firing costs. As Galli and Kucera (2004) have noticed, this literature has no clear answers since they find a negative impact of firing costs on labour demand using cross sections but detects no effect using time series.

Box 1: Reform in hiring and firing in Peru

Peru is one of the countries with more extreme labour reforms (Vega, 2005). The reform introduced 24 forms of hiring (most of them temporal contracts) and reduced firing costs: new causal of fair dismissal was introduced and the prohibition of non-causal dismissal was removed. Reformers expected that these changes would create incentives to firms to use flexible contracts and thus reduce non registered workers. However, time series data shows that this has not happened.



This was an unexpected result for reformers, and two arguments have been used to explain it: a) the reform was insufficient and therefore more reform is needed and b) without the reforms the observed outcomes would have been even worse.

In our view, however, this experience is a case in which reforms in hiring and firing were accompanied by a reduction in the role of institutions at the labour market (unionization, dialogue and labour authority). Therefore the moral would be that flexibility with a reduced role for institutions could generate more informality.

Analysing an Australian case, Freyens and Oslington (2004) argue that the net effect of higher dismissal costs on employment is ambiguous and depends on multiple variables, such as business cycle parameters (flatter and longer cycles reduce probability of firing and hence the impact of dismissal costs on employment), discount and quit rates (higher rates reduce the expected present value of these costs and hence the impact), uncertainty about future conditions (a higher probability of random shocks, or larger random shocks, increase the impact), and so on. They add that empirical research on firing costs, and in particular research on the cost of unfair dismissal provisions, is still at an early stage and there is even discussion on the data about these costs. For the Australian case, they find that estimates of redundancy costs are around four to five months wage costs; and costs of causal dismissal, between one and four months wages. Although they find substantial variation between industries and occupations, they do not find much evidence of variation by firm size,

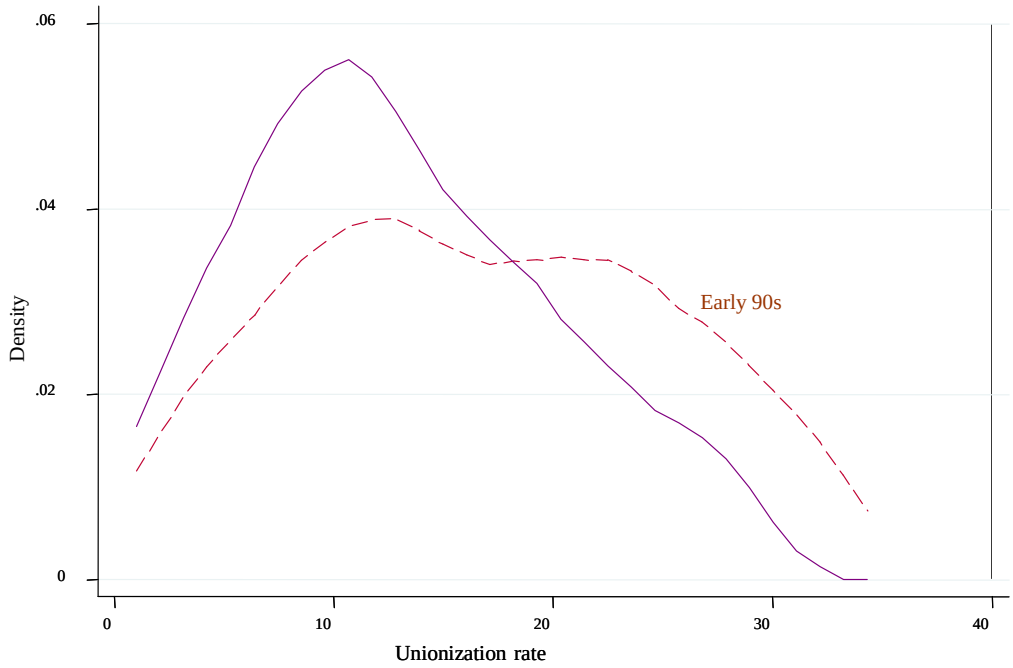
suggesting that unfair dismissal provisions do not impose a higher burden on small business. Based on these estimates of firing costs, they conclude that the employment impacts of removing firing costs are likely to be modest.

More research is thus needed before further reforms in these kinds of laws in the Latin American region are undertaken.

2.1.3 Unions and collective bargaining[18]

Unions and collective bargaining laws are established in order to strengthen bargaining power of workers in the competitive part of the labour relation. Unions have usually focused on wages although other benefits are always included in the collective bargaining processes.[19] In Latin America since the last few decades, there has been a remarkable fall in the rate of unionization, especially in the 90s. Labour reforms – and/or problems in the effective application of laws – antiunion managerial strategies and even union's poor performance have been identified as explaining factors for this process.[20]

Figure 3: The fall in unionization rates in the 90s (kernel density of countries) in Latin America



Source: The author's own, based on ILO (2005b).

[18] Freeman, R (2005).

[19] According to Szretter (2004), there are three ways in which unions could influence in labour incomes. First, when the union restricts its own labour supply (for example, limiting the entry to the labour market); second, when it bargains threatening with the retiring of the labour supply (for example, a strike threat); and third, when the union uses its power to increase labour demand, bargaining labour conditions, the entry of new technologies, pay and human resource systems or similar issues that can have a positive impact on productivity. He argues that there are no studies evaluating which of these mechanisms predominate.

[20] Weller, J. (2000).

Regarding the economic effects of unions, the literature has focused on the effects on productivity and profitability. In the case of productivity, there is a widespread belief that unions have a negative impact on firms. Actually, the relevant question in this matter is whether and how unions affect firm productivity. The literature identifies two contrasting positions in this matter. There is a "negative" vision (Dowrick y Spencer 1994; Estey 1981; McHugh 1991; Rees 1963) that indicates that unions have a negative effect on productivity at least in three ways: a) unions can impose work rules that limit productivity within firms; b) strikes can generate output losses; and c) union's wage advantage can generate distortions and inefficient allocation of labour resources.[21] There is also a "positive" view (Clark 1980; Barron, Fuess and Loewenstein, 1987), that argues that unions can increase productivity: a) union's wage advantage motivates firms to look for new technologies in order to reduce labour costs substituting capital for labour; b) unions are a collective voice that prevents disputes and increases worker's satisfaction and effort; and c) unions reduce labour turnover, thus increases worker's security and promotes training, both related positively with productivity. Freeman (2005) argues that unions reduce inequity (since unions reduce wage dispersion), turnover rates, firm's profits and increase workers' benefits and satisfaction, productivity and political activity. For these reasons, the observed reduction in union density is more related to firm's antiunion activities, especially in the United States.

Theory alone does not provide an unambiguous answer as to which one of these arguments is more important. It is actually an empirical question and it depends on the country. International literature finds mixed evidence: there are countries in which unions affect productivity positively and there are other countries with negative effects.[22] In Latin America, econometric evidence confirms mixed results also (Table 1).

Table 1: Effects of unions on firm's performance in Latin America

Study	Country	Effects on productivity	Effects on profitability
Menezes-Filho, Zylberstajn, Chahad y Pazello (2002)	Brazil (1988-1998)	Union density affects negatively labour productivity and positively employment levels. No effect on investment or wages. There is a concave relation with labour productivity, labour and wages.	No impact on profitability and wages.
Cassoni, Labadie y Fachola (2002)	Uruguay (1988-1995)	Union density has positive impact on labour productivity and employment.	No significant relationship with profitability.
Saavedra y Torero (2002)	Peru (1994-1996)	Union density has a negative but not significant relationship with labour productivity.	Union density has a negative and significant impact on profitability.
Chacaltana (2005)a	Peru (1998)	Union density has a positive but not significant relation with labour productivity.	N.d.
Szretter (2004)	Argentina (1998)	The existence of productivity clauses on collective bargaining has a positive effect on labour productivity.	N.d.
Mertens, Brown y Domínguez (2004)	Mexico (2001)	Union density, through good labour conditions, has a positive impact on labour productivity.	N.d.
Hernández (2004)	Panama (1999)	A higher share of unionized workers within the firm is positively correlated with labour productivity.	N.d.

Source: The author's own, based on cited texts.

[21] Heckman (2002) for example, considers that unions are monopolies and generate resource allocation that is negative for productivity.

[22] See for example Aidt and Tzanattos (2002).

In Brazil, there seems to be a negative relation; but in Argentina, Uruguay and Mexico, the relation is positive. In Panama and Peru, the relation is non significant. Why is it that in some countries the relation is positive and in some other negative? Szretter (2004) indicates that the final result of the union on productivity depends on the labour climate within the firm and what is being bargained in each case. There is little comparative evidence on this issue but Szretter (2004) finds that in Argentina, some bargained clauses – training, OSH or even profit sharing – seem to be very important for productivity. Which of these clauses promote more productivity? This is part of the research agenda for the future.

Regarding profitability, theory and empirical evidence indicate a negative effect. However, as Chacaltana (2005b) argues, this is not surprising since the main reason of union's existence is to compete for the benefits of production and productivity. If wages or workers' benefits increase, firm's profits are reduced by definition. This is what the bargaining process is about. In sum, in Latin America, the literature review indicates that unions and collective bargaining do not necessarily affect productivity although they do affect firm's profits since their role is precisely to compete with the firm for the benefits of the production process.

In a more general level, there is a debate about the effects of unions and collective bargaining on macro variables. For example, some authors consider that freedom of association and collective bargaining disincentive investment rates do not contribute to economic growth (Singh and Zammit, 2000) or that collective bargaining in developing countries generate rent seeking behaviour reducing wage flexibility and causing informality (Carneiro and Henley, 1998). However, others consider that labour standards are associated with social and political stability and those effects can offset the negative effects that labour standards can have on labour costs (Kucera, 2002). For example, for the Latin American case, Galli and Kucera (2004) find that countries with stronger 'civic rights' (including freedom of association and collective bargaining) have higher shares of formal employment and lower shares of informal employment which is consistent with the idea that the positive effects of these variables off set the negative effects. However, they also argue that there is a strong relation but the causality may be more complex, and therefore the results could be interpreted in the sense that civic rights and higher shares of economic development may represent different qualitative aspects of economic development. Policies aimed at increasing the share of formal employment may need to consider not only the strengthening of 'civic rights' but also other developmental variables.

2.1.4 Payroll taxes and social protection contributions

Payroll taxes and contributions are usually considered to have negative effects on labour demand, because they represent a gap between the labour cost for the employer and the pay the worker receives, and reduce the value added that production creates (Cahuc, 2004), thus generating a "social loss". The empirical research in Latin America has focused in this effect. For example, Pagés and Heckman (2003) concluded that social security contributions have a negative effect on labour demand, and the contributions finally generate less employment and wages for workers or provide substitution of capital for work. Gruber (1994) and MacIsaac and Rama (1997) add that a great part of the increase in labour costs is finally financed by workers via reduced wages.[23]

[23] This has been confirmed with several empirical studies. In Argentina, for the 1975-1996 period, wages of non insured workers were 8 per cent higher that those of the insured workers (Mondino and Montoya, 2000). In Chile, in 1994 workers explained 70 per cent of the social security costs and insured workers earned 14 per cent less that non insured (Edwards and Cox-Edwards, 1999).

However, regarding the economic effects, there are at least three discussions that need empirical research. First, there are some differences between payroll taxes and social security contributions, besides the fact that sometimes they are paid by the employer and other times by the employees. Payroll taxes are collected by governments without a direct return or reward for workers although some may consider the return in the forms of public education, health, security, etc.[24] Social security contributions, however, directly protect workers against work-related risks (illness, accidents, old age insecurity, etc.). This distinction should make a difference. In fact, Kugler and Kugler (2003) concluded that in the Colombian case, the extent of the link between contributions and benefits determines the magnitude of the effects of these contributions on labour market variables, such as unemployment. If there is no link, then social security contributions act as payroll taxes and then workers will not accept lower salaries in exchange for these taxes. If the link is higher, then workers might be willing to accept wage cuts in order to get these benefits, thus reducing the effects on unemployment.[25] However, an additional explanation could be that when results of the contributions are observed, firms would also be interested in financing these systems since they always face risk within the firm.

Second, most economic papers consider that social security contributions are just costs and therefore, reduce labour demand. However, this type of analysis does not include the existence of risk within the firm and society. Social security systems exist because risk is present in the labour market and sooner or later, risk is costly for society. For example, when health systems do not properly function, then somebody would have to pay for illness or accidents, if not firms, then workers should do it or the society via government expenses. Even only considering the firm's incentives, it is clear that the non-existence of a health protection system would reduce productivity since illness and accidents generate absence at work, reduce effort and even produce other contingencies at work. Hence, competitive firms do not look for "minimum" rates of social security contributions (the least possible), but for "optimal" ones. In this case, such as health and accidents, the optimal rate of contribution is the one that efficiently handles risks inherent to the firm's activity.

Table 2: Social protection systems as risk management mechanisms

Area	Risk involved	Negative effect	Positive effect
Health and OSH	Illness, accidents	Increased labour costs	Lower illness and accident rates Lower costs related to illness and accident compensation
Pensions	Insecurity of income at old ages	Increased labour costs	Increased income security for old ages workers and families Reduced costs for society
Unemployment	Risk of unemployment	Increased labour costs	Increased income security for workers Reduced costs for society

Source: The author's own.

Third, and associated to the previous idea, even though social protection systems actually increase labour costs to firms or reduce wages to workers, the efficient administration of work-related risks generate benefits at different levels. For example, health or OSH systems reduce illness and accident rates and also reduce the consequences

[24] This is an important difference in Latin America with respect to developed countries: taxes are not perceived as to have any benefit, nor even indirect benefits for tax payers.

[25] It is interesting that these authors find that these effects also depend on the business cycle: effects on wages and labour demand in recessions seem to be smaller than effects on expansion periods. (Kugler and Kugler, 2003).

of those events on workers, thus reducing costs for society who otherwise would have to pay for those events. Similar benefits are associated with old age pensions and unemployment systems, when they exist. In all those cases, the question is not whether or not these systems should exist, or what is the minimal cost of social security systems, but what is the optimal one, i.e when costs start exceeding benefits. Unfortunately, most of the papers reviewed concentrate only on the costs for the firm, but do not include the benefits in the assessments. This is a more complicated methodological task as we will see in the next section.

Another question is about the financing of these systems and if all social security systems should be financed via the labour market. In most cases in Latin America, there are two ways in which these systems are financed. One is via contributive mechanisms, and those are inherently tied to wages or more specifically to salaried and formal work. These kinds of systems are usually regressive since most of the covered or insured workers are precisely those with the better and well paid jobs. On the other hand, there are subsidized mechanisms, not tied to contributions, but to fiscal expenditure, which most of the times are targeted and progressive.[26] The question in these systems is usually related to the possibility of financing in most cases pro cyclical (financing is reduced usually when output falls.

2.1.5 Minimum wages

Minimum wages are the floor of the private sector wage distribution and are usually set with redistributive purposes.[27] Almost 90 per cent of the countries in the world have minimum wages and in Latin America that figure practically reaches 100 per cent.[28] As in the previous cases, the economic discussion on minimum wages usually focuses on the benefits and costs of these interventions, since both coexist and it is necessary to seek for balance. First, an increase in the minimum wage could potentially have negative effects especially if it generates an increase in labour costs, sufficiently large as to reduce the firm's labour demand. This result comes from the usually accepted negative relation between wages and labour demand within the firm.[29] In other words, conventional economic theory predicts a negative relation but it does not say anything about the magnitude of this effect: how negative is this effect? That is an empirical question.

Second, theoretically minimum wage increases could also have positive effects on the labour market especially if they are able to influence the general wage distribution.[30] This would happen if the minimum wage affects not only wages of those covered by this mechanism but also those not covered, giving place to the so-called "*light house effect*". If there is a light house effect, then minimum wages could be used in order to influence the

[26] For example, some economists think of public works programmes as an unemployment insurance system for the poor.

[27] Marinakis, A and Velasco, J. (2006).

[28] See ILO (2005) Minimum Wage Data Base. According to the Country Reports on Human Rights Practices 2004 the exception in Latin America is Suriname, where there is not a legal minimum wage but where wages are influenced by collective bargaining (almost 60 per cent of the labour force is unionized).

[29] See Hamermesh, D. (1993). Also see Cahuc (2004), who mentions that a large number of studies have attempted to estimate the elasticity of labour demand and, most of them – using production functions or cost functions – find a negative elasticity of labour demand with respect to the cost of its factor.

[30] Card and Krueger (1995) for example find positive effects of the minimum wage on employment levels.

overall wage distribution and therefore could have an effect on aggregated demand that could generate an expansion on output and therefore employment levels.

Then the question is: which one of these effects predominates? In other words, when an increase in the minimum wages occurs, how negative is the effect on labour demand and how positive is the effect on the overall wage distribution? These questions are always in nature empirical dependent on the previous level of the minimum wage and its relation with the average wage, labour productivity and the rate of compliance of the minimum wage. Most of the studies have usually estimated only the first effect. Table 3 includes some studies on the effects of minimum wage in Latin America.

Table 3: Selected studies on the effects of minimum wage (MW) increases in Latin America

Country	Study	Negative effects	Positive Effects
Colombia	Maloney and Núñez (2003)	Negative effects on employment, on the probability of becoming unemployed and in job flows. Employment-MW elasticity of - 0.15.	Minimum wage can have an important impact on the wage distribution in the neighbourhood of the minimum wage, especially in wages below the minimum (this effect disappears as wages rise). Smaller effect among self employed workers. Their wages adjust at a slower speed.
Chile	Pagés and Montenegro (1999)	MW increment reduces employment probabilities of the youth and non qualified workers of all ages.	An increase in the MW increases the probability of employment of women.
Brazil	Neri, Gonzaga and Camargo (2000)	Positive correlation between MW and unemployment. MW increases the probability that formal workers become unemployed (from 4.4 per cent to 8.8 per cent)	Positive impact on those workers at the bottom of the income distribution. MW affects more informal workers than formal workers. Negative elasticity MW-poverty (between - 0.68 and - 0.34)
Peru	Jaramillo (2005)	Negative effects on some groups: Private salaried workers Formal salaried workers around the previous MW. Less negative effect among independent workers.	There is no light house effect. Positive effects around 0.9 and 1.2 times the previous MW.
	Céspedes (2005)	Employment – MW elasticity of - 0.13. Greater negative effects among youth.	There is granger causality between MW and the general wage distribution (there is a light house effect) Changes are higher in the lower parts of the wage distribution and for the youth.

Source: The authors' own, based on cited texts.

