



International
Labour
Office
Geneva

**Employment Sector
Employment Working Paper No. 133**

2012

**Employment Protection and
Collective Bargaining: Beyond the
deregulation agenda**

Sandrine Cazes, Sameer Khatiwada, Miguel Malo

Employment
Analysis and
Research Unit

Economic and
Labour Market
Analysis
Department

Publications of the International Labour Office enjoy copyright under Protocol 2 of the Universal Copyright Convention. Nevertheless, short excerpts from them may be reproduced without authorization, on condition that the source is indicated. For rights of reproduction or translation, application should be made to ILO Publications (Rights and Permissions), International Labour Office, CH-1211 Geneva 22, Switzerland, or by email: pubdroit@ilo.org. The International Labour Office welcomes such applications.

Libraries, institutions and other users registered with reproduction rights organizations may make copies in accordance with the licences issued to them for this purpose. Visit <http://www.ifrro.org> to find the reproduction rights organization in your country.

ILO Cataloguing in Publication Data

Cazes, Sandrine; Khatiwada, Sameer; Malo, Miguel

Employment protection and collective bargaining : beyond the deregulation agenda / Sandrine Cazes, Sameer Khatiwada, Miguel Malo ; International Labour Office, Employment Sector, Economic and Labour Market Analysis Department.- Geneva : ILO, 2012

1 v.

Employment working paper, ISSN 1999-2939, 1999-2947 (web pdf) ; No. 133

International Labour Office. Employment Sector. Economic and Labour Market Analysis Dept.

employment security / law reform / collective bargaining / economic recession / employment creation / developed countries / developing countries

13.01.3

Abstract

In the aftermath of the global crisis, countries have turned increasingly towards amending labour market institutions, as easing regulations regarding the hiring and firing of workers is often seen as a way to spur job creation. Meanwhile, there has also been further deregulation and decentralization of collective bargaining. Some of the decline is part of the broader trend that was already taking place before the crisis, while many others were accelerated by the financial and economic crisis. But, the empirical evidence on the link between EPL and employment outcomes is far from being conclusive and similar is the story with the link between collective bargaining and labour market outcomes. This paper shows that there is a non-linear relationship between EPL and employment – from low levels of regulation to an average level, employment increases as the EPL gets more stringent. Particularly, there is a plateau between the EPL index score of 1.6 and 2.6, where the increase or decrease in the stringency of EPL has little or no impact on employment. Meanwhile, cross-country analysis conducted for a range of OECD countries comparing pre-crisis (2007) and post-crisis (2010) situations show that there is no significant relationship between the EPL and unemployment outcomes, including youth unemployment. Likewise, the relationship between private sector investment and stringency of EPL is also non-linear and there is a weak negative relationship between EPL stringency and social well-being, and this holds for both developed and emerging economies. Also, highest employment rates are found in either a fully decentralized (but coordinated) bargaining and in fully centralized bargaining systems.

The designations employed in ILO publications, which are in conformity with United Nations practice, and the presentation of material therein do not imply the expression of any opinion whatsoever on the part of the International Labour Office concerning the legal status of any country, area or territory or of its authorities, or concerning the delimitation of its frontiers.

The responsibility for opinions expressed in signed articles, studies and other contributions rests solely with their authors, and publication does not constitute an endorsement by the International Labour Office of the opinions expressed in them.

Reference to names of firms and commercial products and processes does not imply their endorsement by the International Labour Office, and any failure to mention a particular firm, commercial product or process is not a sign of disapproval.

ILO publications and electronic products can be obtained through major booksellers or ILO local offices in many countries, or direct from ILO Publications, International Labour Office, CH-1211 Geneva 22, Switzerland. Catalogues or lists of new publications are available free of charge from the above address, or by email: pubvente@ilo.org

Visit our website: <http://www.ilo.org/publns>

Preface

The primary goal of the ILO is to contribute, with member States, to achieve full and productive employment and decent work for all, including women and young people, a goal embedded in the ILO Declaration 2008 on *Social Justice for a Fair Globalization*,¹ and which has now been widely adopted by the international community. The integrated approach to do this was further reaffirmed by the 2010 Resolution concerning the recurrent discussion on employment.²

In order to support member States and the social partners to reach this 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 and elaborations of this integrated approach and related challenges are contained in a number of key documents: in those explaining the concept of decent work,³ in the Employment Policy Convention, 1964 (No. 122), in the Global Employment Agenda and, as applied to crisis response, in the Global Jobs Pact adopted by the 2009 ILC in the aftermath of the 2008 global economic crisis.

The Employment Sector is fully engaged in supporting countries placing employment at the centre of their economic and social policies, using these complementary frameworks, and is doing so through a large range of technical support and capacity building activities, policy 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 http://www.ilo.org/public/libdoc/ilo/2010/110B09_108_engl.pdf

³ 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).

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

Contents

Preface	iii
Introduction	1
1. Employment protection legislation and collective bargaining: an overview.....	2
Employment protection legislation (EPL)	2
Collective bargaining.....	5
2. EPL and industrial relations during the global crisis	9
3. Employment regulations: labour market and macroeconomic performance and well-being .	13
Impact on labour market performance	13
Impact on macroeconomic performance	21
Impact on life satisfaction	22
4. Policy considerations	24
Employment protection for better labour market outcomes	24
Tackling labour market duality	24
Better industrial relations for a more equitable growth	25
Harnessing the complementarities between labour legislation and collective bargaining.....	25
Appendix: Empirical methodology.....	27
References	29

List of figures

Figure 1: Empirical evidence on the effects of employment protection legislation (EPL).....	4
Figure 2: Collective bargaining coverage and strictness of employment protection legislation (EPL)...	7
Figure 3: Understanding collective bargaining and labour market regulation during the financial and economic crisis	9
Figure 4: A global overview of changes in employment protection legislation, 2008–2012*	10
Figure 5: Change in the “employment protection legislation index” between 2007/08 and 2010/11	12
Figure 6: Proportion of workers covered by collective agreements (change between 2000/01 and 2008/09 in percentage points)	13
Figure 7: Relationship between EPL and aggregate employment rate	14
Figure 8: Relationship between relative strictness of EPL for regular contracts with respect to temporary contracts and labour market duality (temporary employment over total employment)	16
Figure 9: Relationship between aggregate unemployment (including youth) and EPL	17
Figure 10: Relationship between aggregate employment (including the share of permanent employment) and EPL.....	19
Figure 11: Coordination of wage bargaining and employment rate	20
Figure 12: Relationship between EPL and private sector gross fixed capital formation in developed countries.....	22
Figure 13: Relationship between life satisfaction and collective bargaining.....	23

Introduction⁵

After unprecedented government intervention following the global crisis, job creation still remains tepid at best and labour markets are under a lot of stress, particularly in advanced economies. As countries are faced with the twin challenge of low growth and seemingly insurmountable debt burden, deregulating the labour market is seen as a way to spur job creation and growth. This is particularly the case in the European economies, as countries in the region continue to languish in the aftermath of the financial and economic crisis. Furthermore, the crisis has accelerated the longer-term trend towards the decentralization and deregulation of collective bargaining. Some of these efforts, however, may be counterproductive and exacerbate labour market outcomes.

Employment protection can be achieved either through legislation or collective bargaining. Moreover, these combined with effective labour policies ensure labour market security – a more comprehensive understanding of protection that goes beyond one job or employer. Labour market security provides protection combined with unemployment insurance, minimum wage, training and other labour policies that facilitate transition from unemployment and employment while providing protection to those who are already in employment. Because of the recent trend towards deregulation and decentralization, this paper only examines employment protection legislation and industrial relations, the other aspects of security are left out of the paper.

Section 1 provides an overview of EPL and collective bargaining with a focus on their theoretical links with macroeconomic performance and labour market outcomes. Section 2 includes an overview of recent changes in EPL and collective bargaining – covering over 130 countries where qualitative data is available in terms of legislative changes. For 43 countries, the paper provides an update to the quantitative data on EPL available based on the OECD methodology and the ILO sources for 2010/2011. Section 3 assesses the impact of these changes across countries by exploiting the quantitative data on EPL to identify any causal links with employment, macroeconomic performance, and general well-being. Section 4 concludes by providing policy recommendations chiefly underscoring the need to move away from “more vs less” regulation towards a collectively negotiated level of protection that would ensure job quality and satisfaction without preventing economic efficiency and employment growth.

⁵ Outstanding research assistance by Clemente Pignatti Morano is gratefully acknowledged. Valuable comments were provided by Susan Hayter, Mélanie Jeanroy, Steven Tobin, Raymond Torres and Corinne Vargha (ILO) and Danielle Venn (OECD).

1. Employment protection legislation and collective bargaining: an overview

Employment protection legislation (EPL)

Employment protection legislation is one of the many labour market institutions in a country designed to give employees protection against unfair dismissals as well as from the fluctuations in earned income, which normally occur when the employee loses his job, individually or collectively. Generally speaking, EPL governs firms' ability to fire employees, while it also regulates the use of temporary workers. However, there are exemptions to EPL, which usually depend on the size of the firm. A well-functioning EPL – which balances the need to provide fair treatment as well as income security to workers and allow firms' to adjust employment (hours and/or jobs) based on fluctuations in aggregate demand – is an important determinant of a country's ability to weather an economic downturn. Economic theory says that EPL has a direct impact on allocation of labour, but since internationally comparable quantitative measures of EPL have numerous problems (see Box 1 for more), labour market impact of EPL remains mostly an empirical question (Bertola, Boeri, and Cazes, 2000).

EPL has three main pillars: i) termination of regular employment (permanent or open-ended contracts), ii) hiring of temporary workers, and iii) collective dismissals.⁶ With respect to termination of regular employment, legislation addresses substantial and procedural requirements (administrative and legal), notice periods and severance pay. Severance pay is a direct cost of dismissals for employers, and it is usually defined as a number of wage days (or months) per seniority year. The legislation usually requires either a valid reason for a dismissal or for a list of valid reasons which generally include personal circumstances of the employee (e.g. conduct and capacity related reasons) and economic reasons (e.g. loss in revenues). If the dismissal is challenged and the employer cannot show that there were valid reasons, the dismissal can be declared unjustified and gives rise to remedies in the form of reinstatement or compensation.

The second pillar of employment protection legislation covers temporary contracts designed to give firms flexibility in adjusting employment (by hiring temporary workers) during economic fluctuations. In order to prevent excessive use of temporary contracts, there are laws governing their use, the chief among which is the regulation that stipulates the reasons for which a firm can hire workers on temporary contracts. For example, temporary contracts are generally accepted for seasonal works, and also for employing specific groups of workers such as young people and new entrants to the labour market (Skedinger, 2010). The primary restriction an employer faces is the length of time for which it can keep an employee on a temporary contract.

Finally, the third pillar of EPL is regulation governing collective dismissals, which tend to be subjected to stringent restrictions because it entails additional requirements (information, consultation etc.). The definition of collective dismissal depends on the number of employees concerned and it tends to vary among countries. Collective dismissals have broader economic and social consequences hence regulation is meant to strike a right balance between the socio-economic costs of collective dismissals (on individuals, enterprises, and the community as a whole) and the need for employer to adjust employment. The requirements put in place for employers include, mandatory consultations with union or worker's organization, notification to and approval from the public administration office, priority rules for selecting workers (or selection criteria), priority rules for re-employment, in

⁶ ILO Convention No. 158 concerning termination of employment by an employer provides for minimum standards for individual and collective dismissal.

some cases higher severance pay than individual dismissals, and mandatory steps to help the laid-off employees find new employment through job-placement services and training (Muller, 2011; Skedinger, 2010).

Box 1: Employment protection legislation and the quest for a satisfactory indicator

Measuring employment protection is a difficult task and depends very much on the data availability. Some quantitative aspects can be easily computed, such as the number of months' notice required for individual dismissal and severance pay. But other aspects, such as the interpretation of the definition of "just cause" for termination, are more difficult to measure precisely. In order to carry out international comparisons of employment protection regimes, various summary indicators have been computed by academics and international organizations⁷ to describe the "strictness" of employment protection legislation in each country. But comparable datasets remain scarce: the OECD for example has developed such a methodology and compiled synthetic EPL indicators ranging from (0 to 6), with 6 being the most stringent legislation.

Since the OECD index covers mostly industrialized countries (recently there has been attempts to include large emerging and developing economies), international organisations such as the World Bank or the Fraser Institute have developed other indicators. The "employing workers index" which is part of the Doing Business Indicator published by the World Bank Group has been however subject to strong criticism. As highlighted by the ILO among others, this indicator suffered from a number of both conceptual and methodological flaws; in particular it relies on a simplistic "regulations are costs" perspective (Berg and Cazes, 2008). While trying to influence policy changes in a country is a novel goal, doing it based on a narrow and unbalanced view of the labour market could lead to misleading and unfair policy recommendations with disastrous consequences.

Another limitation of those EPL indexes relates to the omission of enforcement procedures: they are *de jure* indicators, based on the provision of legislation in place, such as labour codes, employment protection acts, and other types of laws. Yet, there are several important indications that asymmetries across countries (and over time) in the degree of enforcement of labour legislation maybe more marked than differences in regulations per se. Enforcement plays a crucial role in the functioning of labour markets, notably in determining labour market flows such as job losses and inflows into unemployment (Bertola, Boeri and Cazes, 2000).

