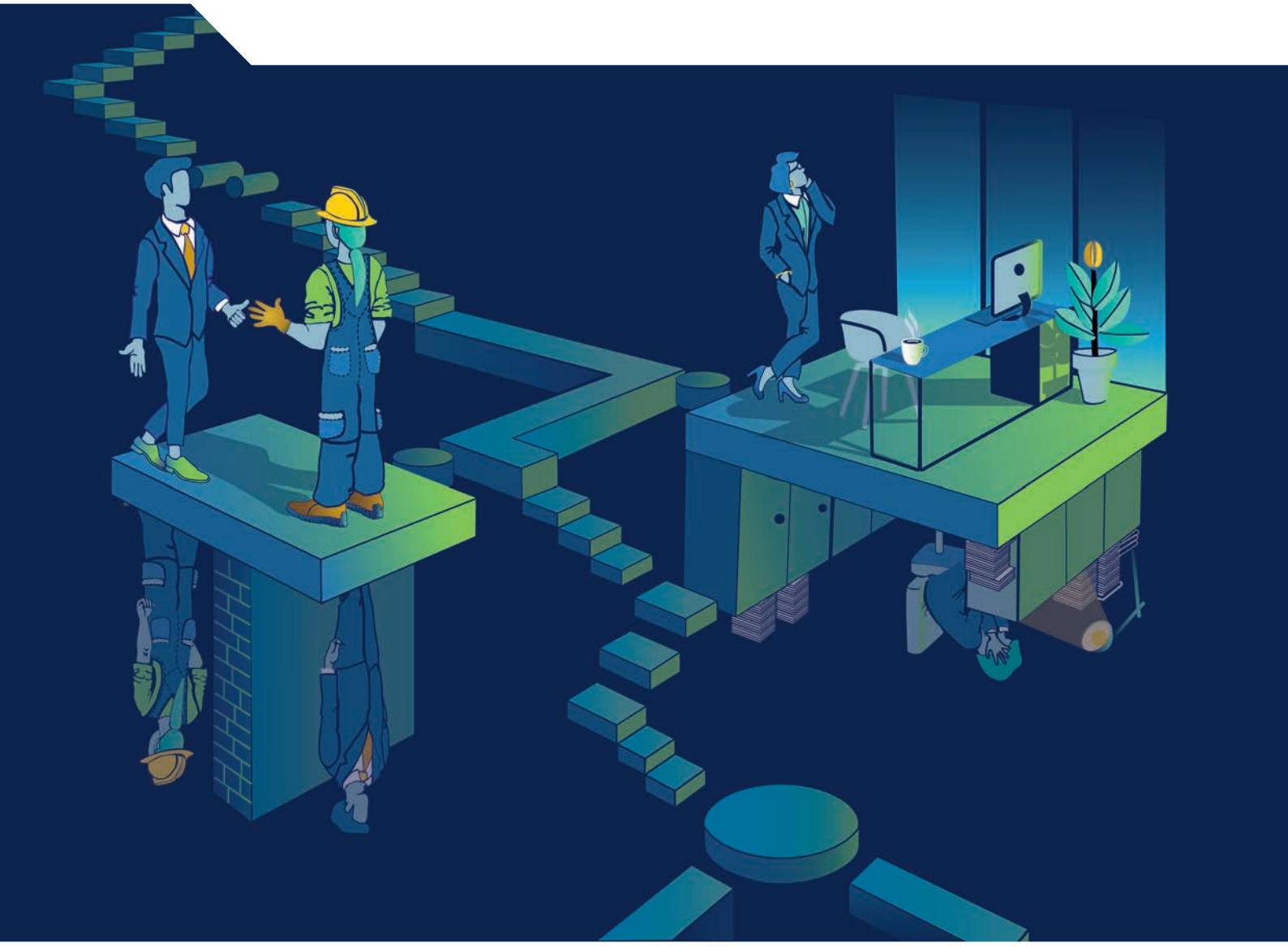
Negotiating Our Way Up

COLLECTIVE BARGAINING IN A CHANGING WORLD OF WORK



OECD

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Foreword

Negotiating Our Way Up provides a comprehensive assessment of the functioning of collective bargaining and workers' voice in OECD countries as well as new insights on their effect on labour market performance and their role in a changing world of work. Combining a large variety of sources and data, the report analyses the challenges that collective bargaining systems are facing in OECD countries, as well as their role to promote more inclusive labour markets. Collective bargaining is a key institution to promote rights at work. At the same time, collective bargaining and workers' voice are unique instruments to reach balanced and tailored solutions to the challenges facing OECD labour markets. However, fruitful exchanges between social partners are not a given and collective bargaining systems need to be designed in ways that allow balancing inclusiveness and flexibility. *Negotiating Our Way Up* provides a useful resource for policy makers, trade unions and employers' organisations interested in understanding how to make the most of these instruments.

The report consists of three main thematic parts. After an overview of the report's main messages in Chapter 1, the first part of the report provides a detailed review of the key actors and functioning of collective bargaining institutions and workers' voice arrangements across OECD countries. The second part, analyses the role of collective bargaining systems for employment, job quality and labour market inclusiveness. It notably steps into relatively unchartered territory, namely the relationship between collective bargaining, workers' voice and the non-monetary aspect of job quality, such as the quality of the working environment. Finally, the last part of the report discusses how collective bargaining can be adapted to address emerging challenges such as those related to automation, globalisation and ageing. It identifies the type of government intervention that may be required to support this adaptation, including by ensuring that the increasing share of non-standard workers can access collective voice and bargaining.