Even though we have found more studies than those presented here, the ones shown here are useful to identify the type of effects found. First, most of the studies find negative effects of the minimum wage on labour demand, employment probabilities, and even job flows. In some cases, those negative effects are concentrated on some specific parts of the labour distribution, implying that some groups are more affected by these increases. In Colombia and Peru, negative employment-MW elasticity levels are around -0.13 or -0.15. In other words, while not in all cases, significant negative coefficients have been found, when these coefficients are indeed significant, their level is not that large: in the extreme cases, a 100 per cent increase in the Minimum wage would be needed in order to motivate a reduction of 13 or 15 per cent in employment. In most cases, these effects are concentrated on some groups of workers.

Second, there seems to be an important discussion on whether "light house" effects really exist. This is an important issue since the existence of light house effects could result

in an increase in other workers' incomes and even a demand shock for the economy. Some studies report null light house effects, but some report even granger causality (as Céspedes in Peru) or effects for some specific groups. None of the studies under review estimated the effects that this micro effect – the increase in wages for workers not covered by the MW – could have on the aggregate demand and on production levels. However, given the magnitude of the micro effects, we can think that the macro effects could be small also.

2.2 Measuring economic effects of labour and labour-related law: importance and pitfalls

Measuring the economic effects of labour and labour-related laws is a complicated issue. Performance indicators need to be identified and then the impact of laws on those indicators need to be assessed.[31] Assessing impact implies measuring "additionality", i.e., and this implies answering questions such as, what are the additional positive outcomes that the intervention produces, what are the returns involved and also whether there is any undesired result (Box 2). In practice, we need to answer the following question: Would the outcome have been different if the regulation had not occurred?[32] This simple question is extremely difficult to answer in the real world because we do not observe the world in two situations at the same time: with intervention and without intervention.[33]

Box 2: The problem of evaluation

The evaluation problem has to identify several possible outcomes, both desired and undesired:

Desired outcomes:

- Additionality: what specific net effects did the law created?
- Returns: this means that the outcomes should be greater than costs when compared.

Undesired outcomes:

- Displacement effects: MSEs affected by the labour and labour-related laws displace other firms not affected by the reform
- Substitution effects: workers in MSEs affected by labour and labour-related laws generate employment but substituting workers in other firms.

Source: White and Chacaltana (2002).

The first is a qualitative approach using perceptions, opinions, or logical assessments. While this approach is very helpful especially for quick studies, care must be taken when using this approach since the use of perceptions and opinions are valuable but not systematic, and in many situations there may be more than one opinion on a particular subject. For example, while reformers are especially interested in attributing outcomes to their efforts, others – especially those affected – could have a different view, and therefore even in this simple task a tripartite assessment is recommendable. Some laws, such as the

[31] As we have mentioned before, multiple variables could be affected by every specific law, and therefore the identification of the right "dependent" variable can be an issue for impact evaluations. Most studies select one or a limited number of variables, and focus on those effects.

[32] A more difficult question is: Would the outcome have been different had the intervention been different? See Heckman, LaLonde and Smith (1999).

[33] While we can easily observe, and hence measure, the "with intervention" state; for measuring the outcomes in the "without intervention" state we need the construction of a counterfactual. In other words, we need to estimate a hypothetical state in order to measure what would have happened if the intervention had not been introduced.

Colombian laws of SME promotion (Laws No. 905) and even the national programme of SME support, have been assessed using this approach, and have produced debate and discussion.[34]

Second, there is a growing literature that takes a quantitative approach. In general, elaborated econometric methods have been developed in order to assess the effects of labour market interventions. Most of these methods rely on the existence of a counterfactual, or comparison groups to assess impact, i.e to identify the effects caused by the interventions and not by other phenomena. However, in the case of labour and labour-related laws, by definitions these laws affect all people or enterprises in a country or region and for that reason there is no possibility of constructing a comparison group as a counterfactual.

Several methods haven been used to address this problem. We identify at least four methods frequently used by the specialized literature.[35]

2.2.1 The Cross-Section (CS) estimator

The cross section estimator is the basic design to assess the causal effect of one variable over another. Studies performed using this approach generally use cross-country data, or cross-country variation, on labour regulations to investigate the effects of labour law on outcomes because changes in labour legislation within a country are usually infrequent. For that reason, pooling data from several countries allows to obtain the required variation to estimate the relationship of interest. The studies of Lazear (1990), Bertola (1990), Márquez and Pagés (1998), and Heckman and Pagés (2003), are examples of the CS design in a cross-country set-up.

Pitfalls. The main problem of the CS design is that causing variables are seldom randomly assigned, that is, they are not exogenous. In most situations, it is impossible to include all the additional variables correlated to the causing variable in the regression model simply because these variables are not available to the researcher in the data. Thus, CS estimates are often affected by omitted variable bias. In general, it is difficult to ensure that the causing variable is truly exogenous, this happens because in real life many events and features of an individual or a firm are intertwined.[36] A second problem with the CS estimator is over-controlling. This occurs when a covariate affected by the causing variable is included in the regression model. If the relationship between these two variables is positive, the inclusion of the additional covariate will lead to a downward bias on the estimated causing variable because some of the causal effects will appear through its relationship to this covariate.

[34] www. http://www.fundacioncorona.org.co/

[35] See Annex 2 for a detailed explanation.

[36] For instance, when estimating the returns to schooling, it is difficult to ensure that schooling is an exogenous variable. It is surely related to ability, which also affects earnings. Omitting ability in an earnings regression biases the estimate of schooling coefficient in an earnings regression, making difficult to interpret the estimated relationship between schooling and earnings as causal. Typical ways to attenuate the extent of omitted variable bias is to include as many covariates as possible to attain the *ceteris paribus* condition, that is, to maintain everything else equal.

Table 4: Studies using the cross section approach

Study	Purpose	Results
Lazear (1990)	Investigates the effects of severance payments on employment, unemployment, labour force participation and hours of work using cross-country data from 22 developed countries over 29 years.	Finds that high severance payments and advance notice requirements reduce employment and labour force participation but do not affect unemployment.
Bertola (1990)	Estimates the effects of job security provisions on output levels, employment levels, hours of work, and unemployment rates, for ten countries, seven European countries plus the U.S. and Japan.	Job security provisions are negatively correlated with the variance of employment and with unemployment's response to output changes.
Heckman and Pagés (2003)	Changes in dismissal costs and other forms of job protection.	Dismissal costs are much higher in Latin America than in OECD countries. Job security provisions and dismissal costs have negative effects on the level and distribution of employment and these effects are stronger in Latin America than in OECD countries.

Source: The author's own, based on cited texts.

2.2.2 The Before-After (BA) estimator

The before-after estimator exploits temporal variation that defines a pre-change period and a post-change period associated to the causing variable. This estimator is applied in empirical work when the same change in the causing variable or the policy change applies to the population at large, so everyone gets exposed to the new level of the causing variable or the new policy regulation (we observe only one group in both pre-change and post-change periods). If the policy change associated to the causing variables is the only change in the environment, then the temporal variation in the policy allows estimating the effect of the causing variable on the outcome of interest by comparing outcomes before and after the change. This empirical strategy is not valid in general, but in some applications may be appropriate. In particular, this strategy would be useful in situations when there is a sharp change in policy or in the causing variable and when individual units are comparable over time in the absence of the policy change. In many cases, it is difficult to obtain unbiased estimators of changes in law because many other changes and secular trends occur at the same time as the policy change being analysed. For instance, changes in labour codes and trade liberalization were implemented during the nineties in several Latin American countries and both policy changes affected all workers or firms and it is difficult to separate their net effects.

An alternative approach consists on a two-step procedure. In the first step, the parameters of an underlying relationship (such as the labour demand elasticity) are estimated over time. Then, in the second step, the effect of interest is isolated by estimating a pre-post regression using the estimated parameters from the first step as the dependent variable and a time dummy for the post-reform period as the main explanatory variable (obviously, many other conditioning variables can be included on this regression to reduce the omitted variables bias problem). This was the strategy used by Paes de Barro and Corseuil (2001) shown in Table 5.

Table 5: Study using a before-after approach in two steps

Study	Purpose	Results
Paes de Barros and Corseuil (2001)	Analyses the effects of the 1988 constitutional change that modified Brazilian labour market regulations, which increased the level of worker protection. Particularly, they analyse the effects of increasing firing costs.	They use monthly longitudinal information between 1985 and 1998 from the Pesquisa Industrial Mensal, a sample of about 5,000 manufacturing firms. First, they estimate month-by-month labour demand equations and key parameters of the labour demand are obtained on a monthly basis (employment-wage elasticity and speed of adjustment with respect to past employment). In the second step, regressions of these parameters on a post-reform variable (alongside other additional variables to control for the macroeconomic environment) are estimated. Their results suggest that the 1988 constitutional change did not have any significant effect on labour demand.

Source:The author's own, based on cited text.

Pitfalls. The major problem with the BA estimator is the possibility that the group before the policy change and the group after the policy change are not comparable. The main identification assumption of the BA is that these two groups are comparable in the absence of the policy change or the treatment. However, it is possible that other unobserved factors besides the policy change under study affect the analysis group. If this is the case, then the BA estimator would pick up these other factors together with the true effect of the policy biasing the results. One possibility to solve this problem is to identify sub-groups affected by these other secular factors but unexposed by the policy change. Then, any time invariant secular trends can be removed by taking the difference between the BA estimate for the exposed and unexposed groups. This is the intuitive idea of the next identification strategy.

2.2.3 The Difference-in-Differences (DD) estimator

Difference-in-differences techniques are an extension to the before-after method that applies when certain groups are exposed to the causing variable while others are not. Exposed units comprise the treatment group, while unexposed units the control group. The method consists of taking the difference of the outcome of interest before and after a change in the causing variable for the exposed group and then difference away the difference of the outcome before and after the change for the unexposed group, thus the term difference-in-differences or double difference.

The DD strategy is well suited when sharp changes in the environment or changes in government policy are observed and when these changes generate variation across groups affected and not affected by them, thus generating a treatment group (exposed) and control group (not exposed). This identification strategy has been applied to study the effects of changes of labour law and labour reform in several countries around the world (Table 6).

Table 6: Some studies using DD estimators

Study	Purpose	Results
Kugler (2000)	In 1990, the Colombian Labour Reform reduced severance payments, reduced limitations on temporary contracts, broadened the reasons for fair dismissals and accelerated procedures for massive dismissals. The author analyses the effects of the labour reform on workers' turnover rates.[37]	Workers employed at formal firms are the treatment group and workers in the informal sector the control group. The indicator for treatment/control is interacted with a temporal variable indicating the post-reform period to identify the turnover effects of reducing firing costs. Overall average tenure fell by 3.7 months after the labour reform, i.e an increase in worker turnover rates. Average unemployment spells fell by 3.1 weeks following the reform. Kugler mentions that a potential problem in this strategy is that the decision by the firm to enter the formal sector might be affected by labour costs, which were affected by the labour reform.
Hopenhayn (2001)	Studies the effects of the 1991 and 1995 Argentinean labour reform on employment turnover. The 1991 reform introduced fixed-term and temporary contracts that reduced dismissal costs and payroll taxes. The 1995 reform introduced a probationary period of three months for all new contracts, a special regime for hiring in small firms without severance payments, labour contracts for some workers, and training contracts for 14-25 years old workers.	Using a household survey for the Greater Buenos Aires that follows individuals for two years, the author implements a DD strategy to identify the effects of the 1995 reform on worker turnover (employment hazard rates). Treatment corresponds to exposed demographic groups (14-25 or 40-+ years of age) and workers from small firms. The evidence reported does not support the presence of any effect of the special regimes for small firms and young workers. None of the coefficients of the relevant interaction terms were statistically significant on the hazard regressions.
Kugler, Jimeno and Hernanz (2002)	Studies the employment effects of the 1997 Spanish labour reform that reduced dismissal costs for unfair dismissal (-25 per cent) and payroll taxes (-40 per cent and -90 per cent) for permanent contracts. These reductions applied only to new permanent employment contracts and to conversions from temporary to permanent contracts signed after the second quarter of 1997 for particular groups of workers (workers 30 years old or younger, workers older over 45 years of age, women under-represented in their occupations, disabled workers, and long-term unemployed). This change in the law constitutes a natural experiment since it generates temporal and cross-section variation because the reform affected different groups of workers differently.	Results indicate that reductions in payroll taxes and dismissal costs increased the employment of young workers on permanent contracts by 2.5 to 3.9 per cent relative to middle-age workers. They find no statistically significant effects for older workers or for women. They also explore the effects of the 1997 reform on worker's transition probabilities between non-employment, permanent employment and temporary employment. They found that: Transitions from non-employment to permanent employment increased by 45 per cent for young workers relative to middle-age workers. For women these transition increased by about 16 per cent. Transitions from temporary to permanent contracts increased by 33 per cent for younger workers and by 23 per cent for young women. No statistically significant effects on the transitions from permanent to non-employment were found.

Source: The author's own, based on cited texts.

A variation of this model arises when the interaction between the time variable and the treated variable is not enough to correctly specify the group from which the effects of interest shall be estimated. In particular, it might be the case that among the treatment group only a sub-group is really being affected by the change we are interested in. When this

[37] Kugler (2000) also mentions that family workers, temporary workers, and workers employed in small firms (enterprises with 5 or fewer employees) are not entitled to severance payments, and domestic workers and workers employed by firms with very little capital are entitled only to a severance payment of 15 days per year worked.

situation arises, a natural extension of the DD strategy is to consider higher-order interactions to isolate the effect of interest. Assuming that there is a particular sub-group of affected individual units after the change in the law among those exposed, an additional variable indicating whether a treatment unit belongs to the affected sub-group shall be included in the regression model alongside the variables indicating the post reform period and the indicator of the treatment group. Then, the effect of the change in the law is estimated from the interaction of these three variables. In terms of the previous discussion, this procedure is a difference of difference-in-differences, usually denoted as DDD in the labour economics literature.

Kugler (2001) implements a DDD strategy to estimate the effects of changes in labour regulations in Latin America. The study examines the effects on hourly wages and weekly hours of work of the 1990 Social Security Reform in Colombia. The reform enacted in 1990 replaced the traditional severance payment system with a severance payment savings account (SPSA) system. Under the new system, employers must deposit severance payments equivalent to 8.3 per cent of the current salary into workers' savings accounts on a monthly basis. The new system applied automatically to any worker hired after January 1st 1991. Given that Social Security legislation applies only to formal-sector workers, the identification strategy used by Kugler relies on the interaction between post-reform time, formal-sector workers, and short-tenure workers. From a theoretical standpoint, as long as mandated benefits are valued by workers and they can collect from their accounts the proceeding of these payments without uncertainty, the costs of severance payments can be shifted from employers to employees. Kugler finds that hourly wages fall by 4.2 per cent for treated workers – formal and short-tenure workers (workers with less than 2 years of tenure in 1992 and less than 6 years of tenure in 1996) – this is equivalent to a 50 per cent shift of the 8.3 per cent severance pay contribution by employers. Regarding hours of work, Kugler finds a positive effect of the reform.

Pitfalls. DD strategies help solving some of the problems of the BA method to estimate causal relationships. However, as any other empirical strategy there are potential pitfalls under these strategies as well. In general, DD strategies will break down when selection of units into the treatment and control groups depends on pre-existing differences in outcomes. This makes treated and control units not comparable in other unobserved dimensions, so the second difference that removes secular time invariant secular trends is not enough to identify the true causal effect. For instance, in the labour training programme evaluation literature it is common to compare the gain on earnings between participants and non-participants to estimate the effect of training on earnings. However, as Ashenfelter (1978) and Ashenfelter and Card (1985) pointed out, earnings of programme participants usually drop in the period just before they enter the programme which might be the actual reason they enter the programme or make them more likely to seek treatment. This is known as the *Ashenfelter's dip* in the programme evaluation literature. In general, the DD design is not well suited when we suspect that time variant trends are present. In the context of policy changes such as labour reforms, DD strategies will likely break down if the policy change is targeted to some groups based on pre-reform differences between treatment (exposed) and control (unexposed) individual units. In this case, given the institutional setting of the labour change it still may be possible to estimate the causal effect of the policy change if the targeting mechanism is known and information on the variables that determine exposure are available to the researcher in the data.

A second potential problem with DD strategies is that of functional form dependence. This occurs when the average level of the outcome of interest is very different between treatment and control units before the policy change. In such a situation, the magnitude or even the sign of the DD effect is sensitive to the functional form being estimated. For instance, it is possible that when estimating a DD regression model with the outcome in levels no effect is obtained, but when the model is estimated with the log of the outcome as

the model's dependent variable instead, a statistically significant relationship arises. Thus, it is a good practice to compare outcome average levels between treated and control units in the period before the policy change (the pre-reform period), and to check the robustness of results to different functional form assumptions.

A third potential threat to DD strategies, which also apply to other strategies that assume common effects,[38] is the presence of treatment effect heterogeneity. This problem occurs when treatment and control units respond differently to the policy change. A fourth threat to the validity of DD strategies is the possibility of omitted interactions that occur when there exists a relationship between the post-reform variable and the exposure status variable besides treatment. For instance, assume that concurrent with labour legislation reforms that modify severance payments and payroll taxes one observes a period of economic expansion unrelated to the reform. It is likely that different income groups are affected differently by an economic expansion, thus additional interactions might be needed to correctly specify the model. Finally, DD strategies also break down when the policy change generates general equilibrium effects, that is, when changes in the environment cause changes across markets or across sectors and effects in a market have feedback effects on other markets.

2.2.4 Structural estimation methods

Structural methods begin by constructing a fully specified model of the economy; it could be a partial or a general equilibrium model, in which the relationship between variables of interest (outcomes as well as causing variables) are considered. This model is solved to obtain policy functions, that is, optimal response functions. In some cases, the fundamental parameters of the model can be estimated if data is available, in other cases these parameters are calibrated from other sources. Once all these ingredients are in place, the model can be used to simulate what would happen had a variable (such as firing costs) of the model changed.

The major advantage of structural models is that if we are able to estimate the underlying parameters of the model, we can predict the effects of virtually any policy change that directly manipulates either prices or income. Up until the last two decades, structural models were rather simple due to the computational requirements to solve them or to estimate them. Thanks to the constant improvement of computer capabilities and processing speed, structural models are becoming more complete. In Table 7, we describe some recent studies that use structural models to assess the effects of labour regulation.