In case of developing and emerging economies, the presence of large informal sector makes it difficult for the EPL indicator to be very meaningful. Moreover, many of the low and middle income countries generally provide *de jure* greater employment protection than the average for the OECD but this is mainly because the legislation is usually the only protection available for workers and in that, it covers only formal workers. Meanwhile, since enforcement of EPL is even more of a challenge in developing countries, formal workers are afforded little protection in practice. This gap in protection remains one of the key challenges facing policymakers in developing and emerging economies.

Since all indexes of EPL are essentially comparative evaluation of labour laws, by their design they include elements of subjectivity (Skedinger, 2010). One way to get around the problem of this subjectivity is by not looking at EPL indexes in isolation but by examining the links with other institutional features (Bertola et al, 2000). By employing a rather nuanced approach, there can be a better understanding of EPL and its impact on labour market outcomes.

⁷ For example: Bertola (1985); OECD (1994, 1999), and Holzmann et al.

The empirical evidence on the effects of EPL can be divided into the following three categories: i) cross-country studies using aggregate data; ii) cross-country studies using disaggregate data; and iii) within country studies using disaggregate data (Figure 1). Most commonly found empirical evidence is of the first type but in the last few years there has been a notable shift towards using disaggregated data and also there is increasingly more reliance on within country evidence. However, irrespective of the methodology used, there is a general consensus that the impact of EPL on employment/unemployment levels is rather mixed. But in terms of distribution, there is stronger evidence that vulnerable groups such as the youth and women could be negatively affected by EPL reforms (as they are very often changing regulations only for a subset of the workforce).

Figure 1: Empirical evidence on the effects of employment protection legislation (EPL)

Cross-country studies using aggregate data	Cross-country studies using disaggregate data	Within country studies using mostly disaggregate data
<ul style="list-style-type: none"> • Mixed and rather small effects on aggregate levels of employment/unemployment • Negative effects on vulnerable groups, especially youth • Hump-shaped relationship between EPL and growth 	<ul style="list-style-type: none"> • Mixed effects on aggregate levels of employment/unemployment • Reduced employee turnover (job creation/destruction) • Negative effects on productivity • Weak/ negative connection between EPL and perceived job security 	<ul style="list-style-type: none"> • Mixed and rather small effects on aggregate levels of employment/unemployment • Reduced employee turnover (job creation/destruction) • Negative effects on productivity • Increased worker absenteeism

Note: Disaggregated data refers to disaggregation by industry and firms, and most recently by individuals. The summary is based on over 100 studies conducted since 1990.

Source: World of Work Report, 2012.

Within the cross-country studies using aggregate data, some studies find that employment declines and unemployment increase with the strictness of EPL (for e.g., Blanchard and Wolfers, 2000; Botero et. al, 2004; Feldmann, 2003, 2009; Heckman and Pagés-Serra, 2000; Nickell, 1997; and Lazear, 1990), while other studies show that there is no effect at all or that employment increases (for e.g., Allard and Lindert, 2007; Baccaro and Rei, 2007; Cazes and Nesporova, 2007; Garibaldi and Violante, 2005; and Griffith et al. 2007). Meanwhile, studies in this stream of literature show that there is a hump shaped relationship between EPL and growth, that is, an increase in EPL from a low level leads to increased GDP per capita, but a reduction occurs with a high level of protection (Skedinger, 2010).

But there are several problems with cross-country studies with aggregate data: first, there are measurement problems with the indices of EPL; OECD's EPL index is the most commonly used but it had very few observations over time until 2006, it's only recently that the data has gotten more extensive. Second, self-constructed indices – used by several studies – have comparability problems. Third, the problem of reverse causality is persistent across several studies (it is difficult to separate whether unemployment levels is affecting the stringency of EPL or vice versa). Given these weaknesses, one of the main strengths of cross-country studies based on aggregate data is that they tend to capture general equilibrium effects which are not possible with disaggregated data without heroic assumptions. However, the advantage of studies that use disaggregated data is that they tease out effects that could be hidden in aggregate data (Skedinger, 2010).

Cross-country studies that use data disaggregated by industry, region and size indicate that there is a measurable negative impact on job reallocation (job creation and destruction) but it varies by industry (Caballero et al, 2004; Gomez-Salvador et al., 2004; Haltiwanger et al., 2006; Messina and Vallanti, 2007). When disaggregating by contract type, job creation and destruction is much higher for temporary than for open-ended contracts. For example, among large firms in Spain, it is 5 to 7 times higher (Garcia-Serrano, 1998; Amuedo-Dorantes and Malo, 2008), but job creation and destruction move together for both type of contracts across the business cycle.

Meanwhile, some studies also show that there is a negative impact on productivity (see for e.g. Bassanini et al, 2009). However, these results vary considerably by industries and it is practically impossible to aggregate at the national level. Also there are studies that cast doubt on the negative impact on productivity by showing that stronger EPL increases patents at the industry level (Acharya et al, 2009). The advantage of using disaggregated data is that the problem of reverse causality is less severe and similarly, the likelihood of omitted variable bias entering into the estimates is relatively low. However, one clear disadvantage is that the results depend crucially on the choice of industries (Skedinger, 2010).

Besides the cross-country studies, there are several within country studies that have exploited the fact that in some countries EPL were more/less stringent for small firms but for large firms they remained the same (Skedinger, 2010). In other words, there were partial labour market reforms, which in turn provide treatment and control groups. Besides the natural experiment, one of the main advantages of within country studies is that it controls for country specific conditions that cross-country studies cannot do. Findings from this group of studies indicate that EPL decreases flows in the labour market, but the effects on employment levels is mixed. Meanwhile, studies show that there is a negative impact on worker's productivity as measured by absenteeism and sickness absence.

A majority of studies on EPL argue that the effects of EPL are stronger when wages cannot be adjusted downwards to compensate for the increased costs due to the legislation (Skedinger, 2010). This depends on collective bargaining framework prevalent in a country, in particular, whether it is centralized or decentralized. Also, for example, if insiders have strong bargaining power then the likelihood of the employer shifting the cost of EPL to employees is minimal. Hence, it is vital to examine the effects of EPL in relation to the collective bargaining framework and other labour market institutions prevalent in a country (Cazes, 2012; Boeri and Van Ours, 2007; Boeri, Bertola and Cazes, 2000).

Collective bargaining

Collective bargaining is a process of negotiation between employer and workers that determine employment relationship, in particular, wages, working time and working standards. By design, collective bargaining entails a process of joint decision making where

work-related issues between employer and workers are negotiated.⁸ However, depending on the structure and coverage of collective bargaining, it can also be a means to regulate the labour market. In some countries (for e.g. Denmark), EPL is mostly regulated through collective bargaining agreements. Therefore the conventional distinction between EPL as being government enacted and collective bargaining as a result of negotiations between employers and workers does not always hold. In fact, in many cases government set the rules for collective bargaining but allow the social partners to self-regulate. Meanwhile, collective bargaining occurs at several levels, namely inter-sectoral (or national), sectoral and firm level (see Table 1). The most prevalent types are multi-level bargaining, which involve national, sectoral and firm level bargaining (varies by country). Since wages and working time are important components of economic production, depending on the degree of coverage, collective bargaining over these factors has a direct impact on labour market and macroeconomic performance.

Table 1 : Collective bargaining over wages

	Inter-sectoral level	Sectoral level	Firm level		Inter-sectoral level	Sectoral level	Firm level
Australia	.	XXX	X	Latvia	.	.	XXX
Austria	.	XXX	X	Lithuania	.	.	XXX
Belgium	XXX	X	X	Luxembourg	.	XX	XX
Brazil	.	XXX	X	Malaysia	.	.	XXX
Bulgaria	.	XXX	X	Malta	.	.	XXX
Canada	.	.	XXX	Mexico	.	.	XXX
Chile	.	.	XXX	Netherlands	.	XXX	X
China	.	X	XXX	New Zealand	.	.	XXX
Cyprus	.	XXX	X	Norway	XX	XX	X
Czech Republic	.	XXX	X	Philippines	.	.	XXX
Denmark	XX	XX	X	Poland	.	.	XXX
Estonia	.	.	XXX	Portugal	.	XXX	X
Finland	XX	XX	X	Romania	.	XXX	X
France	X	X	XXX	Russia	X	XX	X
Germany	.	XXX	X	Singapore	.	.	XXX
Greece	X	XXX	X	Slovakia	.	.	XXX
Hungary	.	XXX	X	Slovenia	X	XXX	.
India	.	XX	XXX	South Africa	.	XXX	X
Indonesia	.	.	XXX	Spain	.	XXX	X
Ireland	XXX	X	X	Sweden	.	XXX	X
Israel	.	XXX	X	Switzerland	.	XXX	X
Italy	.	XXX	X	Turkey	.	.	XXX
Japan	.	.	XXX	UK	.	X	XXX
Korea	.	X	XXX	USA	.	.	XXX

Note: X = existing level of wage bargaining, XX = important, but not dominant level of wage bargaining; XXX = dominant level of wage bargaining.

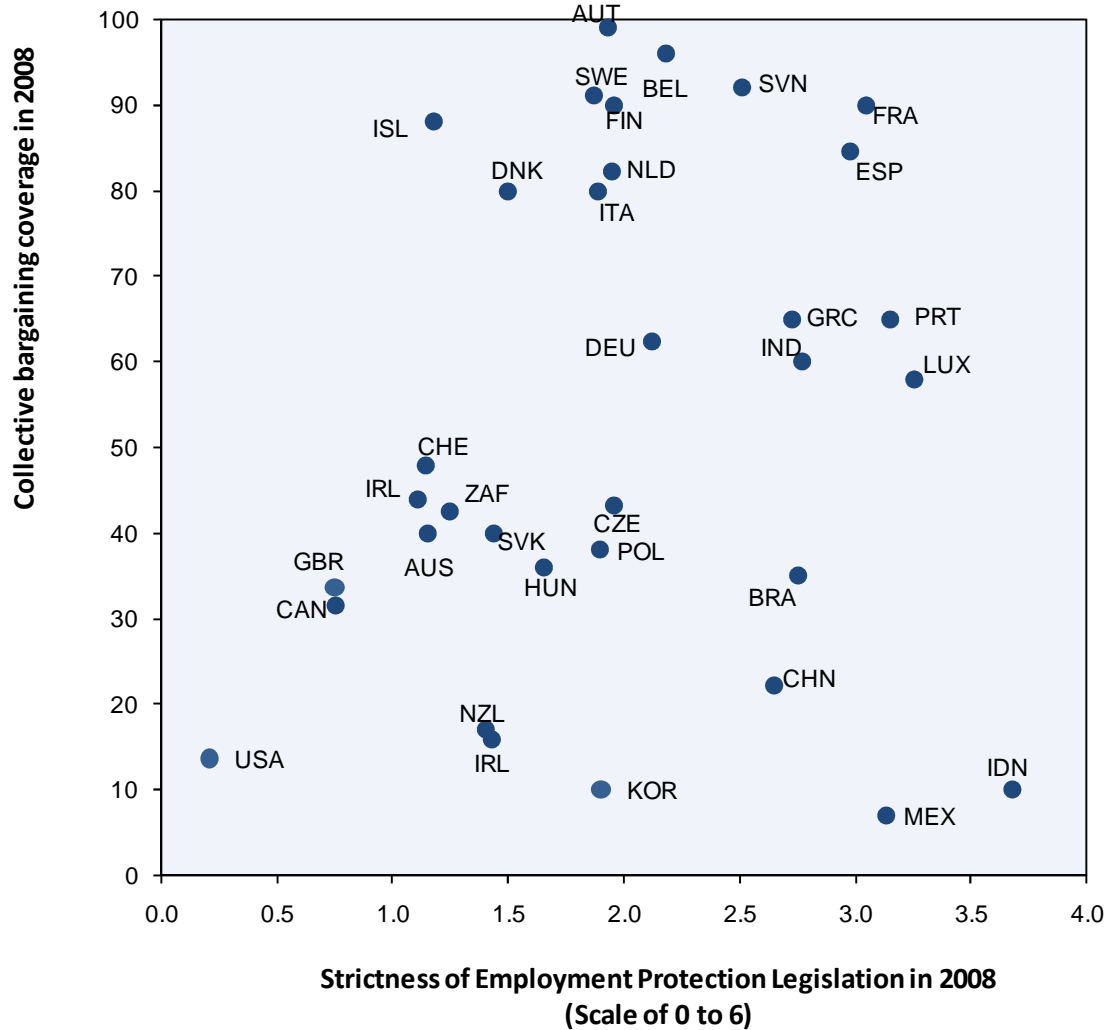
Source: ILS based on EIRO, ICTWSS and national sources.

The information collected in Table 1 vastly reflects the experience of industrialized economies, where the strength of EPL tends to be highly correlated with other labour market institutions. On the contrary, in the case of developing and emerging economies, strictness of EPL is associated with low coverage of collective bargaining. For example, in the lower right

⁸ For more, see: ILO Convention No. 98 concerning the application of the principles of the right to organize and bargain collectively; Convention No. 154 concerning the promotion of collective bargaining.

hand corner in Figure 2 are Brazil, China, Indonesia, and Mexico – countries that have very high strictness of EPL but low collective bargaining coverage. If these countries are excluded from the chart, there is a positive relationship between the coverage rate and strictness of EPL, with countries such as Ireland and the US at the lower end, while countries such as France and Spain at the higher end.