Negotiating Our Way Up builds on the work done on collective bargaining by the OECD Directorate for Employment, Labour and Social Affairs since 2016. Chapters 2, 3 and 5 build on the *OECD Employment Outlook 2017*, the *OECD Employment Outlook 2018* and the *OECD Employment Outlook 2019.* The report was edited and drafted by Sandrine Cazes, Andrea Garnero, Sébastien Martin and Chloé Touzet under the supervision of Stefano Scarpetta, Mark Pearson and Stéphane Carcillo. Alexander Hijzen and Oliver Denk contributed to Chapter 3. Andrea Bassanini provided helpful comments and suggestions. Editorial assistance was provided by Natalie Corry and Duniya Dedeyn.

This report was produced with the financial assistance of the German Ministry of Labour and Social Affairs. It could not have been prepared without the co-operation of the Labour and Employment Ministry staff in OECD and accession countries, as well as of the staff of many national employer associations and unions who completed the OECD policy questionnaires on collective bargaining. The report has also greatly benefited from helpful discussions and suggestions from the participants at several meetings of the OECD Employment, Labour and Social Affairs Committee, the OECD Working Party on Employment, the Business at OECD ELSA Committee, the Trade Union Advisory Committee (TUAC) to the OECD Working Group on Economic Policy and on Education and Skills as well as at three OECD expert meetings on collective bargaining. In particular, Professor Jelle Visser's wisdom, knowledge and friendly support all along the work have been an enormous help.

The views expressed herein cannot be taken to reflect the official opinion of the OECD member countries nor of any of the people, organisations and governments that helped the Secretariat during the research and drafting process.

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Acronyms and abbreviations

ISO code	Country label	ISO code	Country label
AUS	Australia	AUT	Austria
BEL	Belgium	CAN	Canada
CHL	Chile	CZE	Czech Republic
DNK	Denmark	EST	Estonia
FIN	Finland	FRA	France
DEU	Germany	GRC	Greece
HUN	Hungary	ISL	Iceland
IRL	Ireland	ISR	Israel
ITA	Italy	JPN	Japan
KOR	Korea	LVA	Latvia
LTU	Lithuania	LUX	Luxembourg
MEX	Mexico	NLD	Netherlands
NZL	New Zealand	NOR	Norway
POL	Poland	PRT	Portugal
SVK	Slovak Republic	SVN	Slovenia
ESP	Spain	SWE	Sweden
CHE	Switzerland	TUR	Turkey
GBR	United Kingdom	USA	United States