Pitfalls. One of the major problems and sources of potential pitfalls of structural models and structural estimation is precisely the imposition of arbitrary structure to the data. The main problem of imposing structure to the data is that this structure could be misspecified, leading to wrongful results, especially when assumptions about the functional forms of preferences or technology are inconsistent with the data. A second problem of these methods is that they require large amounts of information in order to estimate the parameters embodied in the models. It is usually difficult to get enough data in order to obtain all the ingredients required to estimate these parameters. This often drives researchers to calibrate their models instead of estimating them, setting simple functional forms, and obtaining the parameters either from cross-section or time series datasets. In

[38] The cross-section, before-after, and difference-in-differences models assume what is known as the common coefficient model. In short, the common coefficient model refers to situations in which the response to treatment does not vary across sub-groups in the population. See Heckman and Robb (1985) or Heckman, LaLonde and Smith (1999) for details.

many cases, researchers obtain some of the parameters in their models from other micro-econometric studies, which may generate problems of inconsistency because the identification assumptions of these micro-econometric studies might be incompatible with their own model. Additional limitations to the solution and estimation of structural models are related to complex calculations required that entail high computational burden even for fairly simple models and what is called in this literature "the curse of dimensionality". These limitations restrict the models to consider just a few variables in order to keep the model manageable (particularly when the variables under analysis are continuous variables), and often also force researchers in this area to impose assumptions not intrinsic to the economics of the problems under analysis for computational convenience.

Table 7: Some studies using structural form estimation

Study	Purpose	Results
Bentolila and Bertola (1990)	Using a partial equilibrium model they simulated the effects of increasing firing and hiring costs on employment levels.	Their simulations suggested that employment increases slightly with firing costs, because the firing effect dominates the hiring effect.
Hopenhayn and Rogerson (1993)	Using a GE model, they studied the effects of firing costs on job turnover and firm entry and exit.	They simulate the effect of firing costs and find that an increase in firing costs reduces employment.
Pries and Rogerson (2005)	General equilibrium model to study the effects of labour market institutions on employment and worker turnover. Particularly they tried to explain why observed worker turnover is lower in Europe than in the U.S.	Simulations from the calibrated model suggested that minimum wages and firing costs policies have significant effects on worker turnover and employment levels: a 15 per cent increase in the minimum wage reduces workers turnover by 13 per cent, while moving from zero to three months dismissal costs reduces worker turnover by 10 per cent. The same changes in the minimum wage and dismissal costs reduce employment levels by 4.5 per cent and 1 per cent respectively.
Dolado, Jansen and Jimeno (2005)	Studied the effects of dual employment protection laws that established different regulations for some workers (young, women, unskilled workers, etc.). In particular, they studied how regulations that reduce firing costs for some particular group might affect the level of employment of that group as well as the employment of other groups. The idea is that a reduction of dismissal regulations for one particular group may affect aggregate employment levels in a different way than a reduction in firing costs across the board.	They used a general equilibrium where skilled and unskilled workers compete for the same job, and where EPL establish that firing costs are different for these groups of workers. Their findings were: A reduction in firing costs for only unskilled workers reduces unskilled unemployment by about 4.2 per cent and increases skilled unemployment by about 2.1 per cent. A reduction of firing costs for skilled workers alone generates negligible effects on unemployment of unskilled and skilled individuals. They compare these results to a general reduction of firing costs for all workers, in which case, the unemployment of the unskilled falls while the unemployment of the skilled increases slightly. They find that labour market tightness and unemployment of unskilled individuals are lowest under targeted reductions of firing costs for the unskilled, while total production and average productivity are highest under targeted reductions of firing costs for the skilled workers.
Alonso-Borrego, Fernandez and Galdon (2005)	General equilibrium model that introduces the possibility to study the effects of labour laws that liberalize the use of temporary labour contracts, which are common in several European and Latin American countries.	They calibrated their model to Spanish longitudinal establishment data. Their simulations indicated that the introduction of temporary contracts increases unemployment, reduces production, and increases productivity.

Source: The author's own, based on cited texts.

In sum, the advantages and pitfalls of the models suggest that a mixed approach could be useful, using both logical assessments and quantitative information, having always in mind the pitfalls of every option.

3. Labour and labour-related law and its effects on MSEs

Micro and small (MSEs) firms in Latin America explain a large proportion of employment and are usually believed to have more problems to comply business and labour regulations.[39] Their low productivity, problems of information and even characteristics associated to the way they function have been argued as limits to the compliance levels.[40]

Labour and labour-related legislation in Latin America has always considered all workers as equal regardless of the size of the firm where they work. It was assumed that it was not only in the interest of workers but also of firms, because this helped to regulate competition among them. Even in the great labour reform process of the 90s in most countries of the region, we did not observe special attention to MSEs in labour and labour-related laws and it was believed that if the labour market became more flexible for all, then MSEs would have more incentives for compliance. However, a new tendency towards special labour regimes for MSEs is being observed in several countries. It started in Peru and Paraguay but similar arrangements are currently being discussed in Ecuador and Venezuela.

Should firms of different sizes be treated differently by labour and labour-related Laws? This debate is not new in the region but it certainly has deepened in the last decade. According to Morgado (2006), the main arguments in favour of different treatments are three. First, labour and labour-related laws introduce a cost burden too difficult to handle by MSEs, and for that reason generate an incentive for their informality or impede the formalization. Second, it is important that these enterprises are supported since they employ most of the labour force, especially when the growth in formal employment remains sluggish. Third, it is believed that a separate legal arrangement for the SME sector allows them to be connected to the medium and large enterprise (MLE). In general, there are arguments in favour and against, a different legislation for MSEs (Table 8). Arguments in favour indicate that MSEs can not afford costly labour and labour-related laws usually conceived for large firms. Arguments against these proposals indicate that this kind of initiatives imply a different treatment among workers, with moral risk of possible exclusion, since this type of system could encourage labour market segmentation, thus limiting social mobility.

The question is then if these exceptions or regimes really work or if there are other ways to improve compliance among MSEs. The Latin American experience can provide some empirical elements to this debate.

[39] It is interesting to note that MSEs definitions in Latin America are very diverse. Not only not all of the countries use the same criteria (some use the number of workers, some other combine it with the sales level or the assets level) but even those that use the number of workers do not use the same limits in each case to distinguish between micro or small enterprises (see Figure A2 in the annex). Why do these limits vary so much? A quick review indicates that these limits do not have any relation with the level of development of the countries and evidently require further research and harmonization.

[40] Giordano (1995) cited by Sanchez-Castañeda (2006), gives five reasons for specific labour relations for MSEs: a) lower specialization in duties and functions; b) different conformation of the worker-employer relation; c) lower administrative capacity; d) financial weakness and difficulties to cover labour debts; and e) lower productivity and higher labour share in the cost structure.

Table 8: Arguments in favour and against special labour and labour-related laws for MSEs

Pro	Against
✓ Productive integration ✓ MSEs have special characteristics: • Less specialization within the firm • Different employer- employee relation • Less administrative capacity • Low financial capacity to cover debts • Low productivity and high labour share on costs ✓ There are already differences in some norms in most countries ✓ There are problems of effective application of law among MSEs	✓ It implies a different treatment among workers ✓ There are opposed interests • This changes worker´s protection for SME protection ✓ Moral risk • Employers can reduce their firm sizes • This can limit firm growth ✓ Exclusion: • This limits social mobility for workers

3.1 The current situation

Most countries in the region actually have labour and labour-related regulations that are differentiated based on the firm size. As indicated in Table 9, most of these differences are related to the right to unionization, the application of special rules for firing (especially collective dismissals), and the use of some administrative, training or profit-sharing exceptions.

Table A4 in the Annex presents a more detailed summary of these practices reported by several authors. In Argentina MSEs have a more flexible access to hiring contract modalities and have special regulations on OSH and training, can redefine workplace activities, annual leave, complementary payments and the change of the regime of contract termination. In Chile workers below legal age can work at night only if other members of their families work at the same place. Firms with less than 25 workers are not required to comply with the 85 per cent quota of Chilean nationals at the firm. Firms with less than 9 workers are not required to have internal personnel policy nor the OSH policy. Also, in firms with less than 50 workers, 8 of them can form a firm union. For firms with more than one establishment, workers can form a union if they add up 25 or more workers or 30 per cent of the total number of workers and the number of representatives also vary for firms with less than 25 workers. In Chile, fines for violation of labour regulations also vary for small enterprises.

In Colombia depending on the number of workers, regulations vary in the entry registry, labour contract certification, OSH regulations, work uniforms (clothes), "*auxilio de cesantía*" and collective dismissals. In Costa Rica, based on the number of workers, there is a difference on the percentage of positions within the firm reserved for national workers and their labour share (in the total payroll). In Ecuador, based on the number of workers, there are differences in collective dismissal procedures. In Panama, according to the number of workers and the economic sector, some regulations related to the ending of the labour contract do not apply and some administrative procedures are not required. Also in Venezuela, based on the number of workers, some benefits differ; such as, mandatory scholarships for children of workers, nationality rules, mandatory child care places, medical services, collective dismissals.

Table 9: Common exceptions/differences of labour and labour-related laws on MSEs in Latin America

Country	Special Regime (a)	Hiring	Firing	Specific minimum wage (b)	Unions and collective bargaining: minimun # of workers	Specific contributions to social security	Other differences/exceptions
Argentina	√	√	√		n.a		Training, annual leave, payment facilities.
Bolivia					20		
Brazil	√				n.a	√	
Chile					8		Night work, share of national workers, internal personnel policy, training, penalties facilities.
Colombia		√	√		25	√	Entry registry, internal personnel policy, uniform and *auxilio de cesantía*
Ecuador			√	√	30		
Mexico					20		
Panama			√	√	40	√	
Paraguay	√	√	√		20	√	Internal personnel policy
Peru	√		√		20		
Uruguay					-		
Venezuela			√		20		Share of national workers, nurseries, health centers, profit sharing.

Source: The author's own.

A check (√) means that the country has an exception. n.a: not available.

A negative case is the exception in the right to unionize and collective bargaining. In most countries, workers working for small firms (below a number of workers) can not organize unions, although they can participate in more aggregated unions. This also limits their right to representation since usually social dialogue mechanisms include only organized workers. An interesting question here would be what is the rationality for these limits, why do these limits vary among countries (why 20 workers in most cases?), what have been the effects of these practices and is there another way to promote MSE workers' representation.

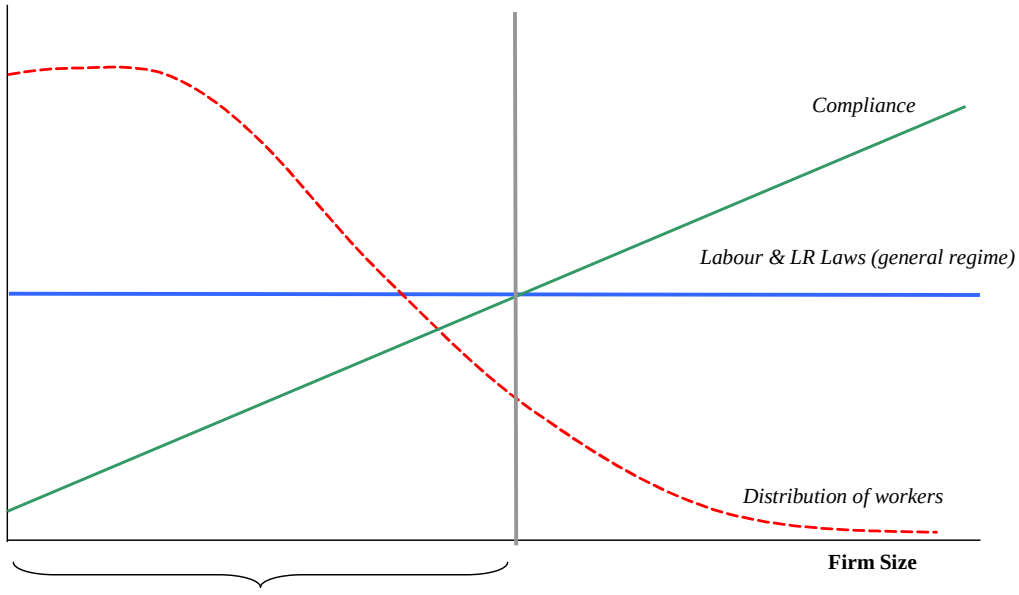
There is another negative aspect under the column "other" in Table 9. Included are some procedures usually applicable for large firms, such as the internal personnel policy requirement, that may not apply to smaller firms.

In general, we have not found studies regarding the economic effects of these special regulations for firms, and neither have we found documents explaining the rationality for these decisions. In general, this seems to express that impact evaluations of these laws are not common practices, and these laws are expected to work under the rationality that smaller firms have more difficulties for complying. However, several questions arise from this evidence. Do these differences really work? Why does the number of workers vary even within a country for theses exceptions? Why do these exceptions apply for some rights and not for others?

3.2 Improving compliance among MSEs: different approaches

In any case, even with these exceptions or differences, there is a problem with the effective application of labour and labour-related laws among MSEs. Inspection and supervision of small business compliance represent a higher cost for governments and at the same time MSEs have more difficulties to comply since their resources are smaller and have limited information and abilities required to comply. To analyse this issue from the economic point of view, we use Figure 4, which assumes some kind of normalized indexes for all variables presented.

Figure 4: Labour and labour-related laws and MSEs – the problem



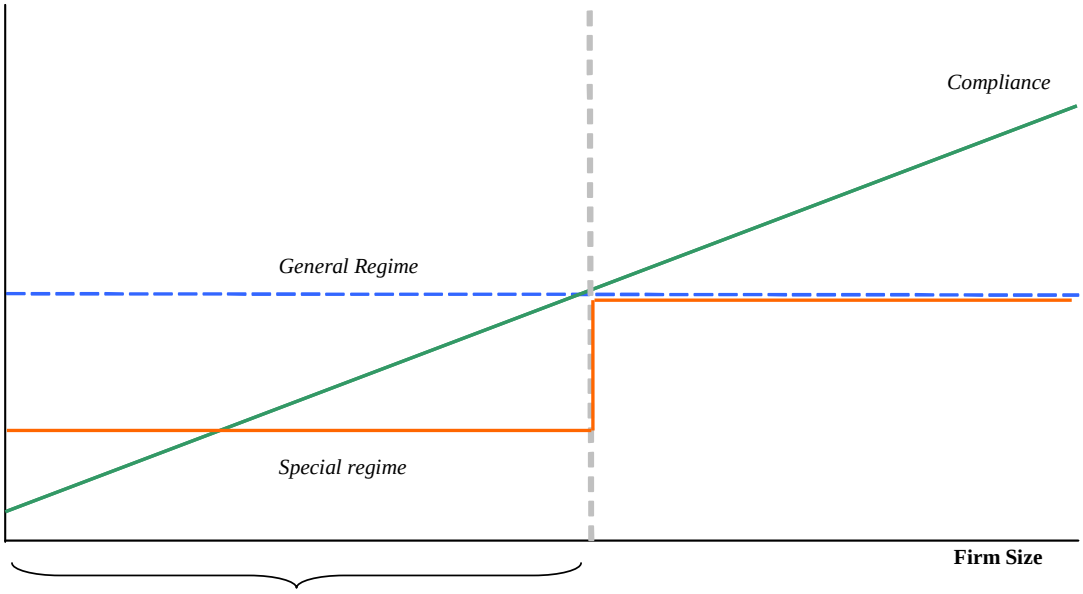
The above figure shows the stylized fact that most workers actually work in MSEs. Also, that there is a positive relation between compliance and firm size, probably because larger firms are more productive and hence have incentives to comply; smaller firms however do not have those incentives. Therefore, setting equal labour standards for firms of all sizes generate incompliance in the smaller firms, which – by the way – explain the largest share of the labour force. This incompliance is exacerbated by the fact that the capacity of the authorities to enforce regulations has also a positive relation with firm size.

Probably using a combination of these arguments, in recent years we observe a marked tendency in Latin America towards the reform of labour and labour-related laws with SME criteria. According to Vega (2005), almost half of the Latin American countries have already reformed their labour and labour-related legislation in order to support and promote these types of firms, although most of them very timidly. In some countries, the legal references are dispersed in the general legislation or implicit in the labour codes. In other cases, such as Peru and Paraguay, there are special regimes, probably because in these countries the changes have had negative aspects. Morgado (2006) distinguishes two forms of labour and labour-related legislation for MSEs: a) a general regime with some exceptions for MSEs, and b) special regimes of labour and labour-related laws for MSEs. In this chapter we analyse these two alternatives, with the scarce existing evidence in some Latin American countries.

3.2.1 Solution 1: special labour regimes

The simplest solution is to generate some kind of special treatment or special regime for MSEs (Figure 5). The general regime holds only for medium and large firms, and for MSEs, lower labour standards apply.

Figure 5: Labour and labour-related laws and MSEs: a special labour regime



Although Peru and Paraguay are illustrated to having specific legal provisions for MSEs (Vega, 2005), such provisions are also present in Argentina and Brazil. Many other countries have also specific labour regulations for the MSEs with the purpose of generating jobs. Ecuador and Venezuela are already discussing specific labour laws for MSEs.

In Peru there has been a special regime since 2003, which reduces drastically non-wage labour costs, but this system has not worked as expected by the policy makers. Since 2002, Paraguay has had a special regime although it is restricted only to first job workers, especially young workers between 15 and 28 years old, including professionals with no work experience. All firms including small firms registered at the Labour Authority are the beneficiaries of this provision. This law reduces firing and hiring costs for firms that hire these types of workers and it includes exemptions from provisions for the old age pensions payments, social security payments, family allowance, annual leave and dismissal costs. The requirements for firms are simple, and the most important are that they can not employ more than 20 per cent of their workers under this law and that they have to be currently paying social security contributions. Three years later, in September of 2005, no firm had registered for this system, according to a report by the Justice and Labour Ministry of Paraguay which is a sign that firms, even large ones, are not interested in this system. For this reason, even though this law exists in Paraguay, it does not work at all.

The Argentine Government approved in 2000 a law titled, “Promotion of micro, small and medium enterprises” (Law No.25.300), that tries to strengthen MSEs primarily through

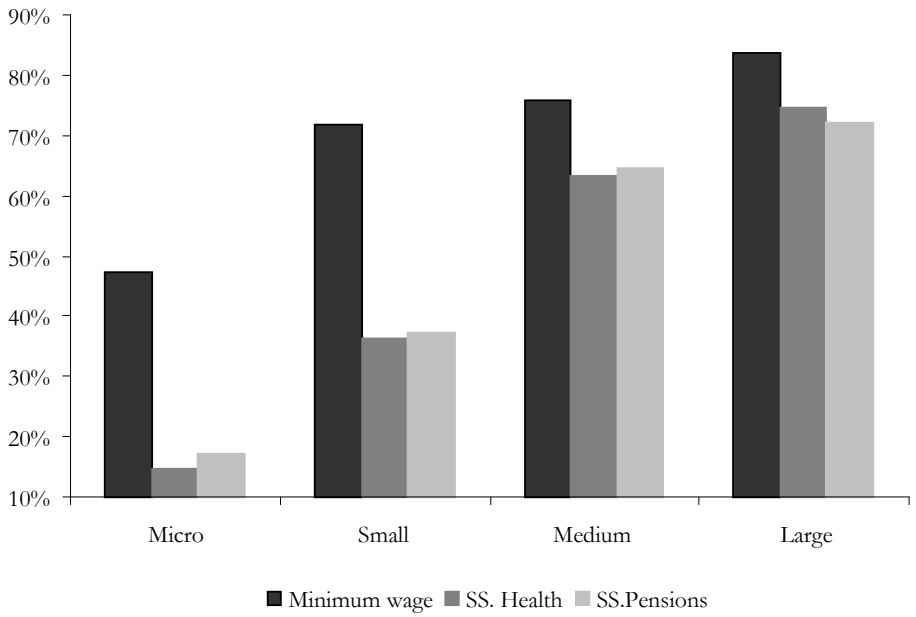
provision of credit (creating several funds for their development).[41] Only in one article of the law, there has been reference to providing labour and social security incentives for its compliance by the MSEs. Later in 2004, the Law No. 25877 complements the Law No. 25300 and states that firms with less than 80 workers will have reduced social security contributions, but only for the new employees. In Brazil, there is an SME law of 1999 that provides the institutional framework for its implementation, and further states that the Government will introduce in the future labour incentives and simplified procedures. No follow up to this law has been however found.