Figure 2: Collective bargaining coverage and strictness of employment protection legislation (EPL)



Source: ILS based on data from the OECD and ICTWSS.

There is a considerable literature on the links between the degree of centralization of collective bargaining and macroeconomic performance. In particular, examining the 1970s and the 1980s, Bruno and Sachs (1985) find a positive association between centralization and macroeconomic performance as measured by lower inflation and/or lower unemployment rate. The rationale for this empirical result primarily lies in the fact that firms tend to internalize externalities when bargaining takes place at a centralized level (for e.g., national level). In the late 1980s, Calmfors and Driffill (1988) opened a long-lasting debate questioning this linear association by showing that there is a hump-shaped relationship between centralization of collective bargaining and macroeconomic performance. In other words, the best macroeconomic results are obtained for full centralization (i.e., at national

level) and for full decentralization (i.e., at firm level), while the worst macroeconomic results are associated with intermediate levels of centralization.

Following the study by Calmfors and Driffill (1988), academic research has focussed on either supporting or rejecting the non-linear link between collective bargaining and macroeconomic performance. One of the main criticisms of the study is that the authors focussed heavily on the level at which agreements were struck and not enough on informal forms of coordination amongst social partners. For example, Japan is decentralized but highly coordinated. After taking into account the degree of coordination in countries, the relationship appeared to be rather linear.⁹ The OECD in 1997 also showed that there was no convincing evidence in support of the Calmfors and Driffill result in the 1990s. Most recently, some studies have shown that collective bargaining institutions have no impact on employment performance in the OECD countries (See Traxler and Brandl, 2011). Meanwhile, economic research has evolved towards analysing the impact of collective bargaining on macroeconomic performance by examining the type of shocks, while industrial relations research has focussed on looking at the impact of collective bargaining on wage inequality.

Macroeconomic performance differs depending on the type of shocks and the collective bargaining structure. Full centralization allows countries to better respond to generalized macroeconomic shocks, while when the shock is sector or industry specific, such systems tend to suffer and are slower to respond. This is mainly due to the fact that sector specific shocks ultimately require adjustments to relative prices for recovery to take place. This shows that besides the design of collective bargaining, the type of shocks are pertinent to better understanding macroeconomic outcomes.

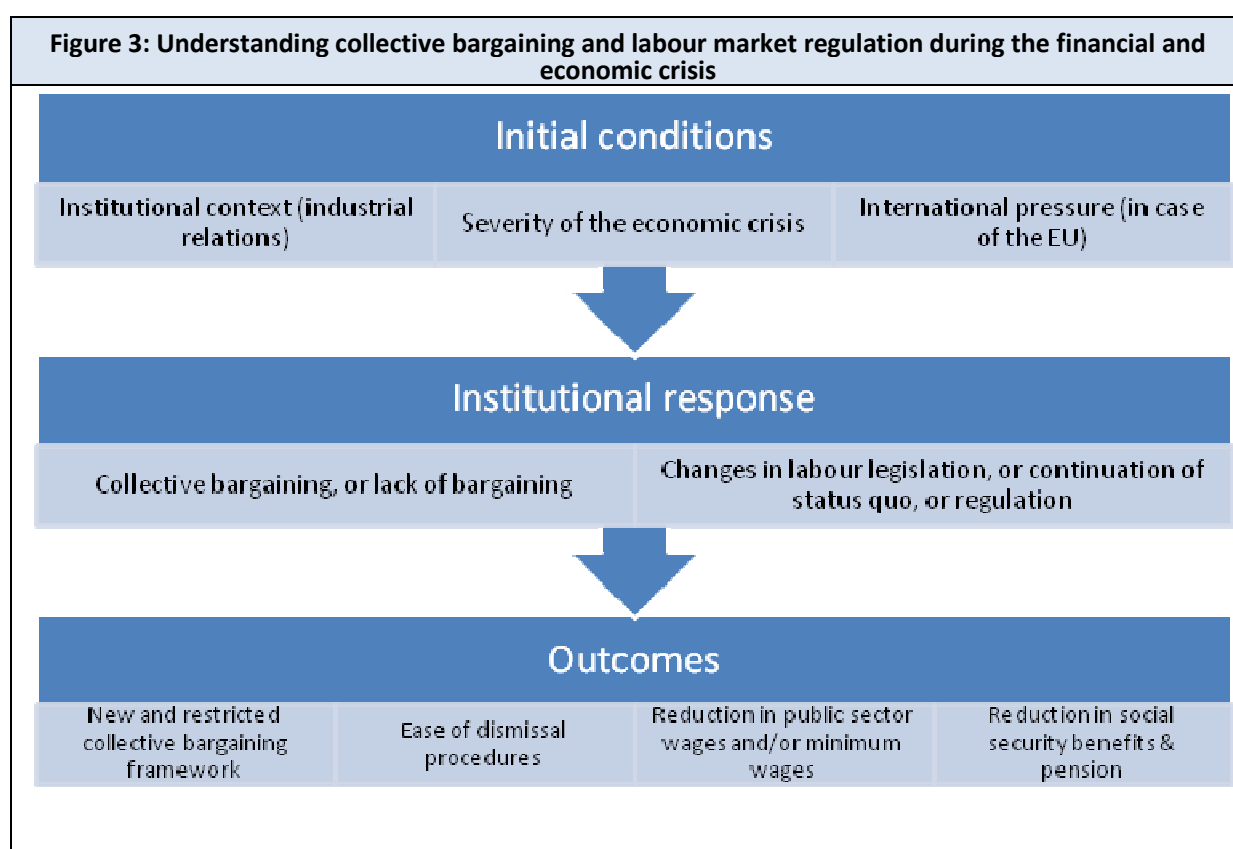
Meanwhile, examining aggregate macroeconomic outcomes could potentially hide the distributional impact of collective bargaining. For example, according to the OECD (2004), an intermediate level of centralization and coordination increases the relative wage of older workers (55-64) and women. More recently, the economic literature in this discipline has focussed on other characteristics of collective bargaining and their role in creating nominal wage rigidities. For example, the duration of collective agreements, when they cover relatively long time period, tend to increase nominal wage rigidities. This in turn leads to higher persistence of unemployment rate deviations from its structure rate (Blanchard and Galí, 2010). Furthermore, studies have shown that among advanced economies, coverage and centralization of collective bargaining play a role in reducing wage inequality but the size of these effects is rather debatable (see, for e.g. Wallerstein, 1999, and Golden and Londregan, 2006). In case of developing economies, empirical evidence shows that unions reduce overall wage dispersion in the labour market (Hayter and Weinberg, 2011). Within country studies corroborate these findings – they show that centralized wage bargaining reduces wage dispersions (Kahn, 1998).

To sum up the empirical evidence on collective bargaining, since the 1990s there is a trend in Western economies towards deregulation and decentralization despite experiences in Europe (and elsewhere) that bargaining has indeed facilitated the adaptability of enterprises to the macroeconomic shocks while saving jobs (mainly through reductions in working hours) (Hayter, 2012). Moreover, the discussions over the design of collective bargaining has moved away from virtues of centralization and coordinated structures to the virtues of firm-level bargaining. Not surprisingly, the period of decentralization and deregulation is also associated with a general increase in wage inequality. Despite these findings, the recent financial and economic crisis has further accelerated the move towards decentralization.

⁹ Recent studies tend to focus more on the degree of coordination rather than the level of bargaining. For the empirical analyses, this paper also uses coordination instead of bargaining level.

2. EPL and industrial relations during the global crisis

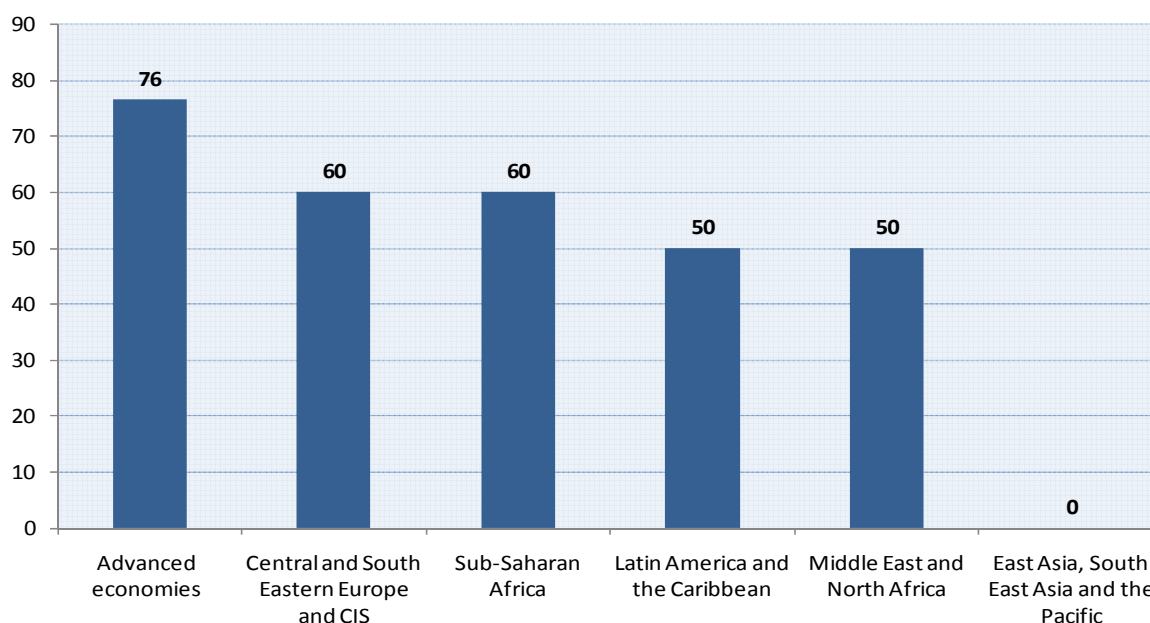
In order to understand the changes in employment protection and collective bargaining in the last few years, it is key to look at the initial conditions that countries were faced with (Figure 3). First, the existing industrial relation and collective bargaining framework played an important role in determining how countries responded to the crisis. For example, in countries where collective bargaining was relatively strong (as measured by coverage rate and union density), the response to the crisis included extensive consultations with social partners. Second, the severity of the crisis differed across countries and that played an important role in countries' response. Furthermore, the debt overhang exacerbated the response in many troubled economies. Third, international pressures, most notably in the European Union have played an important role in steering some countries toward further deregulation of their labour markets. Given the initial conditions, the institutional response has greatly varied across countries.



Against the backdrop of weak job creation, poor growth prospects and constrained fiscal space, there has been an increasing trend towards making modifications to employment protection legislation as part of broader labour market reforms. In fact, approximately 40 countries out of 131 (equal to 31 per cent) have changed their employment protection legislation for permanent employees (Figure 4). This trend is particularly prominent in the EU-27, where changes in employment protection for permanent workers occurred in 19 out of 27 countries.

Figure 4: A global overview of changes in employment protection legislation, 2008–2012*

Panel A: Out of all the countries with legislative changes in employment protection legislation for permanent contracts, the percentage of those that reduced protection



Panel B: Summary of all changes

Region	Permanent contracts			Temporary contracts		Collective dismissals	
	Countries with available information	Percentage of countries with any change	Percentage of countries with negative changes out of the ones that changed legislation	Percentage of countries with any change	Percentage of countries with negative changes out of the ones that changed legislation	Percentage of countries with any change	Percentage of countries with negative changes out of the ones that changed legislation
Advanced economies	35	49	76	26	44	29	50
Central and South Eastern Europe and CIS	20	50	60	40	100	30	83
East Asia, South East Asia and the Pacific	10	30	0	0	N/A	0	N/A
South Asia	7	14	0	0	N/A	0	N/A
Latin America and the Caribbean	19	11	50	0	N/A	0	N/A
Middle East and North Africa	9	22	50	11	0	33	0
Sub-Saharan Africa	31	16	60	13	75	19	83
Total	131	31	60	18	65	19	60

Note: Changes in employment protection legislation refer to all changes – whether resulting from legislation, case law or collective bargaining. “Countries with negative changes” refers to reductions in the stringency of employment regulations for permanent and temporary employment (e.g. notice periods, severance payments, valid grounds for dismissal, probationary periods, maximum length of fixed-term contracts) as well as for collective dismissals (e.g. definition of collective dismissal, consultation with workers’ representatives and public administration). *Cut-off date is March 2012.

Source: ILS based on EIRO, ILO EPLex database and national sources.

Furthermore, the changes to legislation for permanent employees have focused primarily (in 60 per cent of the cases of countries that made changes to their legislation) on lowering overall protection. This is particularly the case in advanced economies, where 76 per cent (13 countries) of the interventions have reduced employment protection for permanent employees (Figure 4, panel A). These reforms have generally taken the form of

increasing probationary periods, expanding the grounds for justified dismissal, reducing severance payments and notice periods and weakening the remedies in the case of unfair dismissals. Besides the advanced economies, 60 per cent of the countries in Central and South-Eastern Europe that adopted any change in their legislation (6 out of 10 countries) reduced protection for permanent workers. The story is similar for countries in sub-Saharan Africa. Countries in Latin America and the Caribbean and the Middle East and North Africa also reduced protection – half of all the countries that put in place any change to their labour legislation.

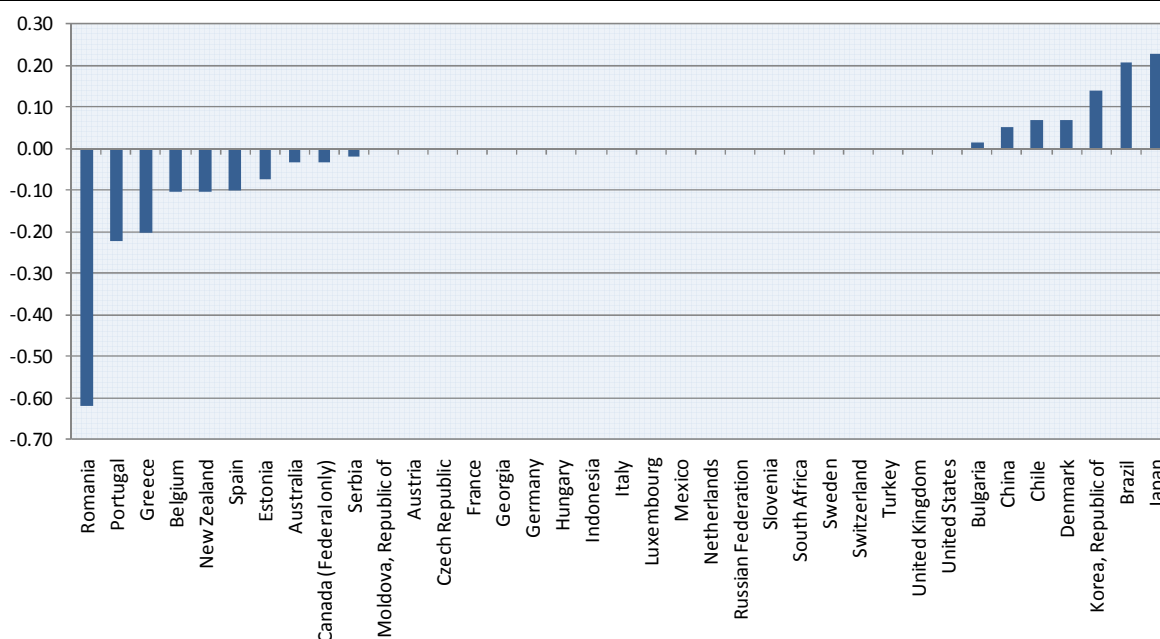
Meanwhile, 23 countries out of 131 (18 per cent) have modified their legislation for fixed-term contracts (also known as temporary contracts) – out of these, 15 countries (65 per cent) reduced employment protection for fixed-term employees by increasing the maximum length of fixed-term contracts, increasing the number of reasons for their conclusion and reducing the level of protection ascribed to them (Figure 4, panel B). In particular, in Central and South-Eastern Europe, all the interventions on fixed-term employment have reduced employment protection. Meanwhile, in the case of advanced economies, less than half of all countries with any legislative change reduced protection for temporary workers.

Furthermore, 25 countries out of 131 (19 per cent) have made changes to the legislation governing collective dismissals for economic reasons. In 60 per cent of these cases (15 countries), the new legislation facilitates the use of collective dismissals, for example, by reducing the administrative procedures to be followed or increasing the numerical benchmark above which a dismissal is considered collective. In Central and South-Eastern Europe and sub-Saharan Africa the changes in the legislation of collective dismissals have relaxed the regulation in 83 per cent of the cases.

In order to quantify these changes, employment protection legislation indicators based on the OECD methodology¹⁰ were updated for the year 2010/11 for 43 countries. Changes which took place between the pre-crisis (2007/08) and post-crisis (2010/11) period could be identified, not only for the overall “indicator” (Figure 5), but also for each of the three components capturing respectively: (i) the legislation for individual permanent contracts; (ii) the legislation for temporary contracts; and (iii) the legislation applying to collective dismissals. The analysis confirms the shift towards less protection among the 43 countries and that it was particularly pronounced in Southern and Eastern Europe. In contrast, the analysis also shows some countries reinforced their employment protection (mostly key emerging economies, but also Denmark, Japan and the Republic of Korea).

¹⁰ See www.oecd.org/employment/protection for more information.

Figure 5: Change in the “employment protection legislation index” between 2007/08 and 2010/11



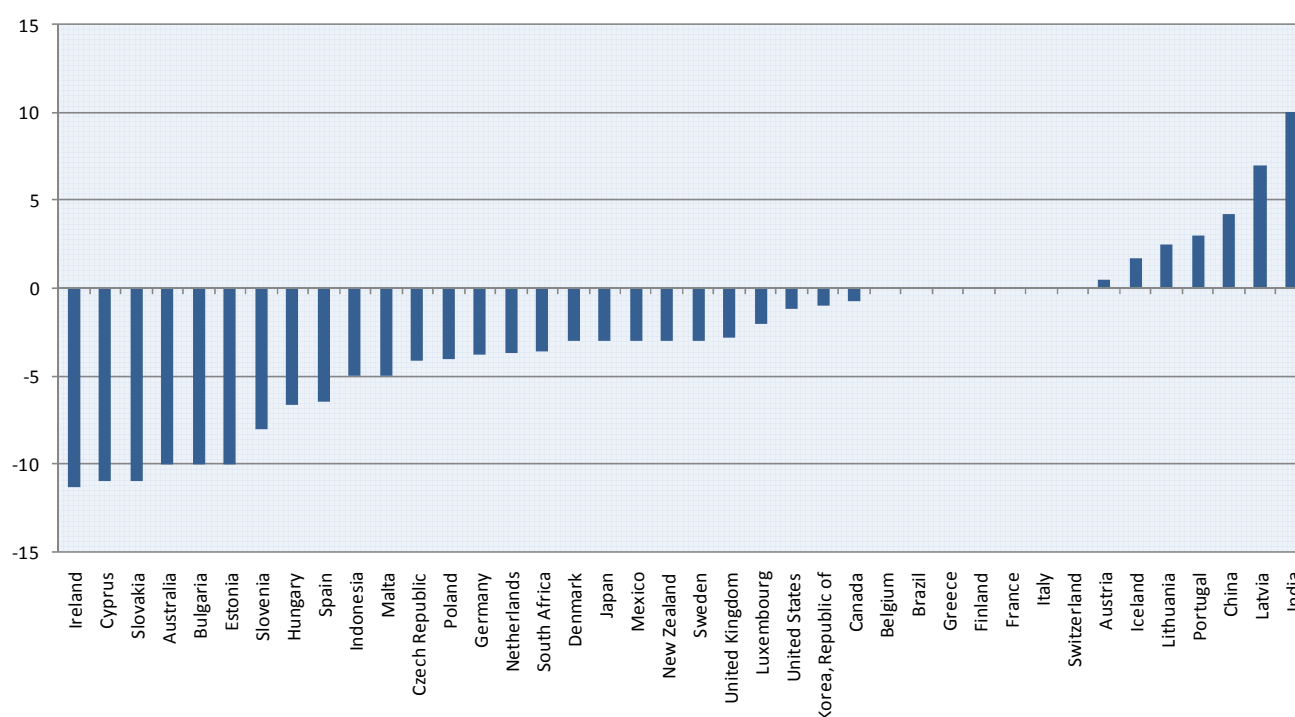
Notes: An increase in the value of the “index” denotes that legislation is more stringent and a reduction in the value of the “index” indicates less stringent legislation.

Source: ILO estimates based on OECD methodology (www.oecd.org/employment/protection) and ILO EPLex database.

Leading up to the global crisis, industrial relations were already under strain, but the process of decentralization and deregulation has been hastened by the crisis. In some instances, collective bargaining has been regarded as an impediment to the correct functioning of the economy and social partnership viewed as an obstacle to implementing austerity and anti-crisis measures. These reforms have promoted the decentralization and/or the deregulation of collective bargaining – for example, by introducing opt-out clauses to sectoral agreements or giving greater legal validity to firm-level bargaining. This trend is particularly evident in those countries where the presence of established collective bargaining institutions has provided room for deregulation. In particular, in 60 per cent of countries in Central and South-Eastern Europe, there has been a move towards deregulation and decentralization of collective bargaining (for example, Hungary, Lithuania and Romania). In many cases, reforms have reduced workers’ representation rights by generally increasing the requirements for creating a trade union or limiting the ability to call a strike.

Meanwhile, 26 out of the 40 countries where the data on bargaining coverage is available have shown a decline in the coverage rate between 2000/01 and 2008/09 (Figure 6). Some of the decline is attributable to the broader trend that was already taking place before the crisis, while in many others the decline was accelerated by the financial and economic crisis.

Figure 6: Proportion of workers covered by collective agreements (change between 2000/01 and 2008/09 in percentage points)



Note: The 2000/01 data for Bulgaria, Brazil, Cyprus, Indonesia, Latvia, Lithuania, Malta, Mexico, Portugal, Republic of Korea and South Africa refers to either 2002 or 2003. Similarly, the 2008/09 data for Australia, Denmark, Estonia, Finland and New Zealand refers to 2007 data. Definition of coverage: employees covered by wage-bargaining agreements as a proportion of all wage and salary earners with the right to bargain. The figures are adjusted for the possibility that some sectors or occupations are excluded from the right to bargain (removing such groups from the employment count before dividing the number of covered employees by the total number of dependent workers in employment, see Traxler 1994).

Source: ICTWSS database.

3. Employment regulations: labour market and macroeconomic performance and well-being

Impact on labour market performance

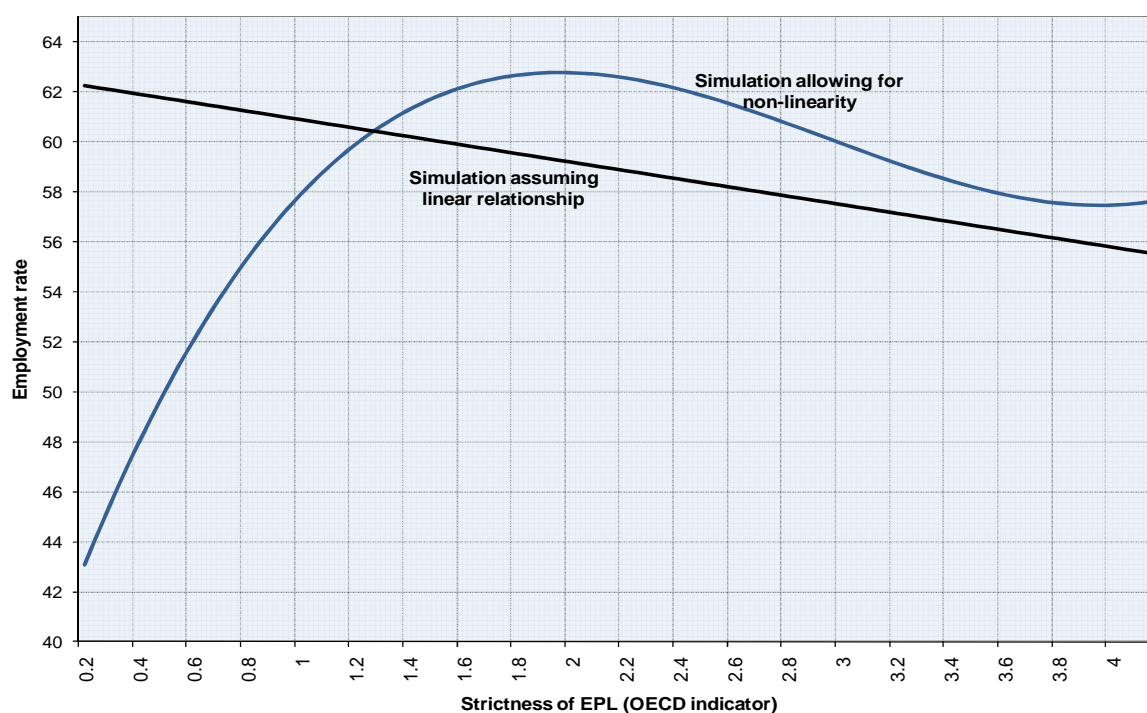
As Section I pointed out, a gamut of past studies on employment protection legislation (EPL) find rather ambiguous impact on aggregate employment rate. This could be due to the fact that most studies on the effects of EPL take a cross-country approach and concentrate on the link between EPL and aggregate stock data, e.g. the effects on employment or unemployment levels. Another possible explanation may be provided by the lack of satisfactory indicator (as detailed in Box 1). Empirical work exploring the effect of EPL based on disaggregated information (by gender or age; as well as within country studies) finds some impact of EPL on particular groups.¹¹ In particular, Bassanini and Duval (2006) find no impact of EPL on male employment but a negative impact on female employment. Furthermore, the authors identify a positive relationship between EPL and the employment of

¹¹ For a review of these effects, see for example Cazes and Tonin, 2010.

older workers (male and female) but a negative or zero impact for younger workers. Indeed, the simulations conducted for this paper suggests that there is a non-linear relationship between EPL and employment rate.