There is not much experience in the region with respect to the evaluation of the impact of these types of laws. The literature review indicates that detailed and primary data would be necessary in order to properly assess each case. We have found this kind of data only for the Peruvian case, but it certainly would be interesting to perform the similar type of analysis in all cases mentioned.

The Peruvian special regime

Compliance to labour regulations is lower among the MSEs in Peru, as in many other Latin American countries. In Figure 6, lack of compliance of the provisions relating to the minimum wage and social security contributions (health) are indicated by enterprise sizes in Peru. While there is some degree of lack of compliance in all firm sizes, these rates are clearly higher among smaller firms, specially the micro enterprises. Another striking result is that firms of all sizes comply more with the minimum wage than with the provision relating to the social security contribution.[42]

Figure 6: Compliance rates for minimum wage and social security contributions in Peru



Source: The author's own, based on household surveys. Compliance rates are estimated for private salaried workers.

[41] It is worth mentioning that Argentina is a case in which labour regulations have had enormous variations in the last two decades. While it was the country with the most severe reform (Vega, 2006), in the late 90s, a counter reform was initiated. However, special regulations for MSEs remain and recently they have been defined more accurately.

[42] This surely is related to the fact that in Peru, the social security system of health operates like a tax, in other words, it is not clear that these contributions finally benefit workers.

The Peruvian congress passed in 2003 the "*MSEs Promotion and Formalization Law (Law number 28015)*". The Government proposed three main arguments for this law: a) most of the Peruvian labour force works in MSEs (more than two thirds); b) labour productivity in MSEs is lower than labour productivity in larger enterprises (the relation is 5/1 is enterprises with more than 100 workers and enterprises with less than 5 workers are compared); and c) most of the problems of compliance are concentrated among the MSEs.

The most important feature of this law is that it creates a special labour law regime for MSEs, reducing drastically non-wage costs. Seemingly, high non-wage costs have made it difficult for MSEs to comply with labour and labour-related laws.

This law operates at three levels:

- It eliminates some benefits: the overtime premium for night work (35 per cent); special payments for holidays (called *gratificaciones* in July and December), a compensation for time of service (one monthly salary per year of work) and a family allowance (10 per cent of the minimum wage).
- It reduces some other benefits and reduces to one half the paid vacations period and the compensation for arbitrary dismissal.
- It makes the contribution to a pension plan optional. The pension system is based on workers' contribution so this element does not represent a cost to employers.

As a result of these changes, important non-wage costs to employers are reduced drastically. With regards to labour benefits, the costs to employers are reduced from 52 to 13 per cent of the wage cost. In addition, it is easier and cheaper to fire workers. Finally, from the workers' point of view, old age pension is optional, so he/she can decide to affiliate or not. In the case of non-affiliation, monthly reduction of 11 per cent from the wages is saved.

To be part of this system, firms need to register at the labour ministry with a simple declaration.

Box 3: The Peruvian special labour regime for MSEs

In 2003, Peru approved the MSEs Promotion and Formalization Law (law number 28015). Among other instruments, this law includes a special labour regime that reduces (in some cases eliminates) some labour and labour related benefits for workers of MSEs.

Characteristics of the labour regime for MSEs:

Benefit	General Regime	Special Regime	Unit
1. Labour			
Overtime premium for night work	35%	0	% of the salary
Compensation for arbitrary dismissal	1 ½ (max: 12)	½ (max 6)	monthy salary per year
Special holidays payments	2	0	monthy salary per year
Compensation for time of service	1	0	monthy salary per year
2. Labour related			
Minimum wage (MW)	500	500	soles per month
Family allowance	10%	0%	% of the MW
Social security (health)	9%	9%	% of the salary
Annual leave	30	15	days a year
Pensions	11% (mandatory)	11% (optional)	
3. Effect on labour costs			
Labour costs *	152%	113%	
Wage costs	100%	100%	
Non-wage costs	52%	13%	

* Estimated for the case of a worker earning MW and with children.

Although the minimum wage is the same for both regimes, this law reduces drastically some labour and labour related benefits to SME workers: it eliminates special holiday payments, reduces vacations to a half and makes it optional important benefits such as pensions. The immediate consequence is that non-wage costs paid by employers are reduced from 52 per cent in the general regime to 13 per cent in the special regime. (Pensions are not included in this estimate since they are paid by workers).

Has this special regime worked? No formal impact evaluation has been performed yet. However some studies have emphasized one indicator of success: the number of MSEs registered in order to benefit from this law.[43] The evolution of this registry shows (Figure 7) some 5 thousand MSEs had registered at the Labour Ministry after some 30 months of the existence of the programme.[44] Considering that in Peru there are more than 2 million micro enterprises, it is a disappointment that too few MSEs have had incentives for this special regime, considering the considerable reduction in labour costs involved.[45]

Why is this special regime not working as expected? The Labour Ministry argues that two problems seem to be important: a) the law is temporal and hence, MSEs may not be

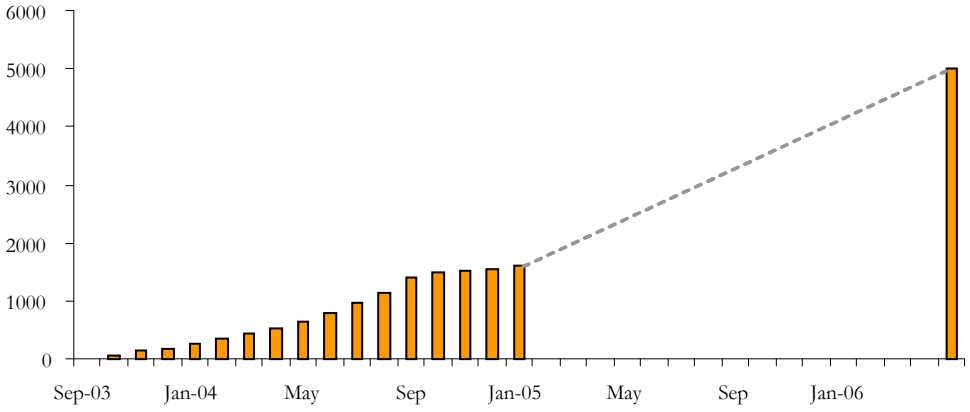
[43] According to the law, if a SME wishes to participate in this program (and actually in all the programmes associated with this law), then it has to register in the Labour Ministry.

[44] Vildoso (2006).

[45] If not for enterprises, is this working for workers? Probably not since the small number of firms involved represent a very small share of the labour market. Figure A4 in the annex confirms this view and shows that incompliance with the minimum wage is increasing, instead of reducing; incompliance with social security, health is not improving either and the percentage of workers without a signed contract remains high.

interested in a temporal programme only; and b) the law has not had a good communication strategy and many MSEs are not aware of this system.[46]

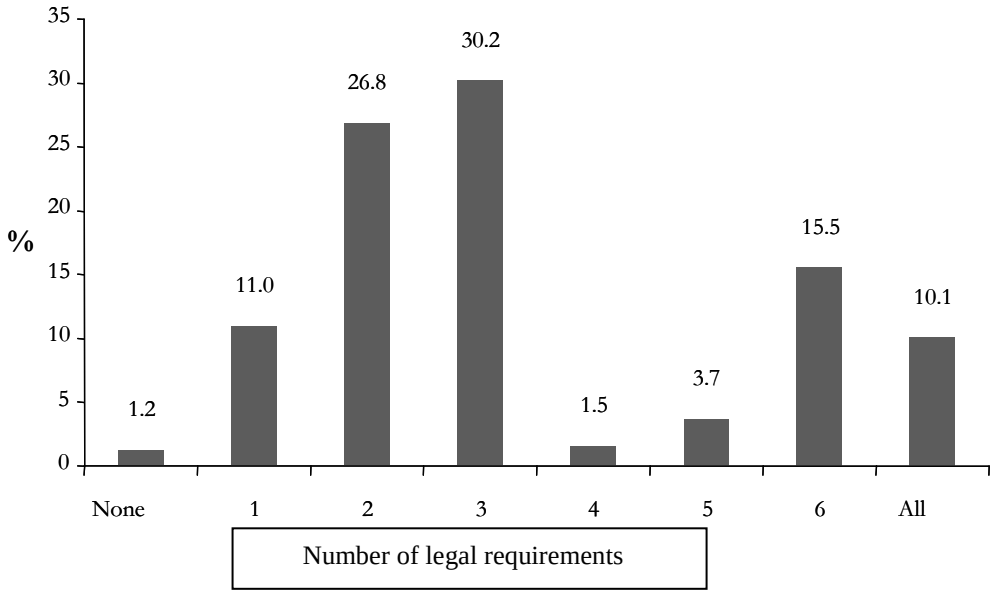
Figure 7: Evolution of the registry of MSEs for the special labour regime in Peru



Source: Labour Ministry.

The law seems to have forgotten about the characteristics of informality as witnessed in the last three decades. Basically, MSEs tend to be selective in their compliance with all legal requirements. This can be seen in Figure 8. Both the percentages of complete compliance as well as complete non-compliance tend to be low. Most firms are selective in their compliance and are thus concentrated in the middle. Most of them comply with some regulations. Many more MSEs comply with registration and taxation requirements and then only with the labour law.

Figure 8: Percentage of MSEs complying with legal requirements in Peru



Source: Chacaltana (2003).

[46] This has been pointed out by the Peruvian Labour Ministry (2004).

Therefore based on the above, the incentives of reducing non-wage costs do not seem strong enough. In Table 10, a rough comparison of the incentives involved in the formalization decision is presented and only non-wage costs and taxes (sales and revenues) are being considered. Although most assumptions in this exercise (such as the cost structure) are based on real data (drawn from a survey in 2001), this is obviously a simplification since it is based on a static comparison; and positive effects of compliance are only operationalized via the cost of credit, and therefore a more detailed evaluation (using data of those firms registered in the system) is needed. However, the picture of incentive based compliance is adequately presented. The idea is that if outcomes are not observed, then there is no impact.

Table 10: Incentives involved in the special labour regime in Peru

	Case 1		Case 2		
Category	**Full formal**	**MSE Law**	**Informal 1**	**Informal 2**	**MSE Law**
Labour costs	30	22	20	20	22.6
Wage	20	20	20	20	20
Non-wage costs	10	2.6	0	0	2.6
Materials	53.6	53.6	53.6	45	53.6
Raw cost	45	45	45	45	45
Sales tax	8.6	8.6	8.6	0	8.6
Total production costs	83.6	76.2	73.6	65	76.2
Financial costs	3.3	3	2.9	6.5	3
Total costs	86.9	79.2	76.5	71.5	79.2
Total sales (without sales tax)	100	100	85	85	85
Total sales (includes sales tax)	119	119	101.2		101.2
Gross revenue	32.1	39.8	24.7	13.5	22
Tax to the government	19	19	16.2	0	16.2
Gross Firm profit	13.1	20.8	8.5	13.5	5.8
Business tax (15%)	2	3.1	1.3	0	0.9
Net profit	11.1	17.7	7.2	13.5	4.9
Profitability	**13%**	**22%**	**9%**	**19%**	**6%**

Note: Informal 1: Labour informal but tax formal
Informal 2: Both labour and tax informal.

Four situations are compared for a small enterprise willing to produce the same goods at the same volume, so that their production costs are the same. First, we consider the case of a fully formal enterprise, i.e. it pays all labour benefits and all taxes. Labour costs are 20 per cent but since it pays all benefits it has to add 10 units more (non-wage costs are about 50 per cent in Peru). Materials of production cost 45 but since sales tax is 19 per cent, it has

to add 8.6 to the production costs. Financial costs are 4 per cent, the formal interest rate at the banks. For this case, the special labour regime is good because it reduces non-wages costs and thus increases the profitability rate, from 13 per cent to 22 per cent. The benefits come from the fact that reduced labour costs also require less financial costs. So the idea is that formal MSEs have an incentive to register in this regime. Also, potential new formal enterprises could have an incentive.

However, does this also work for the informal MSEs? Here we compare two informal situations. The first one is informal (informal 1) only in the labour issues, but is formal in the goods market because it pays taxes. The second (informal 2) is informal both in the labour and the goods market. We assume that they sell at a price that is 15 per cent less than the formal one and thus, their revenues are also 15 per cent lower. Informal 1 pays all taxes and also it has financial costs of 4 per cent. Informal 2 does not pay taxes and has higher financial costs (10 per cent). As a consequence, informal 1 gets a profitability rate of 9 per cent, less than the 13 per cent in the fully formal case. However, "informal 2" gets a profitability rate of 19 per cent.

Therefore, the Peruvian MSE special labour regime reduces non-wage costs, but at the expense of potentially increasing other formality costs (taxes and registry) in the goods market. If they register, then it is highly probable that they would be observed by the tax system. Hence, given the current tax structure, reducing labour costs could have the effect of increasing total costs because of the need to pay taxes, and therefore reducing the yield rates. This happens even if the firm is informal only in the labour market, and for any price level (the only requirement is that they are the same in all cases). So the lesson here is that for informal MSEs, this is not good enough. Any other fixed cost, such as registration costs, amplifies these differences.

The general lesson then is that this law is good only for those firms that have already decided to go formal and that informal MSEs would not have an incentive to formalize only on the basis of this law. This discussion then has two main implications for policy making. First, to make this system appealing, the tax structure for MSEs needs to be changed. Second, provide other (exogenous) incentives for formalization, such as access to markets, increased productivity, etc.[47]

3.2.2 Solution 2: General regime to all, with exceptions for MSEs

The second solution is a general legislation with some exceptions to MSEs. This is the case depicted in Figure 9. Regulations are flexible not on labour standards, but on the compliance curve. If this is low for small firms, then why not work directly with those firms and try to improve their compliance?

This requires knowing the reasons for non-compliance among MSEs. Theoretically, we can identify at least two main causes:

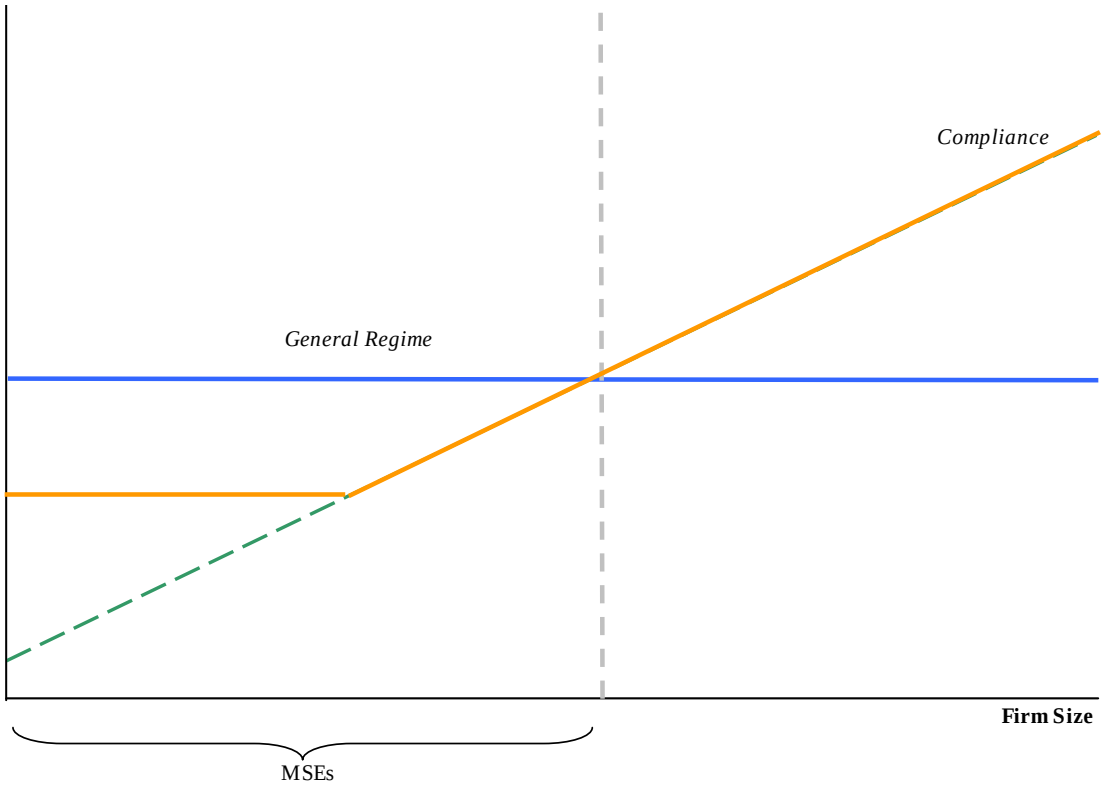
- Low capacity of the MSEs, which is related to their low productivity and/or lack of knowledge;

[47] An interesting issue is however if special regimes (marginal variables) affect labour productivity (structural variables). For example, in a high jumping competition, the minimum official mark could be lowered for some not so tall competitors. This would benefit small competitors for some time, but the question is if this procedure (lowering the mark) could benefit these competitors and make them grow or reach the official mark some day. This surely is an issue for a research agenda.

- Low capacity of the State to enforce compliance, because lack of budget, efficiency, too much bureaucracy (thought for large firms) organization, etc.

Therefore, always at the theoretical level, attacking some of the causes would increase compliance directly, without reducing labour standards. For example, a generalized increase in labour productivity across all firm sizes would move the compliance curve up-left and then the incompliance area would be reduced naturally. This would be the best way to reduce incompliance rates but it may take a while. In the meanwhile, some other measures could be taken.