First, as in the case of most past studies, using a linear relationship between EPL and employment rate suggests that going from the lowest value for EPL (for e.g. the US) to the highest value (for e.g. Portugal), the employment rate decreases from 62 per cent to 55 per cent (Figure 7). Note that this is not a huge difference considering the difference in strictness between countries with an EPL score close to 0 to countries with a score close to 6. Second, when the simulations assume a non-linear relationship between EPL and employment, there is a plateau between the EPL index score of 1.6 and 2.6, where the increase or decrease in the stringency of EPL has little or no impact on employment.¹² Furthermore, the negative impact of EPL on employment kicks in only above the strictness of around 2.6, and approximately more than two thirds of the OECD countries lie below the EPL score of 2.6. This simple exercise shows that the impact of EPL on aggregate employment rate is far from being a linear negative relationship. In fact, at very low levels of employment protection, increases in EPL stringency are associated with a higher employment rate. Hence, the debate has been wrongly focussed on “less regulation versus more regulation” while it is about a level of strictness that would maximize employment.

Figure 7: Relationship between EPL and aggregate employment rate



Notes: Simulations are based on fixed-effects estimations on the employment rate using actual data for 34 countries. See Appendix.

¹² This is consistent with the results presented in World Development Report, 2013, World Bank (forthcoming).

Within the flexibility debate, the question of EPL as a driver for labour market dualism has been increasingly attracting interest, in particular in Southern European countries such as Spain, Italy and Portugal. Though the crisis of 2008-2009 brought a lot of focus on the duality in OECD labour markets, it is by no means a new phenomenon. As discussed by Boeri (2010) and Eichhorst and Marx (2011), this pattern has been developing in European labour markets over some decades as a consequence of partial (or two-tier) labour market reforms. Typically, governments have focused on reforms at the margin in terms of deregulating the use of fixed-term contracts and agency work rather than reducing protection for workers on permanent contracts. The share of temporary employees increased on average in the European Union from 9.0 per cent in 1987 to 15.1 per cent in 2006, before the crisis hit these workers, which resulted in a fall in the share (13.6 per cent in 2009). Given the different treatment to different groups of workers, the effects of those EPL partial reforms have been disproportionately felt by new entrants (youth, women, immigrants) as well as low skilled and less experienced ones (Khan, 2007; Dolado et al. 2007).

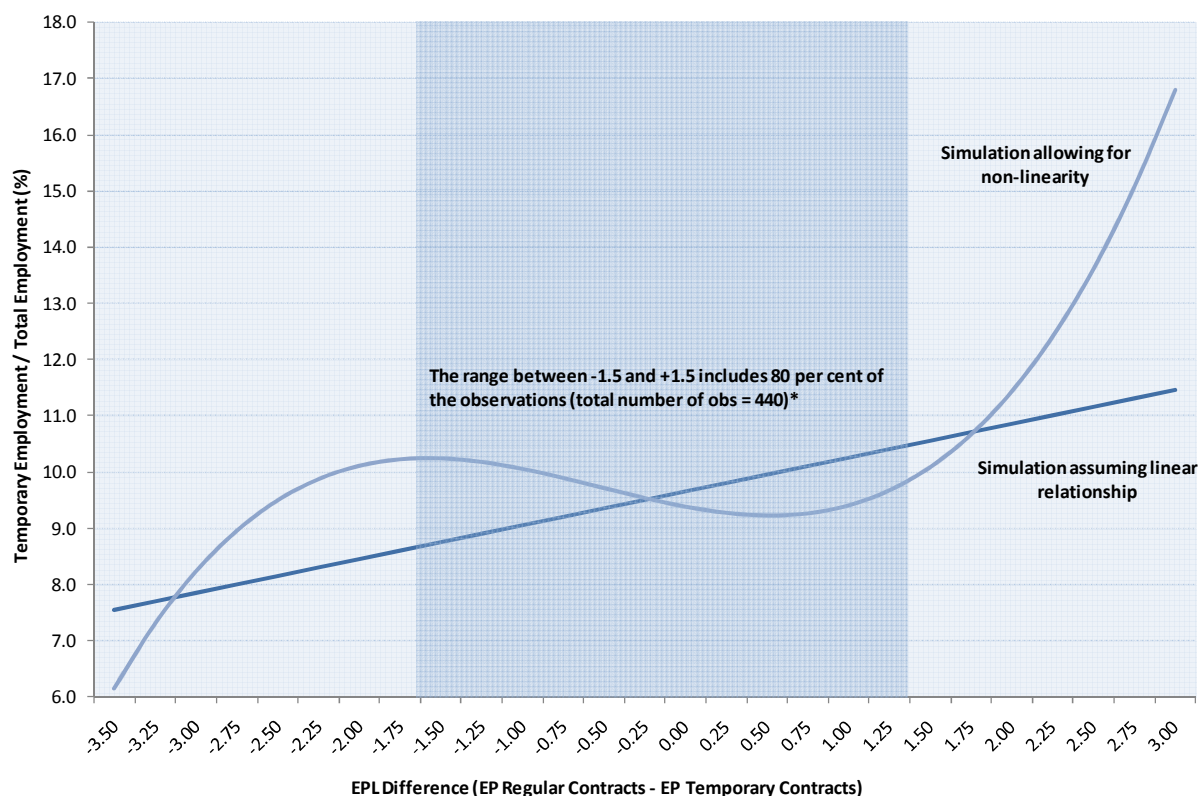
Whether this contractual duality intensified *during* the job crisis of 2008-09 is not straightforward. First, the relationship between EPL and duality in the labour markets still needs to be further investigated both theoretically¹³ and empirically given the various effects (direct, substitution) EPL structure may ultimately have on labour market segmentation. Second, in times of crisis, the (few) firms which hire tend to use mostly fixed-term contracts due to high uncertainty in demand patterns; at the same time, the (many firms) which reduce their labour force disproportionately affect non-standard forms of employment, in particular fixed-terms contracts.¹⁴ This contractual duality has created an objective increase in instability (as measured by shorter tenure) among youth (see Cazes and Tonin, 2010). This may have contributed to an overall feeling of insecurity and dissatisfaction.

Indeed, past data show that the link between labour market duality and EPL is far from linear. In recent years, several authors have stressed the role of relative strictness of EPL between regular and temporary contracts to better understand the impact on labour market duality (see Boeri and Garibaldi, 2007). According to this reasoning, the key determinant of labour market duality is the gap between the stringency of EPL for regular and temporary workers. Indeed, simulations presented in Figure 8 show, when considering a linear relationship, which is the classic assumption in the literature, as the gap in stringency goes up, the share of temporary employment in total employment goes up. However, when considering a non-linear relationship, this positive association holds only for the extremes – that is, when the difference in stringency is very high (see Figure 8). For the intermediate gaps (say between -1.5 and 1.5), the employment rate has a variability of around 1 percentage points and more than 80 per cent of the observations are in this range. This basically suggests that simply decreasing the stringency of EPL will not lead to a systematic reduction in labour market duality.

¹³ There are fewer studies that model reforms in the context of dualism between permanent and temporary contracts. Except for Boeri (2010) based on a Mortensen-Pissarides type model.

¹⁴ For more see: Cazes and Tonin (2012, forthcoming), “Labour Market Duality in Times of Crisis: An European Perspective.”

Figure 8: Relationship between relative strictness of EPL for regular contracts with respect to temporary contracts and labour market duality (temporary employment over total employment)



Notes: Simulations are based on fixed-effects estimations on the temporary employment rate using data for 30 countries. See the Appendix for details. *One country usually has more than one observation as the estimations use panel data.

Since those reforms were introduced in hope to boosting employment and tackle unemployment, empirical analysis is done on the relationship between employment protection legislation (EPL) and various aggregate labour market outcomes. To assess possible EPL effects, cross-country analysis is conducted for a range of OECD countries comparing pre-crisis (2007) and post-crisis (2010) situations. More specifically, the change¹⁵ that occurred in various labour market outcomes between 2007 and 2010 is regressed on the change in GDP that occurred in the same period and on the level of employment protection as measured by the OECD indicator for 2008.¹⁶ In particular, aggregate unemployment rates — both for the whole workforce and for youth — employment-population ratio, and the share of permanent employment among employees are used as dependant variables to test how EPL is related to the labour market response to the crisis: for instance, whether, for a given drop in GDP, unemployment responded more or less strongly in countries that entered the crisis with a higher level of employment protection legislation (see appendix for a precise definition of each variables).

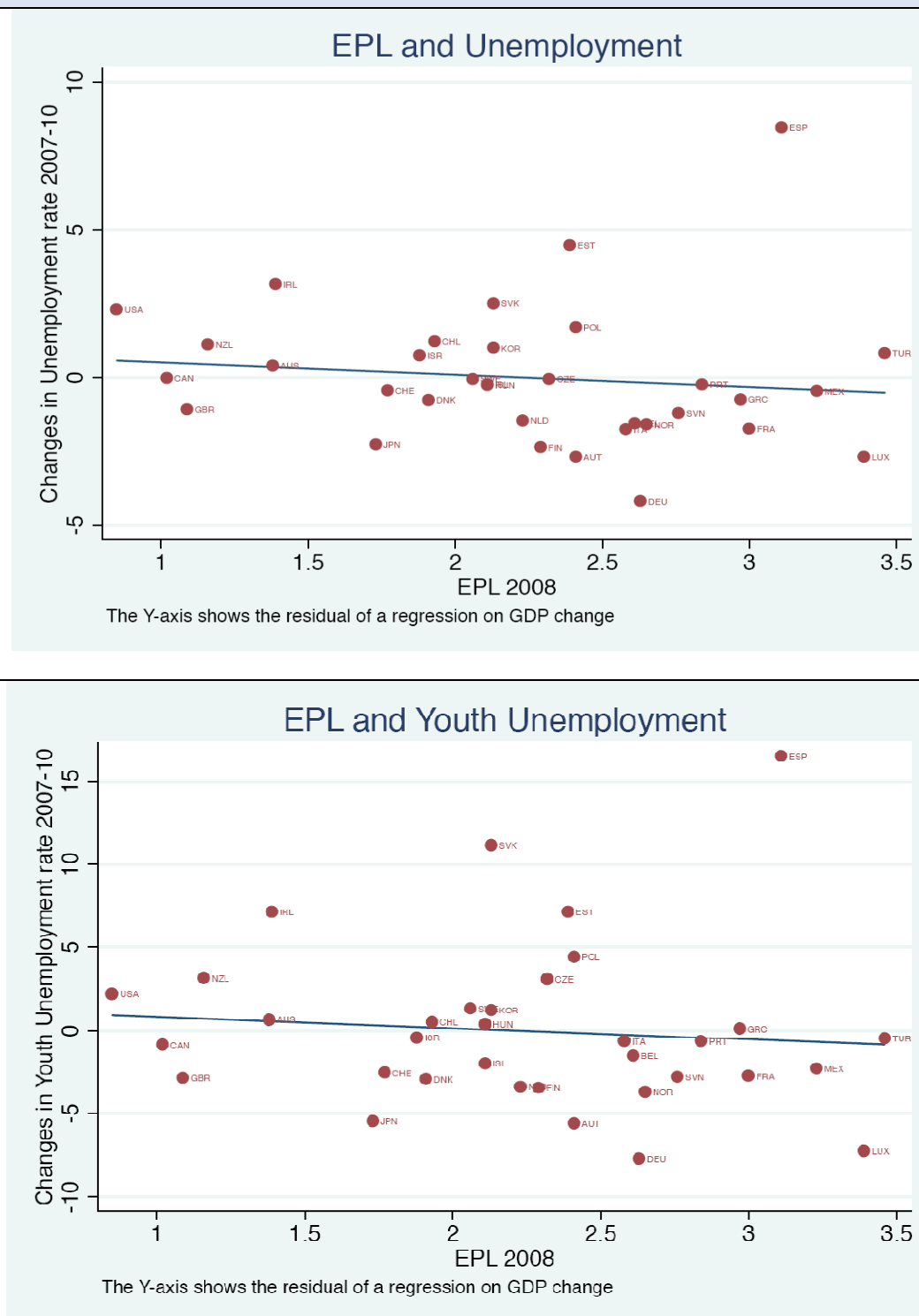
Since the structure of EPL may be expected to impact on the outcomes, the impact of both the overall EPL index and of the three sub-indexes on regular and temporary contracts

¹⁵ The point of looking at changes instead of levels is that any time-invariant differences across countries are cancelled out.

¹⁶ The reason for using EPL 2008 and not the updated indicators presented before is due to the fact that those labour market outcomes (e.g. employment, unemployment rates) are not yet available for 2011, while most of the legislative reforms took place in 2010-2011, some of them being announced but not actually implemented. Those EPL effects cannot be expected to be detected on 2010 figures.

and on collective dismissal is considered in the analysis. As a robustness check, some specifications also include control variables such as the trade union density in 2007 and the degree of coordination of wage bargaining in 2007 as coded in the ICTWSS dataset. Finally, both the absolute and the relative change in the labour market performance variables have been tested.