Figure 9: Labour and labour-related laws and MSEs – special treatment for MSEs



For example, in Chile, there is a case in which this approach is being used. This is the case of the system that allows MSEs (up to 9 workers) to substitute penalties for training. This mechanism assumes lack of knowledge of the labour and labour-related regulation by MSEs. However, this is not a mechanism for not paying the penalty since MSEs are required to correct the situation that motivated the penalty.

This system is well oriented in the direction of directly increasing the compliance curve for MSEs. Although it is too early to find strong results, its main effect is that it has opened a line of thought that is challenging in Latin America. Thus, it has raised the question whether the labour inspection should be carried out in the same way in small and larger enterprises? In the Peruvian case for example, the labour inspection procedure is complex enough to last up to 5 days for a large enterprise. Obviously, MSEs could not afford such an inspection, and simpler procedures would greatly improve.

Box 4: The substitution of penalties for training in Chile

The 2001 labour reform included an initiative that allows employers of micro enterprises (up to 9 workers) that have labour infractions, to substitute the penalty for the attendance of a training course (no longer than two weeks), on labour laws given by the Labour Direction. Upon request by the firm, inspectors decide and authorize if the firm can use this mechanism. This benefit is used only once a year and since the moment of approval, the employer has up to two months for taking the training course. Using this benefit implies that the employer has corrected the situation that gave rise to the penalty (Vergara, 2005).

Impact evaluations using longitudinal data (Montero, Reinecke and Zapata, 2006) show that – on average – participating in these courses do not reduce significantly the probabilities of not complying with labour laws again. However, effects are stronger among smaller firms.

In Europe some interesting experiences in this perspective are being taken. Although, in Europe, the problem is not as big as in Latin America, they do have problems of undeclared work especially in certain occupations or activities, such as domestic work (Table 11).

Table 11: Some practices in Europe to end undeclared work

Experience	Description	Results
Service vouchers (Belgium)	This programme focuses on domestic work. Households buy vouchers (6.2 pr hour of work, the real cost is 19.5 and the difference is paid by the government) in order to pay for services performed by certified firms, that hire unemployed persons. After 6 months, the firm has to offer an indefinite contract.	Expected result: creation of 25 thousand new jobs.
Cheque Emploi Service (CES, France)	Domestic workers are hired without the complex administrative procedures and labour contracts, paying the wage via a check that can be purchased in a bank. The household gets a 50 per cent reduction in taxes on the value of the check.	800 thousand households use the CES system, thus legalizing undeclared work.
National Commission for the emergence of irregular work. (Italy)	It is an initiative that allows workers or employers that declare having operated illegally to formalize their situation with respect to taxes, OSH and social security contributions. In exchange, employers pay reduced penalties, social security contributions in three years to offset the impact of increased labour costs. Workers pay reduced contributions.	n.a
3 pillars national programme (Sweden)	The programme includes actions such as: ➢ Change of attitude: information campaigns, simplification of the regulatory framework ➢ Increased risk of sanctions: centralization of information, more resources for fiscal authorities and antifraud policies ➢ Incentives: link of old age pensions with lifetime contributions and tax deduction upon bill presentations	n.a
National council against black market (Switzerland)	The emphasis is on improved inspections and sanctions, so the risk of financial loss is minimized even with albeit reduced liberty. Measures are: cross check of information among public agencies and application of sanctions	n.a
Minijobs (Germany)	It is a programme of jobs with reduced social security contributions	By the year 2003, some 580 thousand informal workers have been declared.

Source: Renoy et al (2004). n.a.: not available.

According to Renoy et al (2004) these programmes are diverse including subsidies by the government, simplification procedures for contracts, programmes for the emergence of irregular work, awareness campaigns, and improvement of enforcement procedures. Also, in Germany there is a scheme in which reduced social security contributions are the key variable (the Mini jobs programme).[48] Some results are included in the same study, with respect to the number of workers involved and they seem promising. However, we have not found any impact evaluation document on these mechanisms.[49]

3.3 A more general approach: MSE promotion laws and specific institutions for MSEs

Special labour regimes are usually one part of a more broad set of instruments. In some cases, these promotion instruments are also summarized in a sort of MSE specific law. A recent study by Conindustria (2001) has found MSE specific laws in Colombia, Argentina, Mexico, Brazil and Venezuela. (Table 12; we have added the case of Peru). As we can see in this table, these laws include "labour incentives" only in Argentina, Brazil and Peru.

SME laws usually cover all workers but sometimes cover workers of one sector only, usually concentrate on other aspects of the business environment of MSEs, such as credit, fiscal incentives, government expenditure, training and technical assistance, administrative simplification procedures and export incentives. As we saw in the case of Peru, the impulse for formalization usually does not come mainly from the cost equation in the labour market, but from restrictions at the goods markets. For these reasons, some countries have undertaken this issue directly.

[48] Actually this would be a typical case for the solution 1 example.

[49] It is worth mentioning that in developed countries there is more experience in the application of formal evaluations to assess the effects of labour law on MSEs, and using different approaches. For example, Edwards, Ram and Black (2003), using a case study approach analyse the 1997 changes in labour and labour-related legislation in the UK, that included new laws on trade union recognition, a National Minimum Wage (NMW), working time regulations, and rights in relation to the work-life balance. Contrary to the common view that these laws would increase costs and reduce employment and/or profitability, this study argues regulation can have 'positive' as well as 'negative' effects analysing in detail the mechanisms involved within the firm exposed to these changes. They find that "*the impact of employment legislation on small firms is mixed, and is contingent on the market context and the individual situation of each firm. Indeed they find that effects mainly arise from the context of the legislation as opposed to its content. Therefore when analysing the impact on small firms, the focus should not be on the impact on small firms as a whole but rather the impact of specific legislation under certain circumstances.*"

Table 12: MSE promotion laws in Latin America

	Colombia	Argentina	México	Brazil	Venezuela	Peru
Sectors	All	All	Industry	All	Industry	All
Covered population						
Handcraft	√		√			
Micro enterprise	√	√	√	√		√
Small enterprise	√	√		√	√	√
Medium enterprise	√	√			√	
Instruments						
Credit	√	√	√	√	√	
Fiscal incentives	√		√	√	√	
Government exp.(compra Estatal)	√	√		√	√	
Tech. assistance and training		√		√	√	√
Administrative simplification	√	√	√	√	√	
Labour incentives		√		√		√
Exports incentives	√	√		√	√	

Source: Based on Conindustria (2001).

In Latin America, an interesting institutional mechanism is the case of Brazil, where the legal and institutional framework for MSE support has two main bodies. First, there is a legal mechanism oriented to give a different and simplified treatment to MSEs regarding not only labour issues, but other aspects, such as taxes, credit, government expenditure, training and even a special treatment with regard to imports and exports. The Law No. 8.864 (March, 1994) and then Law No. 9841 (October, 1999), were passed for a different and simplified treatment to MSEs regarding such aspects as administrative procedures, taxes, old age pension, labour, credit and economic performance. MSEs are defined based on gross sales and the following benefits are available for the MSEs:

- Taxes: simplified accounting requirements, simplified documents issued by MSEs and simplified annual declaration.
- Labour: simplified processes in order to make it easier to comply with labour and labour-related laws, elimination of bureaucratic restrictions not compatible with the simplified regime, minimum payments for OSH and exception to some articles of the labour code related to the annual leave.
- Credit: Public institutions creating favourable conditions for SME access to credit and tax incentives for private financial institutions that give them credits. The government can guarantee MSEs when they require credit.
- Other: No less than 20 per cent of the federal funds oriented to entrepreneurial and technological training oriented to MSEs, having priority in government expenditures and a special treatment regarding imports and exports.

Second, there is a specialized institution, called the Brazilian Service for MSE Support (SEBRAE) created in 1972 with the specific purpose of facilitating the business environment in five areas: taxes, less bureaucracy, access to credit, technology and knowledge for the MSEs. Unfortunately, in this quick review we have not found empirical assessments of these policies although they seem promising.

On the other hand, in Colombia we have found several interesting experiences on MSE promotion. First, this country had MSE National Programmes (PNM) since 1984 until 2000 when this strategy was replaced by MSE laws (first version 2000 and second in 2004). Second, there is a long tradition of exercises that intend to evaluate the impact of these promoting laws and the public and private sector cooperation. Third, although it started in 2001, since 2004, some 26 thousand MSEs are surveyed every year in order to provide information for policy making (this may be the largest MSE survey in the region and probably in the world).

Box 5: SME national programmes in Colombia

Since 1984, Colombia has National Plans for Micro Enterprise Development (PNM). These programmes were issued as policy documents (different from laws).

1) PNM 1984-1988: concentrated on administrative training, technical assistance and credit. It created an evaluating council and supporting committees in order to implement the strategies.

2) PNM 1988-1990: marketing strategies, technological development, entrepreneurial organization, legal framework, entrepreneurial training, and credit. It created the National council of the Micro Enterprise.

3) PNM 1991-1994: An evaluation of the previous experience indicated that those PNDM had reduced coverage, too much emphasis on credit, duplicated functions, and low technological development. Therefore this PNM was reoriented towards the improvement of technology, marketing, finance and managerial performance.

4) PNM 1994-1998: Implemented a system of integral finance, a programme for technological services and a new industrial framework.

The impact evaluation exercises were implemented under a system, called the System for the evaluation of public support to MSEs that has been used at least in 1997, 1998 and 2001 with specific surveys with a longitudinal design. For example, Cabal et. al. (1998) – using this data and a log model – finds that in the period 1997-1998 the PNM had a clear impact on the probabilities of survival of firms: the probability of closing the firm was 19 per cent for participating firms while this probability was 42 per cent for non participating firms, after controlling for other variables. More interestingly, they found that this effect was stronger when credit was combined with technical assistance in contrast to credit alone. This exercise was repeated later by Castañeda and Cubillos (2002) for the period 1998-2000, and they also found that participating in the PNM reduced the probability of closing. Later, the second version of the MSE law was also evaluated, this time using a qualitative approach. This study concludes that the new version of the MSE law (Law No. 905) was not consulted with social partners and worsens the problems of the former law (509). They argue that since this new law generates two parallel systems and that critical problems – such as tax, sanitary and credit regimes for MSEs – remain. They conclude that an important lesson is that the roles of the government and the civil society have to be clear for an effective support to MSEs, and that issuing a law is not sufficient to promote MSEs, especially when this law is not derived from consensus.[50]

All these cases show that most countries in Latin America understand that a secure way to improve compliance and improving workers conditions, without reducing firms' profitability, is to increase labour productivity and firm's competitiveness. In other parts of the world, such as in Europe for example, other approaches, such as institutional mechanisms are used to reduce undeclared work – such as prevention, enforcement and awareness (see Figure A7 in the Annex). However, as Marcon (2006) mentions, we have to

[50] Note that in a quantitative approach to evaluation, these types of conclusions could not be derived.

take into account that in Europe, the problem seems to be qualitatively different from Latin America. Not only the informal economy explains a minor share of the labour market, but contrary to Latin America, where these activities are visible, in Europe most of these activities are undercover or illegal. For these reasons, caution must be taken when comparing these experiences.

4. Conclusions and agenda

This report provides results of the first stage of a two stage research, regarding the economic implications of labour and labour-related laws on MSEs. The first part of the report provides a quick review of the existing literature on this subject and it is expected that the second section provides evidence from empirical research findings – basically primary and comparative data. This report concentrates on the review of the Latin American experience although some references are given for countries in other regions.

Since MSEs provide a large share of employment in the labour market, a tendency towards a separate labour regulation for MSEs has been witnessed in Latin America. The literature review points out the most common economic effects in the region, along with the methodological approaches and pitfalls utilized in detecting such effects. Most of the literature seems to focus on a few variables; such as a specific relation between a particular legal provision and one or two economic variables, without much examination of the possible positive effects of the legal provisions. Most of the economic studies focused on general effects of laws, although there may be different results when viewed in terms of the firm size. Specific literature on the impact of labour law on MSEs is certainly scarce although a diverse set of mechanisms exists in the region (at least in Colombia, Brazil, Chile and Peru) which may be worth examining in greater detail.[51]

In any case, some interesting lessons arise from the present review. First, some interesting findings have come to light in relation to the regulated and unregulated sectors (corresponding to formal and informal economies in many ways). Theoretically, there are two main options in a situation in which a labour market is divided between a sector covered by the regulation and another sector that is not covered by the regulation.[52] One approach seems to lower the standards of the regulated sector to provide opportunity for the unregulated sector to raise its standards simultaneously. Another approach could be to work directly with the unregulated sector to detect why compliance rates are so low among them. The first strategy has already been implemented in several countries in Latin America. However, after more than a decade of reforms, what are the reasons why informality rates are still rising? One explanation may be the structure of Latin American labour markets.

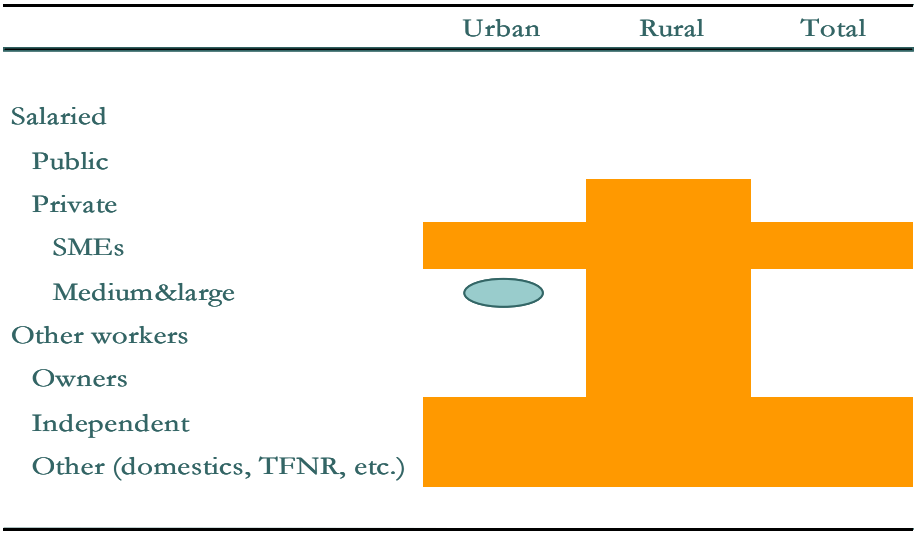
As presented in Figure 10, Latin American Labour markets have large shares of workers in the MSE sector as well as independent, domestic and family workers besides having a large pool of workers in the rural areas. The percentage of workforce generally covered by the labour and labour-related regulation is rather small, represented by a small circle, usually concentrating on medium and large enterprises. This fact has been used to justify labour reforms in the past. However this fact can also explain why those reforms did not produce the expected results: those reforms assumed that the large share of workers in the unregulated sector could be incorporated into the small circle of protected workers. This meant that reformers expected this small circle would grow and absorb the huge unregulated sector as a result of only labour law reforms. However, it has been ignored

[51] Why this literature has developed so little in the region. There could be several explanations and the lack of experience with evaluation of any law in general could be one of them. Another reason could be that in Latin America, the development of firm level data is very limited, especially for small firms (we have excellent household data but labour demand analysis requires firm level data). On the other hand, labour and labour-related laws in Latin America vary too much in short periods of time. Finally, in most Latin American countries, MSEs workers – the most interested in these evaluations – have limited rights to representation and voice.

[52] Freeman, Richard (2005).

what really drives the size of this circle, which is the magnitude of labour productivity determined by other variables. The reform process also seemed to be oblivious of the fact that the effect of reforms takes rather long gestation period before any results are evident.

Figure 10: A simplified view of the Latin American labour markets structure



Source: The author's own.

Secondly, regarding the economic implications of the labour law, the above review has detected diverse effects. In some cases, such as the fundamental rights, it is very clear that law and its effective application should prevent intolerable situations. Currently, there is a general consensus about the Fundamental Principles relating to child labour and forced labour, which should not exist since these practices have both social and economic implications.

In other types of law however, there are positive and negative economic effects, with the net effect being important. The literature review in this report concluded that most studies focused only on one parameter, usually the one related to negative effects with positive effects being rarely assessed. A more balanced approach is then needed in order to avoid, as much as possible, to assess both possible positive and negative effects. At the micro level, labour and labour-related laws can protect workers and increase their bargaining power, but this protection also may mean economic implications affecting employers´ incentives to growth and employment generation. At the macro level, labour and labour-related laws introduce equality in the labour market but, since it has costs, this can also affect efficiency and aggregate economic variables.

Hiring and firing laws regulate job and income security (entries and exits), and therefore they affect labour turnover, labour demand and productivity. Unions and collective bargaining regulations seek to equate bargaining power, but this affects profitability and could affect productivity. Payroll taxes always take resources out of the labour market and therefore always have negative effects especially on labour demand. This is different in the case of social security contributions, especially when there is a return for these contributions, for example, in the form of reduced risk at work or worker-related risks. It would be useful and interesting to analyse what net economic effect payroll taxes or social security contributions have. When social security contributions provide negligible or no return to workers or firms (due to systemic inefficiencies), they act exactly like a payroll tax. Finally, in the case of the minimum wage, the regulation attempts to reduce

abuse in the labour market, introducing wage equality but this can also affect the firm's labour demand.

Table 13: Labour and labour-related laws and most mentioned economic effects

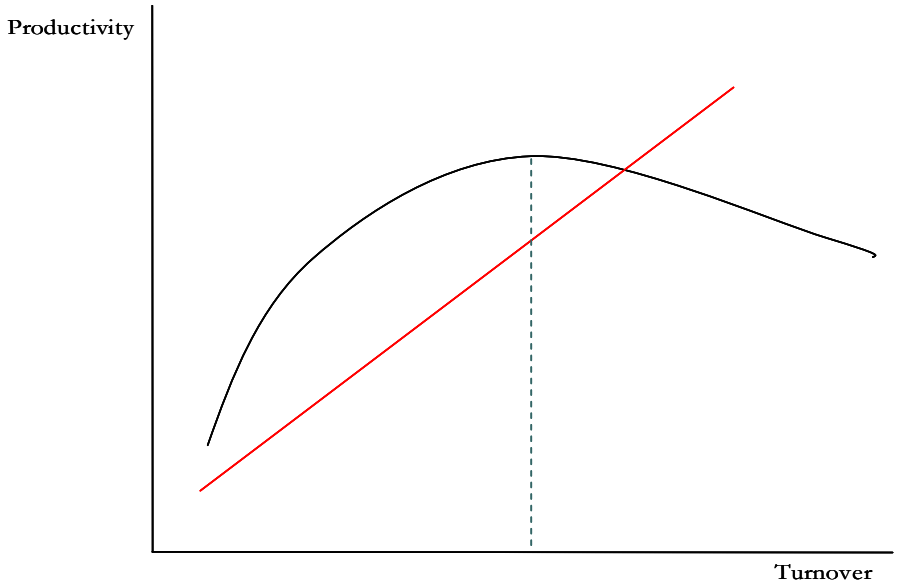
Labour and labour-related laws	Most common economic effects
Basic rights	• Unfair competition • Human rights violations
Hiring and firing	• Job and income security • Turnover and productivity
Unions/collective bargaining	• Bargaining power • Productivity and profitability
Payroll taxes and social security contributions	• Risk administration • Labour demand
Minimum wage	• Wage equality • Labour demand
Other procedures	• Compliance • Incentives

Source: The author's own.