Figure 9: Relationship between aggregate unemployment (including youth) and EPL



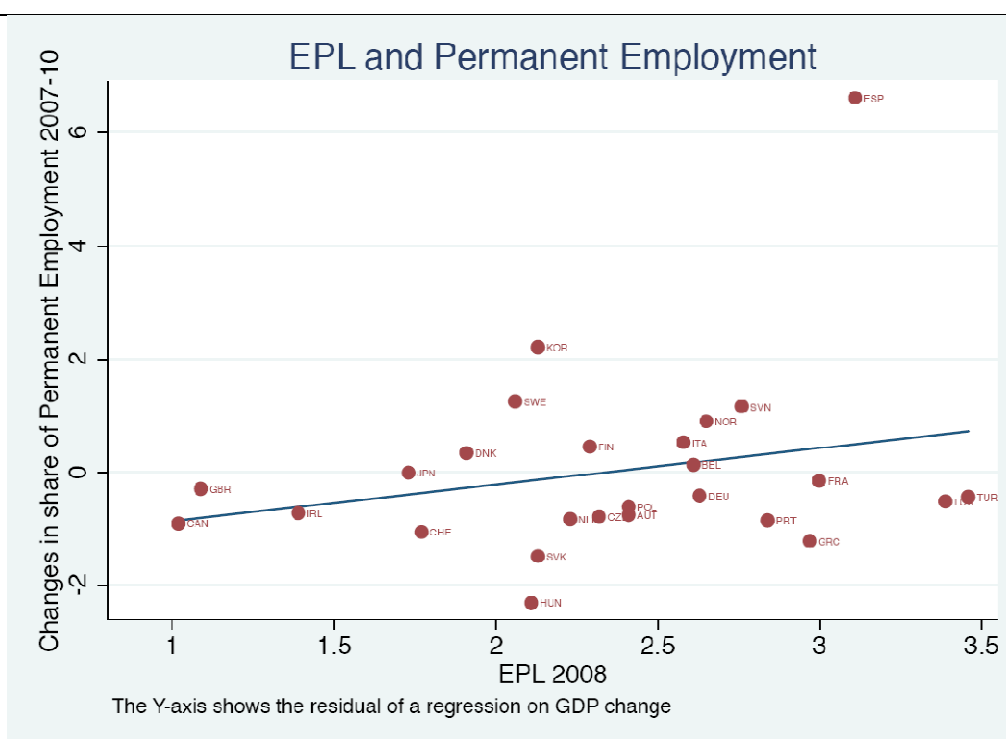
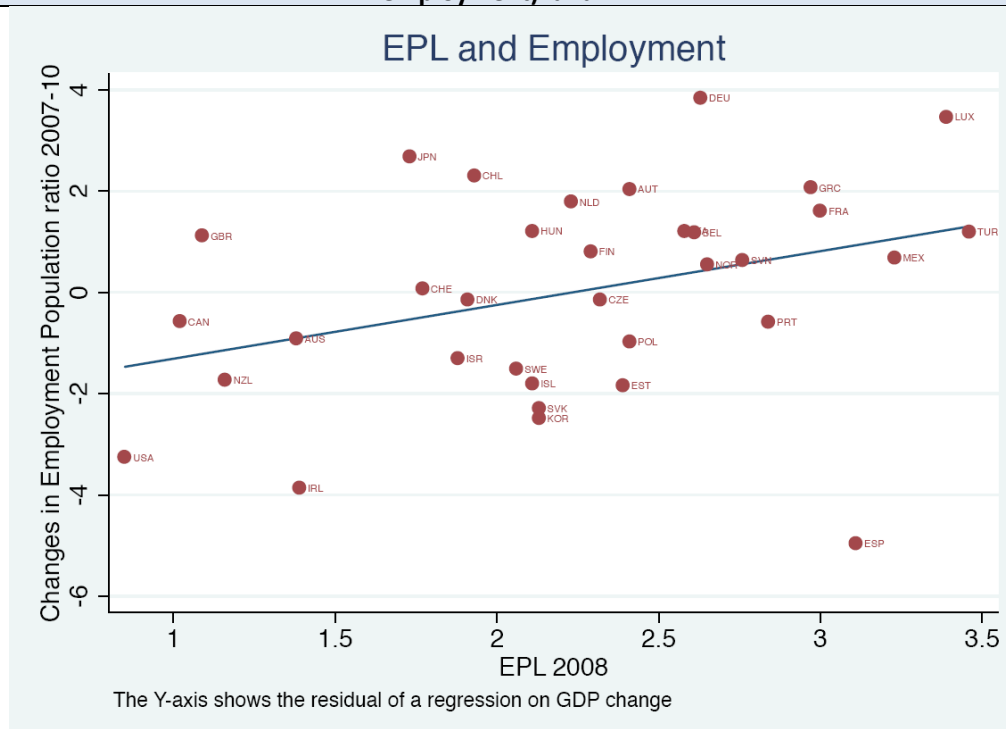
Source: ILS based on newly available EPL data from the ILO Employment Analysis Dept.

Figure 9 displays the relationship between the changes in the aggregate unemployment rates (overall and youth respectively) and employment protection legislation (here overall EPL). The scatter plots show that, after controlling for the change in GDP, there seems to be no significant relationship between the EPL and unemployment outcomes. As discussed above, while most of the economists are sceptical of a link between EPL and aggregate unemployment, many agree that EPL could have an impact on youth unemployment (Kahn 2007; Addison and Teixeira 2003; Botero et al. Autor et al. 2006; Cahuc and Zylberberg, 2004). Figure 9 does not support this view as the response of youth unemployment to the crisis was not significantly different according to EPL in the sample of OECD countries tested here. In a recent comprehensive paper, Noelke also rejects the view that strict EPL was or had been the cause of high youth unemployment rates; his analysis covers more or less the same group of countries but for the pre crisis period.

Figure 10 shows the relationship between the changes in the aggregate employment (overall and permanent respectively) and employment protection legislation. Contrary to former figures, there is some suggestive evidence of a positive impact of the overall EPL index on the employment rate. This is apparent from Figure 10 that plots the relationship between EPL and the absolute change in the dependent variable after netting out the effect of GDP changes (significant at 5 per cent level). However the relationship is not significant anymore (p-value: 11 per cent) when control variables such as trade union density or coordination are introduced. This is not surprising given the lack of robustness of such cross-countries studies. However, it is an interesting result in giving some support to Figure 7 above which challenged the existence of a systematic negative EPL effect on employment.

As for the employment structure, there seems to be no significant relationship between the change in the share of permanent employment among employee and EPL as indicated by the small and non significant value of the coefficient (Figure 10, lower panel). This is not surprising given the complex relationship between EPL and labour market duality as discussed before. It confirms that some cautious recommendations should be made in the debate on the role played by EPL on increasing labour market duality. As said before, assessing causality between EPL and dual labour markets is a not straightforward exercise. For example, there is no clear consensus on which EPL variable ought to be used to best capture the impact of the legislation on permanent and/or fixed-term contracts. Also, EPL effects are likely to dominate the labour market segmentation.

Figure 10: Relationship between aggregate employment (including the share of permanent employment) and EPL

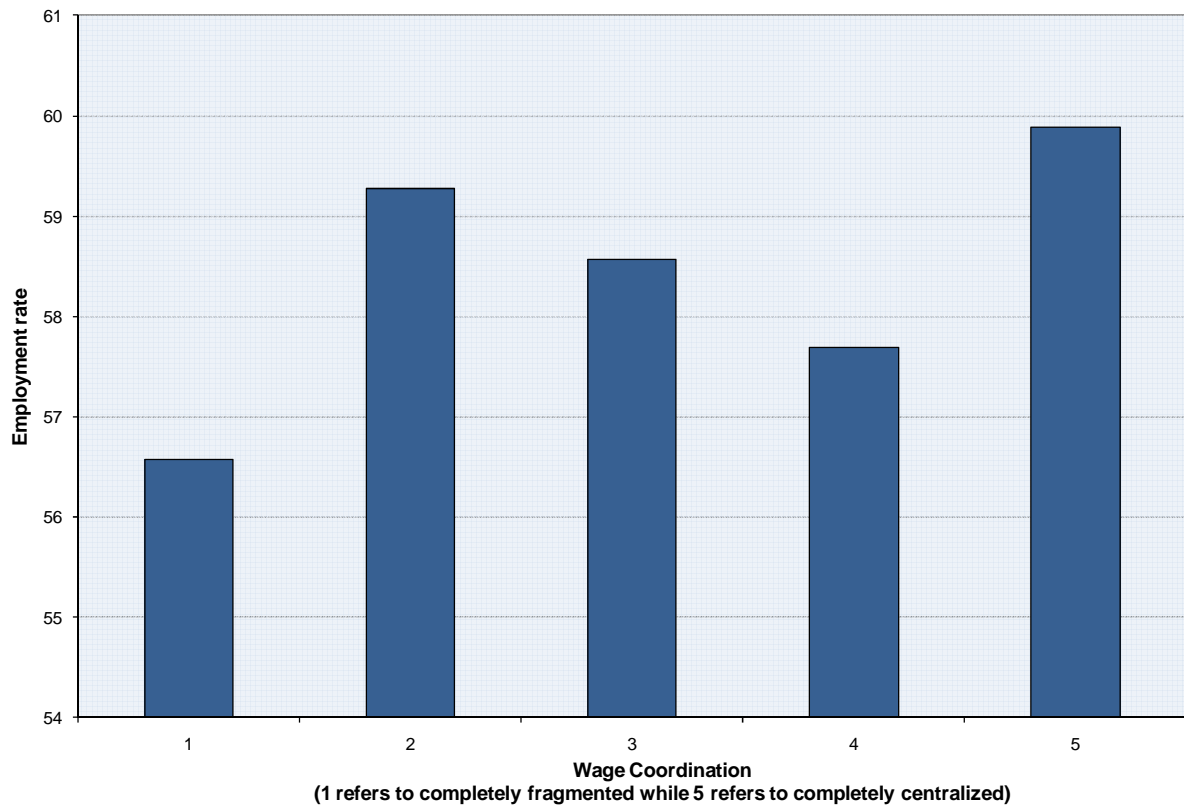


Source: IILS based on newly available EPL data from the ILO Employment Analysis Dept.

As section I and II showed, there has been a general move towards decentralization and deregulation of collective bargaining and the financial and economic crisis hastened this

trend. The primary rationale behind this is that higher levels of coverage and a more centralized level of bargaining has a negative impact on aggregate employment while a decentralized level of bargaining has a positive impact. In fact, simulations following the same guidelines as before show that the level of coordination over wage-setting is non-linear (Figure 11). The lowest employment rate is associated with a coordination value of 1, which stands for not only full decentralization but also fragmentation (i.e. disorganized decentralization meaning that negotiations over wages is not only at firm level but also without any coordination). For coordination values of 2 to 5, there is a U-shaped relationship between employment and bargaining. In other words, the highest employment rates occur in a fully decentralized but organized bargaining system (score of 2), and in a totally centralized bargaining system (score of 5). Meanwhile, in intermediate level of coordination, there is a relatively lower employment. To sum up, not all decentralization in bargaining has a favourable impact on employment. In fact, disorganized decentralization has a negative impact on employment and is associated with even worse results than intermediate levels of coordination.

Figure 11: Coordination of wage bargaining and employment rate



Notes: Simulations are based on fixed-effects estimations on the employment rate. See Appendix.

Impact on macroeconomic performance

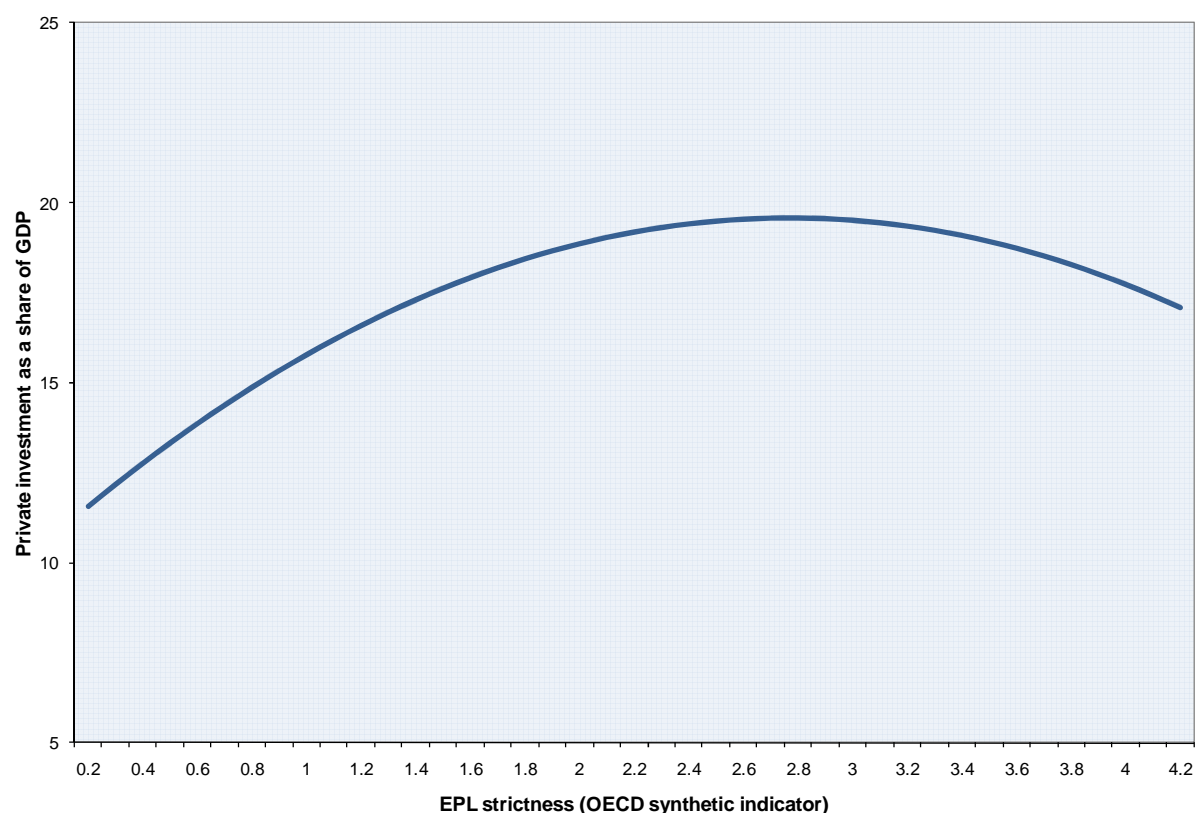
As Section I showed, most studies that examine the relationship between EPL and macroeconomic performance tend to use GDP growth as the dependent variable. While it is a fairly straightforward indicator of macroeconomic performance, it is difficult to tease out the relationship between EPL and GDP growth. Not surprisingly, most studies find no or insignificant relationship between the two variables. In this paper, a novel approach is employed by looking at the link between EPL and private business investment (i.e., private sector gross fixed capital formation as a percent of GDP). The impact on investment stems from the fact that decision regarding allocation of capital, besides labour, is also dependent on labour market regulation.