With the knowledge that both positive and negative effects occur, the question is then about magnitude of such effects and the offsetting capabilities as regulatory changes are introduced. Therefore, laws do not need to be "**minimal or maximum**"; they need to be "**optimal**". The discussion about minimum laws or maximum laws is normal among social partners since the labour relation is not only complementary but also is competitive. However, from the point of view of the law (in other words, the State), balance is required.

This point can be better expressed with an example from the hiring and firing regulation that has been heavily reformed in Latin America in recent years. Since these regulations affect turnover and productivity then the question is about the form of the relation between these two variables. Some people seem to think that this relationship is linear, since they are always trying to reform firing costs no matter what the current situation is. If this relation is linear, then higher turnover would always increase productivity (via increased efficiency). However, empirical evidence seems to show that this relation is not linear but rather concave (see Figure 11). In this case, turnover increases productivity only up to a point, beyond which higher turnover means less productivity. This is the finding of Harris, Tang and Tseng (2002) for the Australian case, in which they find a positive effect meaning that still further reform in hiring and firing regulations in that country could improve labour productivity. For the Latin American case, Chacaltana and García (2004) found a negative relation in Peru meaning that in this country further reform could reduce labour productivity.

Figure 11: An example of balance – the relation between labour turnover and labour productivity



Source: The author's own.

Thirdly, a tendency towards creating specific legal provisions for MSEs in Latin America has been found. Reasons for this tendency are specific characteristics of MSEs, the type of labour relations within them and their lower productivity levels that impose restrictions to some procedures or regulations in the context of traditional labour relations, non-liquidity constraints, and the existence of important collaterals or rapid access to financial markets.

On the one hand, countries such as Peru and Paraguay are implementing special labour regimes, in Peru specific for MSEs and in Paraguay for the youth (including MSEs). The evidence however shows that in Paraguay no firm has used this system yet after three years of existence and in Peru five thousand out of two million firms are using it. This seems to indicate that the mere reduction of social protection or workers' benefits through labour law reforms is not enough for encouraging small enterprises to formalize (Morgado, 2006). The incentive for formalization seems to come from outside the labour cost equation. Particularly, the tax costs and labour productivity seem to be more powerful instruments for formalization than the reduction in workers' protection. On the other hand, in Chile, the approach seems to be to address directly the problem of low compliance among MSEs attacking one of its causes, lack of knowledge. Although impact data is not clear yet, this provides a new approach for tackling the challenge and therefore poses a new agenda for reform on procedures, both on the labour relation and the inspection service.

Considering these evidences and lessons, it is clear that the second stage of this research is needed, especially considering the rich experience of approaches being used for the promotion of MSEs in the region. In particular, although some evidence about what works and what does not has been provided by this quick review, a detailed analysis of specific country experiences (such as the one in Peru) could provide more information. For this purpose a selected number of comparable cases would be needed as well as a uniform research framework (Chile, Colombia and Brazil for instance). For example, even though public efforts to support MSEs have more or less common objectives (to support MSEs and to improve MSEs workers´ conditions), the scarce evaluations found do not review the same variables, and indeed they analyse different performance indicators such as the probability of complying after a period, or the survival rate of MSEs, or employment generation.

Another – more complex – set of questions would be what works better: labour cost reductions, tax reductions or simplification procedures? Do they work better alone or combined? How do these effects vary under different scenarios for labour productivity evolutions? For these types of studies (detailed country analysis or comparative evaluations) primary data on each country experience is needed even if these assessments do not include econometric considerations (econometric analysis would need even more detailed data at the firm level).

References

Aidt, Toke and Tzannatos, Zafiris. 2002. "Unions and Collective Bargaining: Economic Effects in a Global Environment" (Washington D.C., The World Bank).

Aguirregabiria, V. and C. Alonso-Borrego. 1999. "Labour Contracts and Flexibility: Evidence from a Labour Market Reform in Spain". Universidad Carlos III de Madrid, Working Paper 99-27.

Alvarez, F. and M. Veracierto. 1999. "Firing Taxes and Temporary Contracts in an Equilibrium Search Model". Mimeo, Federal Reserve Bank of Chicago.

Alonso-Borrego, C., Fernández-Villaverde, J. and Galdón-Sánchez, J.E. 2005. "Evaluating Labour Market Reforms: A General Equilibrium Approach", NBER Working Papers 11519.

_____. 2004. "Evaluating Labour Market Reforms: A General Equilibrium Approach". Penn Institute for Economic Research Working Paper 2004-16.

Angrist, J. and A. Krueger. 1999: "Empirical Strategies in Labour Economics," Chapter 23 in O. Ashenfelter and D. Card, eds., *The Handbook of Labour Economics*, Volume III, North Holland.

Ashenfelter, O. 1978. "Estimating the Effect of Training Programs on Earnings," *The Review of Economics and Statistics* No.60, pp.47-57.

Ashenfelter, O. and Card, D. (1985). "Using the Longitudinal Structure of Earnings to Estimate the Effect of Training Programs on Earnings", The Review of Economics and Statistics 67 (1985), pp.648-66.

Auer, Berg and Coulibaly. 2005. "Is a stable workforce good for productivity?" *International Labour Review*, Vol.144-3.

Autor, David. 2003. "Outsourcing at Will: The Contribution of Unjust Dismissal Doctrine to the Growth of Employment Outsourcing," *Journal of Labour Economics*, 21(1), pp.1-42.

Autor, D., Donohue, J. J. III and Schwab, S. J. 2002. "The Costs of Wrongful Discharge Laws," NBER Working Paper No. 9425.

Barron, John M., Fuess, Scott M. Jr. and Loewenstein, Mark. 1987. "Further Analysis of the Effect of Unions on Training (Union Wages, Temporary Layoffs, and Seniority)". *Journal of Political Economy*, Vol. 95, No. 3, pp. 632-40.

Bentolila, Samuel and Bertola, Giuseppe (1990). "Firing Costs and Labour Demand: How Bad Is Eurosclerosis?" *Review of Economic Studies*, No.57, pp.381-402.

Bertola, Giuseppe (1990) "Job Security, Employment, and Wages". *European Economic Review*, 54(4), pp.851-79.

Blanchard, O., and P. Portugal. 2001. "What Hides Behind an Unemployment Rate: Comparing Portuguese and US Labour Markets." *American Economic Review*, No.91. pp.187-207.

Botero, Juan; Djankov, Simeon; La Porta, Rafael; Lopez-de-Silanes, Florencio y Shleifer, Andrei. 2004. "The Regulation of Labour". *The Quarterly Journal of Economics*, 119(4). pp.1339-1382 (Cambridge, MIT Press).

Bouzas Ortiz, José Alonso. 2006. "Régimen Laboural en la pequeña y mediana empresa y futuro de los contratos colectivos de protección". In Kurczyn, P., "Decimocuarto congreso iberoamericano de derecho del trabajo". (D.F., Universidad Nacional Autónoma de México).

Bureau of Democracy, Human Rights and Labour. 2005. "Country Reports on Human Rights Practices 2004": http://www.state.gov.

Cabal et al. 1998. Evaluacion de programas de apoyo a la Microempresa. 1997-1998. Departamento Nacional de Planeacion y Fundacion Corona, Bogota, Colombia.

Cahuc and Zylberberg. 2004. "Labour economics" (Cambridge: MIT Press).

Carneiro and Henley. 1998. "Wage Determination in Brazil: The Growth of Union Bargaining Power and Informal Employment". *Journal of Development Studies*, 34, pp.117-138.

Cassoni, A., G. J. Labadie and G. Fachola. 2002. "The Economic Effect of Unions in LatinAmerica: Their Impact on Wages and the Economic Performance f Firms in Uruguay". IADB Working Paper R-466 (Washington, D.C., IADB).

Castañeda, A y Rafael Cubillos. 2002. Situación de la microempresa en Colombia: programas de apoyo y acceso al crédito (Bogota, Fundación Corona y Fundación Ford, Colombia).

Céspedes, Nikita. 2005. "Efectos del salario mínimo en el mercado laboural peruano". DT. Nº 2005-003 (Lima, BCRP).

Clark, K. 1980. "Unionization and Productivity: Micro-Econometric Evidence", *Quarterly Journal of Economics*. December, pp.613-639.

Conindustria. 2001. "Análisis comparativo de las Leyes para el Fomento de las PyMEs en Argentina, Brazil, Colombia, México y Venezuela". CONINCEEL.

Chacaltana, J. 2003. "Public policy and labour in small and micro enterprises in Peru". SEED Working Paper No. 56 (Geneva, ILO).

_____. 2005a. "Productividad del trabajo en el Perú: una mirada desde la economía laboral" (Lima, ILO).

_____. 2005b. "Dimensiones de la productividad del trabajo en las empresas de América Latina: un estudio comparativo de Argentina, México, Panamá y Perú" (Lima, ILO).

Chacaltana and García. 2004. "Reforma laboural, capacitación y productividad". In García, Chacaltana, Francke, Espino and Gallardo (2004): *Políticas de Empleo en Perú* Vol. II (Lima, CIES).

Dolado, Juan Jose, Marcel Cansen and Juan Jimeno. 2005. "Dual Employment Protection Legislation: A framework for analysis", CEPR Discussion Paper No. 5033.

Dowrick, Steve and Spencer, Barbara J. 1994. "Union Attitudes to Labour-Saving Innovation: When Are Unions Luddites?" *Journal of Labour Economics*, University of Chicago Press, Vol. 12(2), pp. 316-344, April.

Eclac (2004). Panorama social de América Latina (Santiago de Chile, ECLAC).

Edwards, S. and A. Cox-Edwards. 1999. "Social Security Reform and Labour Markets: The Case of Chile". Los Angeles, Long Beach, and Cambridge, United States: University of California at Los Angeles, National Bureau of Economic Research, and California State University. Mimeographed document. Cited by Heckman and Pagés (2003).

Ehrenberg and Smith. 2003. "Modern Labour Economics, Theory and Public Policy". New York: Addison Wesley, 8th Ed.

Estey. 1981. "The Unions". Third Edition. New York: Harcout Brace Jovanovich.

Fajnzylber, F. 1988. "Competitividad Internacional: Evolución y Lecciones". Revista de La CEPAL, Nº 36, December, pp.7-23. Santiago de Chile, Comisión Económica para América Latina y el Caribe (CEPAL).

Flores, Carolina. 2003. "Creating a Conducive Policy Environment for Employment Creation in MSEs in Chile". SEED Working Paper No. 61 (Geneva, ILO).

Freeman, Richard. 2005. "What Do Unions Do?: The 2004 M-Brane Stringtwister". NBER Working Paper No. 11410.

Garavito, Cecilia. 2005. "Impactos Económicos de la extensión de la Ley MyPE al resto de Unidades Económicas" (Lima, MTPE).

Galli, Rossana and David Kucera. 2004. "Labour Standards and Informal Employment in Latin America", *World Development*, Vol. 32(5), pp.809-828.

Giordano, Osvaldo. 1995. "Relaciones laborales en las PyMEs. Comentarios al Título III de la Ley 24.467 (Buenos Aires, Ministerio de Trabajo y Seguridad Social).

Gruber, Jonathan. 1994. "The Incidence of Mandated Maternity Benefits," *American Economic Review*, 84(3), pp.622-641.

Hamermesh, Daniel S. 1993. "Labour Demand" (Princeton, New Jersey, Princeton University Press).

Harris, Tang and Tseng. 2002. "Optimal Employee Turnover Rate: Theory and Evidence". Melbourne Institute Working Paper Series No. 19/02, University of Melbourne.

Heckman, J. 2002. "Flexibility and Job Creation: Lessons for Germany". NBER Working Paper No. 9194.

Heckman, J., LaLonde and Smith. 1999. "The Economics and Econometrics of Active Labour Market Programs". In: O.Ashenfelter y D.Card (eds.), *Handbook of Labour Economics*, Vol.3A.

Heckman, J. and Pagés, C. 2003. "Law and Employment: Lessons from Latin America and The Caribbean". NBER Working Paper No. 10129.

_____. 2000. "The Cost of Job Security Regulation: Evidence from Latin American Labour Markets." NBER Working Paper 7773.

Heckman, J. and R. Robb. 1985. "Alternative methods for evaluating the impact of interventions". In Heckman and Singer, *Longitudinal analysis of labour market data*, pp.156- 246. (Cambridge, Cambridge University Press).

Hernández, Arístides. 2005. “Competitividad basada en el trabajo: el reto de elevar la productividad del trabajo en Panamá” (Lima, ILO).

Hopenhayn, Hugo. 2001. “Labour Market Policies and Employment Duration: The Effects of Labour Market Reform in Argentina”. Research Network Working Paper R-407. (Washington D.C., IADB).

Hopenhayn, Hugo and Richard Rogerson. 1993. “Job Turnover and Policy Evaluations: A General Equilibrium Analysis”, *Journal of Political Economy*, No.101, pp. 915-938.

International Labour Office (ILO). 2006. *Implementing the Global Employment Agenda: Employment strategies in support of decent work, “Vision” document* (Geneva). Also available at: http://www.ilo.org/gea [24 April 2008].

ILO. 2005a. Minimum Wage Data Base. http://www.ilo.org/travaildatabase/servlet/minimumwages

____. 2005b. “Panorama Laboral 2005: América Latina y El Caribe” (Lima, ILO).

____. 2003. *Working out of poverty*, Report of the Director-General, International Labour Conference, 91st Session, Geneva, 2003 (Geneva). Also available at: http://www.oit.org/public/english/standards/relm/ilc/ilc91/pdf/rep-i-a.pdf [24 April 2008].

____. 2001. *Reducing the decent work deficit: A global challenge*, Report of the Director General, International Labour Conference, 89th Session, Geneva, 2001 (Geneva). Also available at: http://www.ilo.org/public/english/standards/relm/ilc/ilc89/rep-i-a.htm [24 April 2008].

____. 1999. *Decent work*, Report of the Director-General, International Labour Conference, 87th Session, Geneva, 1999 (Geneva). Also available at: http://www.ilo.org/public/english/standards/relm/ilc/ilc87/rep-i.htm [24 April 2008].

Jaramillo, Miguel. 2005. ¿Cómo se ajusta el mercado de trabajo ante cambios en el salario mínimo en el Perú? Evaluando la experiencia de la última década (Lima: GRADE).

Kucera, David. 2002. “Effects of Labour Standards on Labour Costs and FDI Flows”. In Bhagwati, J. and Corbet, H.: *Labour Standards in an Integrating World Economy* (Washington, D.C., Cordell Hull Institute).

Kugler, Adriana. 2001. “From Severance Pay to Self-Insurance: Effects of Severance Payments Savings Accounts in Colombia”. NBER Working Paper No. 6860.

_____. 2000. “The Impact of Firing Costs on Turnover and Unemployment: Evidence from the Colombian Labour Market Reform”, Inter-American Development Bank Research Network Working Paper R-393. (Washington, D.C., IADB).

Kugler, A., J. F. Jimeno and V. Hernanz. 2003. “Employment Consequences of Restrictive Permanent Contracts: Evidence from Spanish labour Market Reforms”, CEPR Working Paper No. 3724.

_____. 2002. “Employment Consequences of Restrictive Permanent Contracts: Evidence from Spanish Labour Market Reforms”, IZA Discussion Papers 657, Institute for the Study of Labour (IZA).

Kugler, A. and Maurice Kugler. 2003. “The Labour Market Effects of Payroll Taxes in a Middle-Income Country: Evidence from Colombia”. CEPR Working Paper No. 4046.

Kugler, A., and Giovanni Pica. 2005. “Effects of Employment Protection on Worker and Job Flows: Evidence from the 1990 Italian Reform,” IZA Discussion Paper No. 5256.

Lazear, Edward. 1990. “Job Security Provisions and Employment”, *Quarterly Journal of Economics*, No.105(3), pp.699-726.

Maloney, William and Núñez Mendez, Jairo. 2003. “Measuring the Impact of Minimum Wages: Evidence from Latin America”. NBER Working Paper No. 9800.

MacIsaac, D. and M. Rama. 1997. “Determinants of Hourly Earnings in Ecuador: The Role of Labour Market Regulations”. *Journal of Labour Economics*, No.15 (3-Part Two).

Marcon, F. 2006. “Economía Informal: tendencias recientes y futuros desafíos para los Estados miembros de la UE”. Presentación en el taller “Empleo y Condiciones de Trabajo en la economía informal” (San Jose, 2006).

Marinakis, Andrés and Velasco, Juan Jacobo. 2006. “¿Para qué sirve el salario mínimo? Elementos para su determinación en los países del cono sur” (Santiago de Chile, ILO).

Márquez and Pagés, C. 1998. “Ties that bind: Employment protection and labour market outcomes in Latin America”. Inter-American Development Bank Working Paper, No. 373 (Washington, D.C., IADB).

McHugh. 1991. “Productivity effects of strikes in struck and nonstruck industries”. *Industrial and Labour Relation Review* No. 722-732, July.

Menezes-Filho, N., H. Zylberstajn, J. P. Chahad, and E. Pazello. 2002. “Unions and the Economic Performance of Brazilian Establishments.” Working Paper R-464. (Washington, D.C., IADB).

Mertens, Brown and Domínguez. 2005. Competitividad, productividad y trabajo decente: desafíos para la industria manufacturera. pp. 25-61 in ILO: *Revista Trabajo*, Año 1, No. 1. September, 2005. D.F: Universidad Autónoma de México.

Meyer, Bruce D. 1995. “Natural and Quasi-Experiments in Economics.” *Journal of Business and Economic Statistics*, No. 13(2), pp. 151-161.

Mondino and Montoya. 2000. “The Effects of Labour Market Regulations on Employment Decisions by Firms: Empirical Evidence for Argentina.” Working Paper No. R-391 (Washington D.C., IADB).

Montenegro, Claudio and C. Pagés. 2003. “Who Benefits From Labour Market Regulations? Chile 1960-1998”. Policy Research Working Paper Series No. 3143. The World Bank.

Montero, Reinecke and Zapata. 2006. “Sustitución de multas por capacitación: Evaluación de una experiencia innovadora de aplicación de la legislación laboural en micro empresas”. Mimeo (Santiago de Chile, ILO).

Morgado, E. 2006. “Reflexiones acerca del régimen laboral de la micro, pequeña y mediana empresa”. In: Kurczyn, P. “Decimocuarto congreso iberoamericano de derecho del trabajo”. D. F. Universidad Nacional Autónoma de México.

Mortensen, Dale, and Christopher Pissarides. 1999. “New developments in models of search in the labour market” in O. Ashenfelter and D. Card, eds., *Handbook of Labour Economics*, Vol. 3, pp. 2567-2627 (Amsterdam, Elsevier Science).

Mondino, Guillermo, and Silvia Montoya. 2002. The Effect of Labour Market Regulations on Employment Decisions by Firms: Empirical Evidence for Argentina. Research Network Working Paper R-391 (Washington D.C., IADB).

Neri, Gonzaga and Camargo. 2000. “Efeitos informais do salário mínimo e pobreza”. Texto para Discussão nº 724 (Rio de Janeiro, IPEA).

Paes de Barros, Ricardo and Carlos Enrique Corseuil (2001). “The Impact of Regulations on Brazilian Labour Market Performance”. Research Network Working Paper R-427 (Washington D.C., IADB).

Pasco Cosmópolis, Mario. 2006. “Contratos de trabajo, economía informal y empresas de mano de obra”. In Kurczyn, P., “Decimocuarto congreso iberoamericano de derecho del trabajo”. D. F. Universidad Nacional Autónoma de México.

Pagés, C. and C. Montenegro. 1999. “Job Security and the Age-Composition of Employment: Evidence from Chile”. Working Paper 398 (Washington, D.C., IADB).

Peruvian Labour Ministry. 2004. “Cumplimiento e impacto de la Ley 28015”. Dirección Nacional de la Micro y Pequeña Empresa. Power Point presentation. Lima, Peru.

Pissarides, Christopher. 2000. “Equilibrium Unemployment Theory”. 2ed. (Cambridge, MA, MIT Press).

Portes. 1994. “When more can be less: labour standards, development, and the informal economy”. In C. A. Rakowski (Ed.), Contrapunto: The informal sector debate in Latin America. Albany, NY: State University of New York Press.

Pries, Michael and Richard Rogerson. 2005. “Hiring Policies, Labour Market Institutions, and Labour Market Flows”. *Journal of Political Economy*, Volume 113, pp. 811-839.

Rees. 1963. “The effects of unions on resource allocation”. *Journal of Law and Economics*, October: pp. 69-78.

Reinecke, G. and Simon White. 2004. “Policies for small enterprises – Creating the right environment for good jobs” (Geneva, ILO).

Renoy, P. et al. 2004. “Undeclared work in an enlarged union. An analysis of undeclared work: an in-depth study of specific items”. European Commission Directorate-General for Employment and Social Affairs Unit EMPL/A/1.

Saavedra J. and Torero M. 2002. “Union Density Changes and Union Effects on Firm Performance in Perú”, Inter-American Development Bank, Research Network Working Paper No. 465, September.

Sánchez-Castañeda, Alfredo. 2006. ¿Un régimen laboral diferenciado para la pequeña y mediana empresa? In Kurczyn, P. “Decimocuarto congreso iberoamericano de derecho del trabajo”. D. F. Universidad Nacional Autónoma de México.

Saavedra, Jaime, and Máximo Torero. 2000. Labour Market Reforms and Their Impact on Formal Labour Demand and Job Market Turnover: The Case of Peru. Research Network Working Paper R-394. (Washington, D.C., IADB).

Singh and Zammit. 2000. “The global labour standards controversy: Critical issues for developing countries. Geneva, Switzerland: South Centre.

Szretter. 2004. “Argentina: Productividad del trabajo en la economía no primaria” (Lima, ILO).

Vega Ruíz, María Luz. 2005. “La Reforma Laboural: Un Análisis Comparado” (Lima, ILO).

_____. 2001. “La Reforma Laboral: Un Análisis Comparado” (Lima, ILO).

Vergara, Mónica. 2005. “Aspectos Laborales de la Ley de Microempresas Familiares”. In Valenzuela, M, R. Di Meglio y G. Reinecke eds. “De la casa a la formalidad. Experiencias de la ley de microempresas familiares en Chile”. (Santiago de Chile. Centro de Estudios de la Mujer-OIT).

Vildoso, C. 2006. “La formalidad laboral en la microempresa”, *Perú Economico*, Volume XXIX, No. 5. May.

White, S. and Chacaltana, J. 2002. “Enabling small enterprise development through a better business environment. Donor experiences in supporting reforms in the business environment”. Washington, Committee of Donor Agencies for Small Enterprise Development, Working Group on Enabling Environment.

Zevallos, Emilio. 2003. Micro, pequeña y mediana empresa en America Latina, *Revista de Cepal*. No.79. April.

Annex 1

Table A1: Latin America: Composition of labour, 2004 (%)

	Urban	Rural	Total
Total	71	29	100
Public sector	8	3	11
Private sector	52	19	71
Independent	19	8	27
2 to 5 workers	8	3	11
6 to 10 workers	4	1	5
11 to 49 workers	11	3	14
More than 50 workers	10	3	13
Other workers	12	7	19
Business owners	4	1	5
Other (domestic, family, etc.)	8	6	14

Source: Own estimation based on ILO (2005b) and Eclac (2004).

Table A2: Types of labour and labour-related laws

Study	Types of Law	Specific areas of laws
Botero, Djankov, La Porta, Lopez-de-Silanes, and Shleifer1 (2004)	Employment laws	✓ Alternative employment contracts (part time contracts, fixed term contracts, etc) ✓ Hours worked (days of annual leave, mandatory holidays, overtime, work on the rest day, hours of work per week, weeks worked a year, ✓ Firing regulations: redundancy dismissal, no cause dismissal, notice period, severance payment, and penalty for no cause dismissal. ✓ Dismissal procedures: notification to or approval by a third party, retraining or replacement prior to dismissal, priority rules.
	Collective relations laws	✓ Labour union power: right to unionization, to collective bargaining, duties of employers and unions, closed shops, workers councils, etc ✓ Collective disputes. Employer lockouts, industrial action, wildcat strikes, political strikes, requirements before strikes occur, conciliation procedures, arbitration during a labour dispute, rules to fire or replace striking workers, etc
	Social security laws	✓ Old age, disability and death benefits. Right to coverage of risk of old age, disability and death, retirement age, months of contribution before retirement, level of salary deductions for old age and disability benefits, ✓ Sickness and health benefits. Right to coverage of risk of sickness, rules for contributions or employment required to qualify for sickness benefits, waiting period for sickness benefits, ✓ Unemployment benefits. Right to coverage of risk of unemployment, rules for contributions or employment required to qualify for unemployment benefits by law, waiting period for unemployment benefits
	Civil rights	✓ No labour discrimination on grounds of race or gender ✓ Statutory duration of maternity leave with 100% earnings ✓ Minimum working age ✓ Mandatory minimum wage
Portes (1994) cited by Kucera and Galli (2005)	Basic rights	✓ Right against use of child labour ✓ Right against involuntary servitude ✓ Right against physical coercion
	Survival rights	✓ Right to a living wage ✓ Right to accident compensation ✓ Right to a limited work week
	Security rights	✓ Right against arbitrary dismissal ✓ Right to retirement compensation ✓ Right to survivors' compensation
	Civic rights	✓ Right to free association ✓ Right to collective representation ✓ Right to free expression of grievances

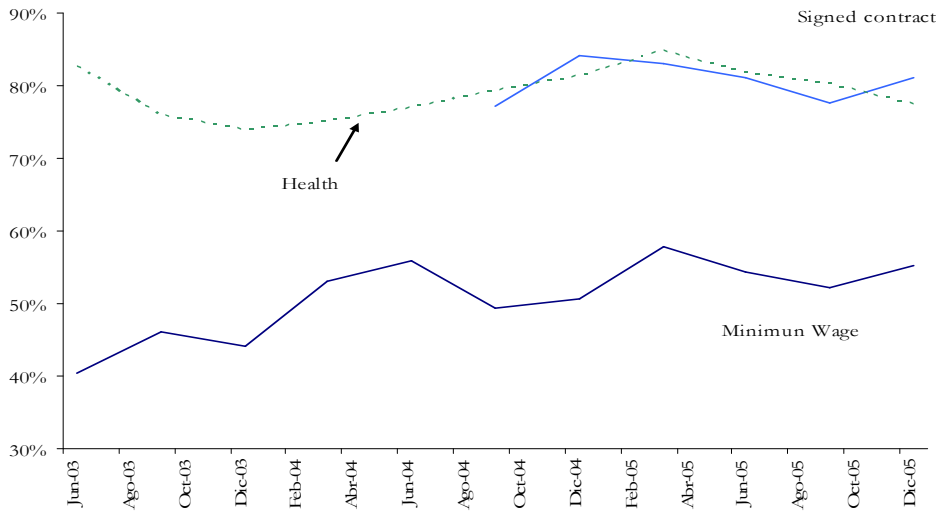
Source: own sources.

Table A3: Definitions of MSEs in Latin America (number of workers limits)

	Micro	Small	Medium	Large
Chile	4	49	199	200
Colombia	10	50	200	200
Costa Rica	5	30	100	100
El Salvador	4	49	99	99
Guatemala	4	49	199	199
Mexico	30	100	500	500
Venezuela	4	20	100	100
Peru	10	50	100	100

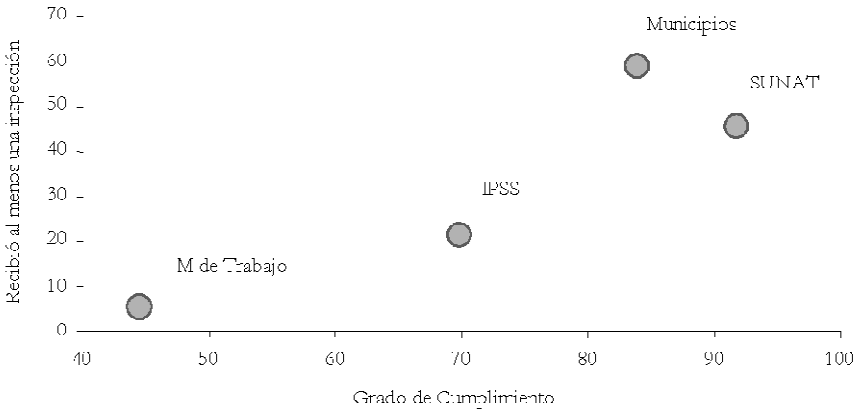
Source: Zevallos, Emilio, FUNDES.

Figure A1: Peru – Incompliance with labour and labour-related laws before and after the SME law approval



Source: Based on household surveys.

Figure A2: Peru – correlation between inspection and compliance



Source: Chacaltana (2003).

Table A4: Cases of general legislation with exceptions for MSEs

Country	Detail
Argentina	✓ MSEs have a more flexible access to hiring contract modalities and have special regulations on OSH and training. ✓ MSEs can redefine workplace activities, the characteristics of ordinary annual leave, the payment of the annual complementary payment, and the change of the regime of contract extinction.
Chile	✓ Under legal age workers can work at night only if other members of their families work at the same place. ✓ Firms with less than 25 workers are not required to comply with the 85 per cent cuota of Chilean nationals at the firm. ✓ Firms with less than 9 workers are not required the internal personnel policy, neither the hygiene and security policy. ✓ Smaller firms can apply to some training systems specially oriented to them. ✓ In firms with less than 50 workers, 8 of them can form a firm union. For firms with more than one establishment, workers can form a union if they add up 25 or more workers or 30 per cent of the total number of workers. The number of representatives also varies for firms with less than 25 workers. ✓ Fines for labour faults have a special treatment for Small business.
Colombia	✓ According to the number of workers, there are different regulations in: • the entry registry • labour contract certification • OSH regulations • Work uniforms (clothes) • "auxilio de cesantía" • Collective dismissal. ✓ According to the volume of capital, there are different norms on the hiring of apprentices and OSH benefits. ✓ According to the economic sector, there are different norms on issues such as the internal personnel policy.
Costa Rica	✓ Acccording to the number of workers, there is a difference on the percentage of positions within the firm reserved for national workers and their labour share (in the total payroll).
Ecuador	✓ According to the number of workers, there are differences in collective dismissal procedures.
Panamá	✓ According to the number of workers and the economic sector, some regulations related to the ending of the labour contract do not apply. ✓ In MSEs, internal personnel policies are not required, neither a committee for grievance resolution nor places to nurse children.
Paraguay	✓ The internal personnel policy is only required at firms with more that 20 workers. The same applies for places to nurse and feed children.
Dominican Republic	✓ At firms with more numbers of workers, the cuota (mandatory share) of Dominicans national at the firm increases. ✓ According to the volume of capital, agricultural firms with low capital do not pay profit sharing (profit sharing schemes). ✓ Family businesses do not have limits on the hours of work or night work. ✓ Firms with less than 20 workers can not have unions.
Venezuela	✓ According to the number of workers some benefits differ: • Mandatory scholarships for children of workers only for firms with more than 100 workers • Nationality rules only apply to firms with more than 10 workers • Child care places only for firms with more than 20 female workers • Medical services only for firms with more than 500 workers. Hospital services for firms with more than 1000 workers • Different percentage allowed for collective dismissal. Also in smaller firms, non-causal dismissal does not give right for rehiring. • According to the volume of capital and activity sector, there is a different level of profit sharing.

Source: Morgado (2006); Vega (2005).

Table A5: Some measures taken in Europe to reduce undeclared work

Dimension	Measure	Countries
Prevention and incentives	Simplification of administrative procedures	Austria, Denmark, Holand, England, Spain
	Tax reduction	Denmark, Portugal, Ireland
	Labour flexibility	Austria, Belgium
	Regulation harmonization	Austria, Greece, Holand, France, Portugal, Denmark
	Finance programs to compete with undeclared work	Germany, England
	Formalization programs	Italy
Repression	Better fiscal control, via multiple authority cooperation (cross check)	Finland, Sweden, Luxemburg, Germany
	Better fiscal control via strengthening of existing authorities	Austria, Germany, Greece, Ireland, England, Ireland
	Better fiscal control via creation of new authorities	Austria, Holland, Portugal
	Specific control actions in particular sectors	Portugal (illegal immigrants), Spain (domestic service), construction sector (Sweden)
Awareness	Specific awareness campaigns	England, France
	Information to foreign workers	Finland
	Publication of the names of those that hire undeclared workers	Ireland
	Campaigns on the risks of undeclared work	Sweden

Source: Marcon, F. (2006).

Annex 2

Methodological Appendix

A review of econometric impact methods for evaluation

There is a growing literature that takes a quantitative approach in order to assess the effects of labour market interventions. Most of these methods rely on the existence of a counterfactual, or comparison groups to assess impact, i.e to identify the effects caused by the interventions and not by other phenomena. However, in the case of labour and labour-related laws, by definition these laws affect all people or enterprises in a country or region and for that reason there is no possibility of constructing a comparison group as a counterfactual. Several methods haven been used to address this problem. We identify at least four methods frequently used by the specialized literature. In order to guide the description of these methods it is appropriate to differentiate between reduced form and structural form estimation, and also to specify what an identification strategy of causal effects is.[53]

- Estimation of reduced forms means estimating net impacts of causing variables on the variables (outcomes) of interest. Economic theory is used to frame causal questions and propose alternative hypothesis to be tested using an empirical identification strategy. The main task here is to identify a credible source of exogenous variation in order to isolate the causal effect of a given variable (the causing variable) on the outcomes of interest. However, given that the sources of variation in a specific context do not apply in general to all possible situations, reduced form results are not easily generalized to other situations.
- Estimation of structural modeling of behavioural functions, and the main problem is estimating parameters supposed to enter people's behaviour (such as utility functions, firms' production functions, government's loss functions, and so forth). This type of estimation identifies the fundamental structure of an economic model, and therefore using the results of these procedures the researcher is able to make causal statements and to generalize the results.

Ideally, we would want the causing variable to be assigned randomly across individuals or firms so running a regression of the outcome on the causing variable will yield unbiased estimates of the causal effect going from the causal variable to the outcome. However, in real situations, the causing variable is not randomly assigned. Therefore, we need to design empirical strategies aimed at eliminating likely biases in order to identify a causal relationship in an observational study (as opposed to an experimental study, such as clinical trials, where the researchers can assign randomly the causing variable among individuals). In many applications, policy changes such as the introduction of new regulations or abolition of regulations in place serve as sources of exogenous variation as long as these changes are unrelated directly to the outcomes of interest.

The Cross-Section (CS) estimator

The cross-section estimator is the basic design to assess the causal effect of one variable over another. In a regression framework, it consists on running a regression of the outcome on the causing variable and to control for additional variables that are confounded with the causal variable. The intuition is that including these additional variables allows attaining the *ceteris paribus* condition,[54] so the relationship between the causing variable and the outcome can be estimated without biases, and therefore can be interpreted as a causal relationship. Assuming that we have a sample of individual units i, that the outcome of interest is represented by Y, the causing variable by C, and the additional variables by X, the regression framework can be represented by the estimating equation:

[53] Most of the description of methods and their pitfalls presented in this overview is based on work by Heckman and Robb (1985), Meyer (1995), Angrist and Krueger (1999), Heckman, LaLonde and Smith (1999).

[54] Ceteris paribus, means "keeping all other things constant".

$$Y_i = \alpha + \beta C_i + X_i \Gamma + \varepsilon_i .$$

In this expression, ε represents the regression error. This estimating equation is usually estimated using Ordinary Least Squares (OLS), although other estimation techniques can also be applied. The coefficient β captures the relationship between the causing variable and the outcome. The main identification assumption of the CS estimator is that the causing variable is uncorrelated to the regression error. If this is the case, the CS estimate of β identifies the causal relationship between the causing variable and the outcome.[55]

The main problem of the CS design is that causing variables are seldom randomly assigned, that is, they are not exogenous. In most situations, it is impossible to include all the additional variables correlated to the causing variable in the regression model simply because these variables are not available to the researcher in the data. Thus, CS estimates are often affected by omitted variable bias. In general, it is difficult to ensure that the causing variable is truly exogenous, this happens because in real life many events and features of an individual or a firm are intertwined.[56] A second problem with CS estimator is over-controlling. This occurs when a covariate affected by the causing variable is included in the regression model. If the relationship between these two variables is positive, the inclusion of the additional covariate will lead to a downward bias on the estimation of the causing variable because some of the causal effects will appear through its relationship to this covariate.