The impact of EPL on investment could be either positive or negative. First, strictness of EPL might discourage businesses to expand production, resulting in a lower aggregate investment. Second, in industries where labour and capital are complementary factors of production, the impact of EPL on employment and investment would be in the same direction (either positive or negative depending on the employment intensity). Third, a relatively strict EPL might discourage the use of labour and encourage firms to adopt capital intensive technologies, therefore increasing aggregate investment. In sum, all this points to the fact the net effect of EPL on investment is far from linear and simplistic.

Indeed, Figure 12 shows a hump-shaped relationship between private sector investment and strictness of EPL. Moreover, there is a plateau between the EPL score of 2.4 and 3.4, where the change in the stringency of EPL index has a negligible or no impact on private business investment.¹⁷ It is only after the score of 3.4 there is a negative relationship between employment and investment, but note that Turkey is the only OECD country where the EPL score is higher than 3.4 (2008 data). This is consistent with the relationship between EPL and employment rate presented earlier in the paper. Meanwhile, in case of developing and emerging countries, there are not enough data points to carry out simulations but simple correlations show that there is a positive relationship between EPL and private sector investment.

¹⁷ This is consistent with the results presented in World Development Report, 2013, World Bank (forthcoming).

Figure 12: Relationship between EPL and private sector gross fixed capital formation in developed countries



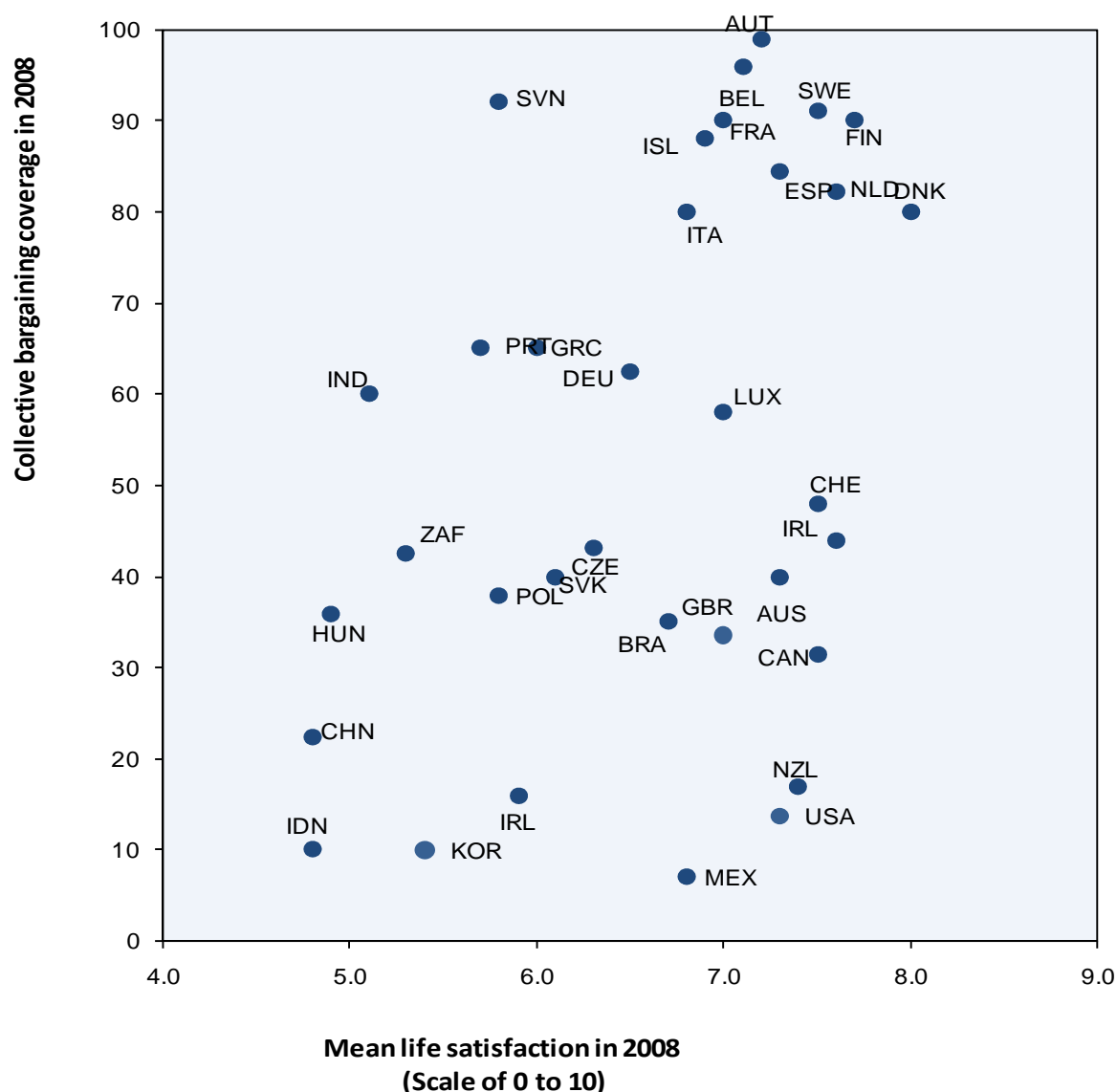
Notes: Simulations are based on fixed-effects estimations on the employment rate. See Appendix.

Impact on life satisfaction

Previous studies have tried to examine the link between employment protection and perceived job security and psychological well-being, but the results have been largely inconclusive. Conventional wisdom says that perceived security increases with stricter regulation as the risk of being fired gets reduced (Skedinger, 2010). However, studies have shown that in fact permanent employees and the ones in temporary jobs feel more insecure with stricter EPL (see: Böckerman, 2004; Clark and Postel-Vinay, 2009); although this might be because the survey responses captured perceived labour market security instead of job security. This could stem from the so called “locking-in effect” where permanent employees feel like they cannot leave their current job because they perceive the likelihood of finding a new job to be low. Security can be perceived along many dimension, chief among which are two: job security, which refers to a particular job or employer; and second, labour market security, which is a comprehensive concept and goes beyond a particular job or employer and is supported by labour and social policies (Cazes and Verick, 2010; Auer and Cazes, 2003). Generally speaking a more stringent employment protection does not lead to increased security, quite the contrary. Empirical analysis of data on well-being (measured by life satisfaction data available from World Gallup Poll) and EPL corroborates these earlier studies. In fact, there is a weak negative correlation between EPL stringency and life satisfaction, and this holds for both developed and emerging economies.

On the contrary, higher collective bargaining coverage is generally associated with higher mean value for life satisfaction (Figure 13). While there are notable exceptions to this rule – for e.g. New Zealand with the CB ratio of 17 and the mean life satisfaction index of 7.4 and the US with the CB ratio of 13.7 and the mean life satisfaction index of 7.3 – the relationship is positive across all income groups. There are no previous studies that have looked at the relationship between life satisfaction and collective bargaining so it is difficult to identify any kind of causal links between the two variables. However, collective bargaining coverage rate could be capturing the existence of democratic institutions in a country, which is generally linked with higher life satisfaction. Collective bargaining after all refers to negotiation between employer and workers that determine employment relationship – it is a fundamentally democratic institution.

Figure 13: Relationship between life satisfaction and collective bargaining



Note: The date refers to 40 countries, including emerging economies for 2008. Source: ILS based on World Gallup Poll and ILO Dialogue & ICTWSS.

4. Policy considerations

As this paper has shown, while there have been very few cases of significant overhauls in employment protection legislations (EPL), there have been several marginal but important changes which are likely to have an enormous impact on labour market and macroeconomic outcomes for years to come. Furthermore, there has been a general trend towards decentralization (both organized and disorganized), and also collective bargaining coverage has been reduced. Meanwhile, all these changes rarely have been launched by taking into account a more comprehensive understanding of employment security. In fact, employment security is not only related to legislation governing dismissals and contract types, but it is also related to collective bargaining, unemployment insurance, active labour market policies (training and intermediation services), minimum wages, health and safety occupation standards etc. In other words, the interplay between all these institutional features plays a key role in either enhancing or hindering job security intended by EPL and collective agreements.

Employment protection for better labour market outcomes

First, labour market regulation did not cause the financial and economic crisis of 2008-09; among the main culprits, some include: lack of adequate financial regulation and oversight, loose monetary policy, and unbridled risk-taking in the financial sector. Despite this piece of economic history, there seems to be a consensus among policy circles that labour market regulation ought to be relaxed to reduce unemployment and spur job creation. In case of the EU, since both the monetary and fiscal policies now are effectively under the purview of the European Commission, countries in the region have a smaller set of policy choices, including labour market regulation, to tackle the elevated unemployment rates. But deregulation of the labour market is very unlikely to have the desired outcome. Indeed, as this paper has shown, the evidence on the link between employment protection legislation (EPL) and labour market outcomes is presumably far from linear. If anything, up to an average stringency of EPL, there is a not large but positive association between EPL stringency and employment. Similar is the story with macroeconomic outcome measured by gross fixed capital formation in the private sector. There is a need to strike the right balance between employment protection and ability to respond to the crisis, but the slippery-slope on the path of deregulation is not the answer to high unemployment.

Tackling labour market duality

As this paper has shown, the gap between the stringency of EPL for regular and temporary contracts is non-linearly linked with labour market duality (high share of temporary employment out of total employment). The classic argument goes that ‘higher the gap, higher the duality’ but this does not always hold. In fact, the positive relationship between the size of the gap and labour market duality occurs only at the extremes, whereas most countries are in the middle, where the gap has almost no effect on the temporary employment rate. There are several other country specific factors driving dualism, particularly the lack of efficiency in judicial procedures, a distorted or strategic use of dismissals and temporary contract regulation, and the role played by collective bargaining (especially promoting or hindering internal flexibility in firms). Indeed, there are structural problems, particularly in Southern Europe, regarding declining (or stagnant) productivity and competitiveness that have played a more important role in making duality more persistent. In fact, any EPL reform trying to address labour market duality should imply adjustments of other key labour market institutions – such as unemployment benefits, wage setting institutions, etc. – as closing the gap between EPL for regular and permanent workers will not be sufficient. Ultimately, it will be important to design the right institutional setting which will enhance the transitions from fixed-term contract to permanent ones, reducing labour market duality and its negative effects of workers’ wellbeing and aggregate productivity.

Better industrial relations for a more equitable growth

Another victim to the financial and economic crisis has been collective bargaining. In particular, because of the crisis, the long-term trend towards decentralization and fragmentation has further accelerated. As it is the case with EPL, collective bargaining mechanism did not cause the financial and economic crisis. In fact, their existence is indicative of democratic traditions prevalent in a country, and they represent a potentially powerful tool for achieving policy coordination across the economy. As the empirical evidence in this paper shows, ‘fragmented’ collective bargaining is related with lower employment levels, and beyond this lowest level of coordination there is a U-shaped relationship between coordination over wage bargaining and employment rate.

Moreover, ‘coordinated’ collective bargaining can have a positive impact on employment rates at the aggregate level. This refers to company-level bargaining within the framework of rules and standards set by (inter) sectoral agreements. On the other hand, moving toward full coordination has a clear rationale for achieving higher employment rates. In addition, when an economy is affected by a generalized shock (as the global financial crisis, for example) centralized or fully coordinated collective bargaining can be a useful tool, as all firms will have to face similar set of problems. Therefore, the indiscriminate trend towards decentralization is questionable and not likely to yield desired employment objectives.

Harnessing the complementarities between labour legislation and collective bargaining

Generally speaking, during the recent period of deregulation and decentralization, there has been no serious attempt to consider how different aspects of employment security should be addressed, either through EPL or collective bargaining. There are significant complementarities (i.e. linkages) between the two and it is important to consider them together for better outcomes, both in terms of security and employment growth. In particular, responding to business cycle fluctuations by significantly altering legislation is usually very costly as it affects firms’ long-term objectives and also workers’ welfare. Employment security ought to be related to basic rights and conditions that do not fluctuate with the business cycle, and this of course is a matter of national political choice. Collective bargaining plays an important complementary role during macroeconomic shocks by adapting the level of protection to the economic constraints while ensuring that the basic rights and conditions are met.

Appendix: Empirical methodology

This appendix provides the background to the empirical analysis used in Section III of this paper. First, it is important to note that the attempt here is not to provide a causal impact of EPL stringency and collective bargaining on different dependent variables used in the analysis (such as, employment rate, investment rate, social well-being). The regressions are used to understand how EPL and collective bargaining are associated with these broader measures of employment and macroeconomic performance.

Table A1 provides the list of countries included for the empirical analysis (note that for Section I, a broader selection of countries are used as it relies largely on qualitative data). In terms of estimation, the paper employs fixed effects model, where fixed effects correspond to countries. According to the standard specification with country specific effects, the relationship between labour market performance and labour market institutions can be written as (Lazear, 1990; Addison and Teixeira, 2003; Bassanini and Duval, 2006):

$$y_{it} = \alpha_t + \beta_i + \sum_j X_{ijt} b_j + e_{it}$$

Where y denotes the labour market outcome (employment rate), X is the set of explanatory and control variables, and α and β are time and country specific fixed effects. All regressions are shown in Table A2. For the purpose of the paper, regressions were run on the dependent variables employing several different specifications; Table A2 show the simplest fixed-effects models. The results were generally robust and the model allowed for non linearity for both EPL and wage bargaining indicators. For regressions using dummies for wage bargaining coordination, the results were similar.

Table A1: Summary of variables used in the analysis

Variable	Definition	No of countries	Years*	Source
Employment rate	Share of employment with respect to the population	43	1980-2010	LFS or other comparable surveys
Temporary employment rate	Proportion of temporary employment with respect to total employment	43	1980-2010	LFS or other comparable surveys
EPL	This is the synthetic indicator provided by the OECD on EPL strictness. The rank goes from 0 to 6, where 0 means the least strict EPL and 6 the strictest one.	43	1985-2008	OECD
Wage coordination of collective bargaining	Collective bargaining systems according to the coordination: ranges from 1 to 5, where 1 means fragmented bargaining mostly at company level, and 5 means economy wide.	43	1980-2010	ICTWSS
Investment	Private sector gross fixed capital formation as a share of GDP	146	1980-2009	UN national accounts
Social Well Being	Aggregate subjective variable provided by the Gallup World Poll	194	2006-2011	Gallup World Poll

*Not all years are available for all countries, depends on the variables.

Table A2: Fixed-effects regressions*

Variable	Employment Rate			Temp Emp. Rate		Investment Rate	
EPL	-0.0170	0.3110				15.5150	16.5134
EPL ²			-0.1189			-5.8905	-6.4328
EPL ³			0.0134			0.7394	0.8274
WageCoord	0.1377						
WageCoord ²	-0.0495						
WateCoord ³	0.0054						
EPLdif				0.0060	-0.0054		
EPLdif ²				0.0035			
EPLdif ³				0.0022			
Constant	0.6258	0.3734	0.4722	0.0965	0.0938	6.0420	5.2334
σ _u	0.1053	0.1249	0.1003	0.0477	0.0483	3.2179	3.1661
σ _e	0.0271	0.0254	0.0277	0.0219	0.0212	1.9388	1.9532
ρ	0.9378	0.9604	0.9290	0.8257	0.8380	0.7337	0.7243
N observ.	554	554	731	439	439	452	494
n groups	34	34	37	30	30	23	29

*Note: All coefficients are statistically significant at conventional levels.

References

- Acharya, V.V., Baghai-QWadji, R. and Susbramanian, K. 2009. "Labor Laws and Innovation", Discussion Paper No. 7171, CEPR, London, UK.
- Addison, J. T. and Teixeira, P. 2003. "What have we Learned About the Employment Effects of Severance Pay? Further Iterations of Lazear et al.", IZA Discussion Paper No. 943.
- Addison, J.T. and Teixeira, P. 2003. "The Economics of Employment Protection," *Journal of Labor Research*, Vol. 24, No. 1, pp. 85-129.
- Aleksynska, M. and Schindler, M. 2011. "Labor Market Regulations in Low-, Middle- and High-Income Countries: A New Panel Database", IMF Working Papers 11/154.
- Allard, G.J. and Lindert, P.H. 2007. "Euro-Productivity and Euro-Jobs since the 1960s: Which Institutions Really Mattered?", in T.J. Hatton, K.H. O'Rourke and A.M. Taylor (Eds.), *The New Comparative Economic History: Essays in Honor of Jeffrey G. Williamson*, Cambridge, MA, US and London, UK, MIT Press.
- Amuedo-Dorantes, C. and Malo, M.A. 2008. "How are fixed-term contracts used by firms? An analysis using gross job and worker flows", in *Research in Labor Economics*, Vol. 28, pp. 277-304.
- Baccaro, L. and Rei, D. 2007. "Institutional Determinants of Unemployment in OECD Countries: Does the Deregulatory View Hold Water", in *International Organization*, Vol. 61, pp. 527-69.
- Bassanini, A. and Duval, R. (2006). "The determinants of unemployment across OECD countries", *OECD Economic Studies*, Vol. 42, No. 1, pp. 7-86.
- Bassanini, A., Garnero, A., Marianna, P., Martin, S. 2010. "Institutional determinants of worker flows: A cross-country/cross-industry approach", OECD Social, employment and migration paper No. 107
- Belot, M., Boone, J. and Van Ours, J. 2007. "Welfare-Improving Employment Protection," *Economica*, Vol. 74, No. 295, pp. 381-396.
- Berg, J. and Cazes, S. 2008. "Policymaking Gone Awry: The Labor Market Regulations of the Doing Business Indicators" in *Comparative labor law and policy journal*, Vol. 29, No. 4, pp. 349-381.
- Bertola, G., Boeri, T. and Cazes, S. 2000. "Employment Protection in Industrialized Countries: The Case for New Indicators", in *International Labour Review*, Vol. 139, No. 1, pp. 57-72.
- Blanchard, O. and Galí, J. 2010. "Labor Markets and Monetary Policy: A New Keynesian Model with Unemployment", in *American Economic Journal: Macroeconomics*, Vol. 2, No. 2, pp. 1-30.
- Blanchard, O. and Wolfers, J. 2000. "The Role of Shocks and Institutions in the Rise of European Unemployment: The Aggregate Evidence", in *Economic Journal*, Vol. 110, C1-C33.
- Böckerman, P. 2004. "Perception of Job Instability in Europe", in *Social Indicators Research*, Vol. 67, No. 3, pp. 283-314.
- Boeri, T. and Garibaldi, P. (2007). "Two Tier Reforms of Employment Protection: a Honeymoon Effect?" *Economic Journal*, 117(521), 357-385.

- Botero, J.C., Djankov, S., La Porta, R., Lopez-de-Sinanes, F. and Shleifer, A. 2004. "The Regulation of Labor", in *Quarterly Journal of Economics*, Vol. 119, pp. 1339-82.
- Bruno, M., and Sachs, J. D. 1985. *Economics of worldwide stagflation*, Cambridge, MA: Harvard University Press.
- Bryson, A., Cappellari, L. and Lucifora, C. 2005. "Why So Unhappy? The Effects of Unionization on Job Satisfaction", IZA Discussion Paper No. 1498.
- Caballeero, R.J., Cowan, K.N., Engel, E.M.R.A. and Micco, A. 2004. "Effective Labor Regulation and Microeconomic Flexibility", Working Paper 10744, NBER, Cambridge, MA, US.
- Calmors, L., and Driffill, J. 1988. "Centralization and wage bargaining", in *Economic Policy*, Vol. 3, No. 1, pp. 13-61.
- Cazes, N. and Nesporova, A. 2007. "Labour Markets in Central and South-Eastern Europe: From Transition to Stabilization", in S. Cazes and A. Nesporova (Eds.) *Flexicurity: A Relevant Approach in Central and Eastern Europe*, Geneva, Switzerland, ILO.
- Cazes, S. and Tonin, M. 2010. "Employment Protection Legislation and Job Stability: An European Cross Country Analysis", in *International Labour Review*, Vol. 149, No. 3, pp. 261-285.
- Clark, A. and Postel-Vinay, F. 2009. "Job security and job protection," in *Oxford Economic Papers*, Vol. 61, No. 2, pp. 207-239.
- Driffill, J. 2006. "The Centralization of Wage Bargaining Revisited: What Have we Learnt?" *Journal of Common Market Studies*, Vol. 44, No. 4, pp. 731-756.
- Eichhorst, W., Escudero, V., Marx, P. and Tobin, S. 2010. "The Impact of the Crisis on Employment and the Role of Labour Market Institutions", International Institute for Labour Studies Discussion Paper No. 202.
- Feldmann, H. 2003. "Labor Market Regulation and Labor Market Performance: Evidence Based on Surveys among Senior Business Executives", in *Kylos*, Vol. 56, pp. 509-539.
- Feldmann, H. 2009. "The Unemployment Effects of Labor Regulation around the World" in *Journal of Comparative Economics*, Vol. 37, pp. 76-90.
- García-Serrano, C. 1998. "Worker Turnover and Job Reallocation: The Role of Fixed-Term Contracts", in *Oxford Economic Papers*, Vol. 50, No. 4, pp. 709-25.
- García-Serrano, C. 2008. "Job satisfaction, union membership and collective bargaining", in *European Journal of Industrial Relations*, Vol. 15, No. 1, pp. 91-111.
- Garibaldi, P. and Violante, G.L. 2005. "The Employment Effects of Severance Payments with Wage Rigidities", in *Economic Journal*, Vol. 115, pp. 799-832.
- Glassner, V. and Keune, M. 2010. "Negotiating the crisis? Collective bargaining in Europe during the economic downturn", DIALOGUE working paper 10, International Labour Organization, Geneva.
- Glassner, V., Keune, M. J. and Marginson, P. 2011. "Collective Bargaining in a Time of Crisis: Developments in the private sector in Europe", in *Transfer European Review of Labour and Research*, Vol. 17, No. 3, pp. 303-322.

- Golden, M.A. and Londregan, J.B. 2006. "Centralization of bargaining and wage inequality: A correction of Wallerstein", in *American Journal of Political Science*, Vol. 50, No. 1, pp. 208-213.
- Gómez-Salvador, R.J.M. and Vallanti, G. 2004. "Gross Job Flows and Institutions in Europe", in *Labour Economics*, Vol. 11, pp. 469-85.
- Griffith, R., Harrison, R. and Macartney, G. 2007. "Product Market Reforms, Labour Market Institutions and Unemployment", in *Economic Journal*, Vol. 117, C142-C166.
- Haltiwanger, J., Scarpetta, S. and Schweiger, H. 2006. "Assessing Job Flows across Countries: The Role of Industry, Firm Size and Regulations, IZA Discussion Paper No. 2450.
- Hayter, S. (ed.) 2011. *The Role of Collective Bargaining in the Global Economy. Negotiating for Social Justice*. Cheltenham, UK: Edward Elgar Publishing – International Labour Organization.
- Hayter, S. and Weiberg, B. 2011. "Mind the gap: collective bargaining and wage inequality", chapter 6 in Hayter (2011), pp. 136-186.
- Heckman, J.J. and Pagés-Serra, C. 2000. "The Cost of Job Security Regulation: Evidence from Latin American Labor Markets", in *Economía*, Vol. 1, pp. 109-44.
- Iversen, T. 1998. "Wage Bargaining, Central Bank Independence and the Real Effects of Money", in *International Organization*, Vol. 52.
- Kahn, L.M. 1998. "Against the wind: bargaining recentralisation and wage inequality in Norway 1987-1991", in *Economica*, Vol. 65, No. 260, pp. 507-534.
- Keune, M. 2010. "Derogation clauses on wages in sectoral collective agreements in seven European countries", Eurofound.
- Lazear, E. 1990. "Job Security Provisions and Employment", in *Quarterly Journal of Economics*, Vol. 105, pp. 699-726.
- Messina, J. and Vallanti, G. 2007. "Job Flow Dynamics and Firing Restrictions: Evidence from Europe", in *Economic Journal*, Vol. 117, F279-F301.
- Muller, A. 2011. "Employment protection legislation tested by the economic crisis. A global review of the regulation of collective dismissals for economic reasons", ILO DIALOGUE in Brief No. 3.
- Nickell, S. 1997. "Unemployment and Labor Market Rigidities: Europe versus North America", in *Journal of Economic Perspectives*, Vol. 11, No. 3, pp. 55-74.
- OECD 2004. "Employment Outlook", OECD, Paris, France.
- Pages, C. and Micco, A. 2008. "The Economic Effects of Employment Protection: Evidence from International Industry-Level Data", IDB Working Paper No. 495.
- Pissarides, C. 2001. "Employment Protection", in *Labour Economics*, Vol. 8, No. 2, pp. 131-159.
- Pissarides, C. 2010. "Why Do Firms Offer 'Employment Protection'?", in *Economica*, Vol. 77, No. 308, pp. 613-636.

- Skedinger, P. (2010). *Employment Protection Legislation. Evolution, Effects, Winners and Losers*. Edward Elgar.
- Skedinger, P. (2011) “Employment Consequences of Employment Protection Legislation”, IFN Working Paper No. 865, Research Institute of Industrial Economics
- Traxler, Franz (1994). “Collective Bargaining: Levels and Coverage”. Chapter in OECD, *Employment Outlook*, 1994: 167-94.
- Venn, D. 2009. “Legislation, collective bargaining and enforcement: Updating the OECD employment protection indicators”, Working paper 89, Directorate for Employment, Labour and Social Affairs, OECD.
- Wallerstein, M. 1999. “Wage-setting institutions and pay inequality in advanced industrial societies”, *American Journal of Political Science*, 43(3), 649-680.