The Before-After (BA) estimator

The before-after estimator exploits temporal variation that defines a pre-change period and a post-change period associated to the causing variable. This estimator is applied in empirical work when the same change in the causing variable or the policy change applies to the population at large, so everyone gets exposed to the new level of the causing variable or the new policy regulation (we observe only one group in both pre-change and post-change periods). If the policy change associated to the causing variables is the only change in the environment, then the temporal variation in the policy allows estimating the effect of the causing variable on the outcome of interest by comparing outcomes before and after the change. Assume that we have information for two cross-section samples of the population, one before the change ($t = 0$) and another after the change ($t = 1$). In such a situation, the before-after design to estimate the causal effect of the change can be expressed using the following regression model:[57]

$$Y_{it} = \alpha + \beta \, \text{Post}_i + \varepsilon_{it} ,$$

Here, Y is the outcome of interest (wages, hours of work, labour demand, etc.), ε is the regression error, and Post is a dummy variable that takes a value of one if the observation comes from the period after the policy change and zero otherwise (that is $\text{Post} = 1$ when $t = 1$ and $\text{Post} = 0$ when $t = 0$). The BA estimator of β is equivalent to:[58]

[55] Notice that this identification assumption is different from the OLS requirement that the regressors are uncorrelated with ε. OLS "mechanically" impose this assumption to the data in order to get an estimate of β. The causal interpretation of the OLS estimate of β comes only if we can ensure that nothing in the error term ε remains correlated to the causing variable.

[56] For instance, when estimating the returns to schooling, it is difficult to ensure that schooling is an exogenous variable. It is surely related to ability, which also affects earnings. Omitting ability in an earnings regression biases the estimate of schooling coefficient in an earnings regression, making difficult to interpret the estimated relationship between schooling and earnings as causal. Typical ways to attenuate the extent of omitted variable bias is to include as many covariates as possible to attain what the *ceteris paribus* condition, that is, to maintain everything else equal.

[57] Additional variables can also be included in the regression equation.

[58] See Heckman and Robb (1985) or Meyer (1995).

$$\hat{\beta}_{BA} = (\overline{Y}_1^T - \overline{Y}_0^T);$$

In this expression, the bar indicates an average over individual units and the subscripts indicate whether the average corresponds to the period after the policy change ($t = 1$) or to the period before policy change ($t = 0$). In other words, the BA estimator is simply the difference between the outcome of interest before and after the change.[59] The main identifying assumption of the BA strategy is that in the absence of the policy change, β would be zero.

This empirical strategy is not valid in general, but in some applications may be appropriate. In particular, this strategy would be useful in situations when there is a sharp change in policy or in the causing variable and when individual units are comparable over time in the absence of the policy change. In many cases, it is difficult to obtain unbiased estimators of changes in law because many other changes and secular trends occur at the same time as the change analysed. For instance, changes in labour codes and trade liberalization were implemented during the nineties in several Latin American countries and both policy changes affected all workers or firms and it is difficult to separate their net effects.

An alternative approach consists of a two-step procedure. In the first step, the parameters of an underlying relationship (such as labour demand elasticity) are estimated over time. Then, in the second step, the effect of interest is isolated by estimating a pre-post regression using the estimated parameters from the first step as the dependent variable and a time dummy for the post-reform period as the main explanatory variable (obviously, many other conditioning variables can be included in this regression to reduce the omitted variables bias problem).

Pitfalls. The major problem with the BA estimator is the possibility that the group before the policy change and the group after the policy change are not comparable. The main identification assumption of the BA is that these two groups are comparable in the absence of the treatment. However, it is possible that other unobserved factors besides the policy change under study affect the analysis group. If this is the case, then the BA estimator would pick-up these other factors together with the true effect of the policy biasing the results. One possibility to solve this problem is to identify sub-groups affected by these other secular factors but unexposed by the policy change. Then, any time invariant secular trend can be removed by taking the difference between the BA estimate for the exposed and unexposed groups. This is the intuitive idea of the next identification strategy.

The Difference-in-Differences (DD) estimator

Difference-in-differences techniques are an extension to the before-after method that applies when certain groups are exposed to the causing variable while others are not. Exposed units comprise the treatment group, while unexposed units the control group. The method consists of taking the difference of the outcome of interest before and after a change in the causing variable for the exposed group and then difference away the difference of the outcome before and after the change for the unexposed group, thus the term difference-in-differences or double difference. The DD strategy is well suited when sharp changes in the environment or changes in government policy are observed and when these changes generate variation across groups affected and not affected by them, thus generating a treatment group (exposed) and control group (not exposed).

In a regression framework, the DD estimator is obtained by estimating the following regression:

$$Y_{it} = \alpha_0 + \alpha_1 \text{Post}_i + \alpha_2 \text{Treatment}_{it} + \beta(\text{Post}_i \times \text{Treatment}_{it}) + \varepsilon_{it},$$

Here Treatment is a dummy variable indicating whether an individual unit belongs to the exposed or treatment group. The coefficient on the interaction term $(\text{Post}_i \times \text{Treatment}_{it})$ is the parameter of interest, it captures the variation experienced by treated units relative to the control units because

[59] Under this approach, the identification of β does not require data on individual units as long as only grouped means are required and thus aggregate data is sufficient to estimate the effect of interest. However, in order to obtain standard errors and to perform statistical tests data on individual units (repeated cross-sections) or time series data on aggregates are required.

of the causing variable. As such, the key identification assumption is that the interaction term is zero in the absence of the change in environments or policies. It can be shown that the DD estimator of β is equivalent to:[60]

$$\hat{\beta}_{DD} = (\bar{Y}_1^T - \bar{Y}_0^T) - (\bar{Y}_1^C - \bar{Y}_0^C),$$

In this case, the superscripts T and C denote the treatment and control groups, as before the bar indicates an average over individual units and subscripts indicate time post policy change ($t = 1$) and pre policy change ($t = 0$). Note that the DD estimator eliminates any secular trend associated to the passage of time by taking the difference between treated and control units before and after the policy change.

A variation of this model arises when the interaction between the time variable and the treated variable is not enough to correctly specify the group from which the effects of interest shall be estimated. In particular, it might be the case that among the treatment group only a sub-group is really being affected by the change we are interested in. When this situation arises, a natural extension of the DD strategy is to consider higher-order interactions to isolate the effect of interest. Assuming that on the treatment group there is a particular sub-group of affected individual units after the change in the law, alongside the variables indicating the post reform period and the indicator of the treatment group, an additional variable indicating whether a treatment unit belongs to the affected sub-group shall be included in the regression model. Then, the effect of the change in the law is estimated from the interaction of these three variables. In terms of the previous discussion, this procedure is a difference of difference-in-differences, usually denoted as DDD in the labour economics literature.

Kugler (2001) implements a DDD strategy to estimate the effects of changes in labour regulations in Latin America. The study examines the effects on hourly wages and weekly hours of work of the 1990 Social Security Reform in Colombia. The reform enacted in 1990 replaced the traditional severance payment system with a severance payment savings account (SPSA) system. Under the new system, employers must deposit severance payments equivalent to 8.3 per cent of the current salary into workers' savings accounts on a monthly basis. The new system applied automatically to any worker hired after January 1st 1991. Given that Social Security legislation applies only to formal-sector workers, the identification strategy used by Kugler relies on the interaction between post-reform time, formal-sector workers, and short-tenure workers. From a theoretical standpoint, as long as mandated benefits are valued by workers and they can collect from their accounts the proceeding of these payments without uncertainty, the costs of severance payments can be shifted from employers to employees. Kugler finds that hourly wages fall by 4.2 per cent for treated workers – formal and short-tenure workers (workers with less than 2 years of tenure in 1992 and less than 6 years of tenure in 1996) – this is equivalent to a 50 per cent shift of the 8.3 per cent severance pay contribution by employers. Regarding hours of work, Kugler finds a positive effect of the reform.

DD strategies help solving some of the problems of the BA method to estimate causal relationships. However, as any other empirical strategy there are potential pitfalls under these strategies as well. In general, DD strategies will break down when selection of units into the treatment and control groups depend on pre-existing differences in outcomes. This makes treated and control units not comparable in other unobserved dimensions, so the second difference that removes secular time invariant secular trends is not enough to identify the true causal effect. For instance, in the labour training programme evaluation literature, it is common to compare the gain on earnings between participants and non-participants to estimate the effect of training on earnings. However, as Ashenfelter (1978) and Ashenfelter and Card (1985) pointed out, earnings of programme participants usually drop in the period just before they enter the programme, which might be the actual reason they enter the programme or make them more likely to seek treatment. This is known as the *Ashenfelter's dip* in the programme evaluation literature. In general, the DD design is not well suited when we suspect that time variant trends are present. In the context of policy changes such as labour reforms, DD strategies will likely break down if the policy change is targeted to some groups based on pre-reform differences between treatment (exposed) and control (unexposed) individual units. In this case, given the institutional setting of the labour change, it still may be possible to estimate the causal effect of

[60] See Meyer (1995) or Angrist and Krueger (1999).

the policy change if the targeting mechanism is known and information on the variables that determine exposure are available to the researcher in the data.

A second potential problem with DD strategies is that of functional form dependence. This occurs when the average level of the outcome of interest is very different between treatment and control units before the policy change. In such a situation, the magnitude or even the sign of the DD effect is sensitive to the functional form being estimated. For instance, it is possible that when estimating a DD regression model with the outcome in levels no effect is obtained, but when the model is estimated with the log of the outcome as the model's dependent variable instead, a statistically significant relationship arises. Thus, it is a good practice to compare outcome average levels between treated and control units in the period before the policy change (the pre-reform period), and to check the robustness of results to different functional form assumptions.

A third potential threat to DD strategies, which also apply to other strategies that assume common effects,[61] is the presence of treatment effect heterogeneity. This problem occurs when treatment and control units respond differently to the policy change. A fourth threat to the validity of DD strategies is the possibility of omitted interactions that occur when there exists a relationship between the post-reform variable and the exposure status variable besides treatment. For instance, assume that concurrent with labour legislation reforms that modify severance payments and payroll taxes one observes a period of economic expansion unrelated to the reform. It is likely that different income groups are affected differently by an economic expansion, thus additional interactions might be needed to correctly specify the model. Finally, DD strategies also break down when the policy change generates general equilibrium effects, that is, when changes in the environment cause changes across markets or across sectors and effects in a market have feedback effects on other markets.

Structural estimation methods

Structural methods begin by constructing a fully specified model of the economy; it could be a partial or a general equilibrium model, in which the relationship between variables of interest (outcomes as well as causing variables) are considered. This model is solved to obtain policy functions, that is, optimal response functions. In some cases, the fundamental parameters of the model can be estimated if data is available, in other cases these parameters are calibrated from other sources. Once all these ingredients are in place, the model can be used to simulate what would happen had a variable (such as firing costs) of the model changed. The major advantage of structural models is that if we are able to estimate the underling parameters of the model, so we can predict the effects of virtually any policy change that directly manipulates either prices or income. Up until recently (last two decades), structural models were rather simple because of the computational requirements to solve them or to estimate them. Thanks to the constant improvement of computer capabilities and processing speed, structural models are becoming more complete.

One of the major problems and sources of potential pitfalls of structural models and methods is precisely the imposition of arbitrary structure to the data. The main problem of imposing structure to the data is that this structure could be misspecified, leading to wrongful results, especially when assumptions about the functional forms of preferences or technology are often inconsistent with the data. A second problem of these methods is that they require large amounts of information in order to estimate the parameters embodied in the models. It is usually difficult to get enough data in order to obtain all the ingredients required to estimate these parameters. This often drives researchers to calibrate their models instead of estimating them, setting simple functional forms, and obtaining the parameters either from cross-section or time series datasets. In many cases, researchers obtain some of the parameters in their models from other micro-econometric studies, which may generate problems of inconsistency because the identification assumptions of these micro-econometric studies might be incompatible with their own model. Additional limitations to the solution and estimation of structural models are related to complex calculations required that entail high computational burden

[61] The cross-section, before-after, and difference-in-differences models assume what is known as the common coefficient model. In short, the common coefficient model refers to situations in which the response to treatment does not vary across sub-groups in the population. See Heckman and Robb (1985) or Heckman, LaLonde and Smith (1999) for details.

even for fairly simple models and what is called in this literature “the curse of dimensionality”. These limitations restrict the models to consider just a few variables in order to keep the model manageable (particularly when the variables under analysis are continuous variables), and often also force researchers in this area to impose assumptions not intrinsic to the economics of the problems under analysis for computational convenience.

Employment Working Papers

A complete list of previous working papers can be found on: http://www.ilo.org/employment

A complete list of previous working papers can be found on: http://www.ilo.org/employment

2008

1 Challenging the myths about learning and training in small and medium-sized enterprises: Implications for public policy;
ISBN 92-2-120555-5 (print); 92-2-120556-2 (web pdf)
David Ashton, Johnny Sung, Arwen Raddon and Trevor Riordan

2 Integrating mass media in small enterprise development. Current knowledge and good practices;
ISBN 92-2-121142-6 (print); 92-2-121143-3 (web pdf)
Gavin Anderson. Edited by Karl-Oskar Olming and Nicolas MacFarquhar

3 Recognizing ability: The skills and productivity of persons with disabilities. A literature review;
ISBN 978-92-2-121271-3 (print); 978-92-2-121272-0 (web pdf)
Tony Powers

4 Offshoring and employment in the developing world: The case of Costa Rica;
ISBN 978-92-2-121259-1 (print); 978-92-2-121260-7 (web pdf)
Christoph Ernst and Diego Sanchez-Ancochea

5 Skills and productivity in the informal economy;
ISBN 978-92-2-121273-7 (print); 978-92-2-121274-4 (web pdf)
Robert Palmer

6 Challenges and approaches to connect skills development to productivity and employment growth: India;
ISBN 978-92-2-121275-1 (print); 978-92-2-121276-8 (web pdf)
C. S. Venkata Ratnam and Arvind Chaturvedi

7 Improving skills and productivity of disadvantaged youth;
ISBN 978-92-2-121277-5 (print); 978-92-2-121278-2 (web pdf)
David H. Freedman

8 Skills development for industrial clusters: A preliminary review;
ISBN 978-92-2-121279-9 (print); 978-92-2-121280-5 (web pdf)
Marco Marchese and Akiko Sakamoto

9 The impact of globalization and macroeconomic change on employment in Mauritius: What next in the post-MFA era?;
ISBN 978-92-2-120235-6 (print); 978-92-2-120236-3 (web pdf)
Naoko Otobe

10 School-to-work transition: Evidence from Nepal;
ISBN 978-92-2-121354-3 (print); 978-92-2-121355-0 (web pdf)
New Era

11 A perspective from the MNE Declaration to the present: Mistakes, surprises and newly important policy implications;
ISBN 978-92-2-120606-4 (print); 978-92-2-120607-1 (web pdf)
Theodore H. Moran

12 Gobiernos locales, turismo comunitario y sus redes
Memoria: V Encuentro consultivo regional (REDTURS);
ISBN 978-92-2-321430-2 (print); 978-92-2-321431-9 (web pdf)

13 Assessing vulnerable employment: The role of status and sector indicators in Pakistan, Namibia and Brazil;
ISBN 978-92-2-121283-6 (print); 978-92-2-121284-3 (web pdf)
Theo Sparreboom and Michael P.F. de Gier

14 School-to-work transitions in Mongolia;
ISBN 978-92-2-121524-0 (print); 978-92-2-121525-7 (web pdf)
Francesco Pastore

15 Are there optimal global configurations of labour market flexibility and security? Tackling the “flexicurity” oxymoron;
ISBN 978-92-2-121536-3 (print); 978-92-2-121537-0 (web pdf)
Miriam Abu Sharkh

16 The impact of macroeconomic change on employment in the retail sector in India: Policy implications for growth, sectoral change and employment;
ISBN 978-92-2-120736-8 (print); 978-92-2-120727-6 (web pdf)
Jayati Ghosh, Amitayu Sengupta and Anamitra Roychoudhury

17 From corporate-centred security to flexicurity in Japan;
ISBN 978-92-2-121776-3 (print); 978-92-2-121777-0 (web pdf)
Kazutoshi Chatani

18 A view on international labour standards, labour law and MSEs;
ISBN 978-92-2-121753-4 (print);978-92-2-121754-1(web pdf)
Julio Faundez

19 Economic growth, employment and poverty in the Middle East and North Africa;
ISBN 978-92-2-121782-4 (print); 978-92-2-121783-1 (web pdf)
Mahmood Messkoub

20 Employment and social issues in fresh fruit and vegetables;
ISBN 978-92-2-1219415(print); 978-92-2-1219422 (web pdf)
Sarah Best, Ivanka Mamic

21 Trade agreements and employment: Chile 1996-2003;
ISBN 978-2-1211962-0 (print); 978-2-121963-7 (web pdf)

22 The employment effects of North-South trade and technological change;
ISBN 978-92-2-121964-4 (print); 978-92-2-121965-1 (web pdf)
Nomaan Majid

23 Voluntary social initiatives in fresh fruit and vegetables value chains;
ISBN 978-92-2-122007-7 (print); 978-92-2-122008-4 (web pdf)
Sarah Best and Ivanka Mamic

24 Crecimiento Económico y Empleo de Jóvenes en Chile. Análisis sectorial y proyecciones;
ISBN 978-92-2-321599-6 (print); 978-92-2-321600-9 (web pdf)
Mario D. Velásquez Pinto

25 The impact of codes and standards on investment flows to developing countries
ISBN: 978-92-2-122114-2 (print); 978-92.2.122115-9 (web pdf)
Dirk Willem te Velde

26 The promotion of respect for workers'rights in the banking sector: current practice and future prospects
ISBN 978-92-2-122116-6 (print); 978-2-122117-3 (web pdf)
Emily Sims

27 Labour Market information and analysis for skills development
ISBN 978-92-2-122151-7 (print); 978-92-2-122152-4 (web pdf)
Theo Sparreboom and Marcus Powell

28 Global reach - Local Relationships : Corporate social responsibility, worker's rights and local development
ISBN 978-92-2-122222-4 (print); 978-92-2-122212-5 (web pdf)
Anne Posthuma, Emily Sims

29 The use of ILS in equity markets : "Investing in the work force social investors and international labour standards"
ISBN 978-92-2-122288-0 (print); 978-92-2-122289-7 (web pdf)
Elizabeth Umlas

30 Rising Food Prices and their implications for employment, decent work and poverty reduction
ISBN 978-92-2-122331-3 (print); ISBN 978-92-2-122332-0 (web pdf)
Rizwanul Islam, Graeme Buckley

31 Economic implications of labour and labour-related laws on MSEs: A quick review of the Latin American experience
ISBN 978-92-2-122368-9 (print); 978-92-2-122369-6 (web pdf)
Juan Chacaltana

Employment Sector

For more information visit our site: http://www.ilo.org/employment

International Labour Office
Employment Sector
4, route des Morillons
CH-1211 Geneva 22

Email: edempdoc@ilo.org