AES	Australian Election Study
CASEN	Encuesta de Caracterizacion Socioeconomica Nacional
CAWIE	Collectively agreed wages in Europe
COE	Characteristics of Employment survey
CPS	Current Population Survey
CPS-MORG	Current Population Survey Merged Outgoing Rotation Group
CVTS	Continuing Vocational Training Survey
EAPS	Economically Active Population Survey
ECB	European Central Bank
ECS	European Company Survey
EEBTUM	Employee Earnings, Benefits and Trade Union Membership
EEH	Employee, Earnings and Hours survey
ENIGH	Encuesta Nacional de Ingresos y Gastos de los Hogares
ENOE	Encuesta Nacional de Ocupación y Empleo
EPL	Employment protection legislation
ESS	European Social Survey
EU-KLEMS	EU-level analysis of capital, labour, energy, materials and service inputs data
EU-LFS	European Union Labour Force Survey
EWCS	European Working Conditions Survey
FWLB	Finnish Working Life Barometer

GEIH	Gran encuesta integrada de hogares
GSOEP	German Socio Economic Panel
HILDA	Household, Income and Labour Dynamics in Australia
IAB	Institut für Arbeitsmarkt- und Berufsforschung
ICTWSS	Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts Database
ILO	International Labour Organization
IMF	International Monetary Fund
ISCO	International Standard Classification of Occupations
ISSP	International Social Survey Programme
JMP	Juhn-Murphy-Pierce
KLIPS	Korean Labor and Income Panel Study
LFS	Labour Force Survey
NAICS	North American Industry Classification System
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Squares
PEC	Pacts for employment and competitiveness
PIAAC	Programme for the International Assessment of Adult Competencies
PISA	Programme for International Student Assessment
QNHS	Quarterly National Household Survey
REPONSE	Enquête Relations professionnelles et Négociations d'entreprise
SES	European Union Structure of Earnings Survey
SMEs	Small and medium-sized enterprises
SOC	Standard Occupational Classification
SRCV	Enquête statistique sur les ressources et conditions de vie
STAN	OECD Structural Analysis Database
WERS	Workplace Employment Relations Study
WSI	Wirtschafts- und Sozialwissenschaftliches Institut
WVS	World Value Survey

Executive summary

Collective bargaining systems are key and complex labour market institutions

In all OECD countries, workers and employers associate to express their interests and concerns, as well as to bargain over the terms and conditions of employment. However, over the last decades, the share of workers who are trade union members and the reach of collective agreements even beyond union membership have significantly declined. Despite these trends, collective bargaining, together with workers' voice, continues to play a key role in the labour market in many OECD countries. Collective bargaining systems are generally based on a complex set of rules and practices, partly written in national laws and partly based on longstanding traditions. In order to understand their functioning and role, it is necessary to look at their different building blocks, and their interactions. These include: The actual level of bargaining (i.e. the level at which bargaining takes place, firm vs. sectoral level, and the margins firms have to derogate or to opt out from higher-level agreements); the degree of co-ordination across sectors and bargaining units; the effective enforcement of collective agreements, and the overall quality of labour relations.

Co-ordination in wage bargaining is a key ingredient for good labour market performance

Wage co-ordination across sectors and bargaining units is a particularly important dimension of collective bargaining. Bargaining systems characterised by a high degree of wage co-ordination across bargaining units are associated with higher employment and lower unemployment for all workers, compared to fully decentralised systems. This is because co-ordination helps the social partners to account for the business-cycle situation and the macroeconomic effects of wage agreements on competitiveness. The actual level of centralisation is another crucial dimension: Organised decentralised and co-ordinated systems (i.e. systems where sector-level agreements set broad framework conditions but leave detailed provisions to firm-level negotiations and where co-ordination is rather strong) tend to deliver good employment performance and higher productivity. By contrast, the lack of flexibility at firm level, which characterises centralised bargaining systems, may come at the expenses of lower productivity growth. At the individual level, there is a wage premium for employees who are covered by firm-level bargaining compared with those not covered or those covered only by sectoral bargaining while wage dispersion is on average smallest among workers who are covered by sector-level bargaining compared with systems based on firm-level bargaining only.

Collective bargaining systems and workers' voice arrangements also matter for job quality

This publication also explores the link between collective bargaining systems, workers' voice arrangements, and the non-monetary aspects of job quality. In particular, it analyses social partners'

engagement in occupational safety and health, working time, training and re-skilling policies, management practices, and the prevention of workplace intimidation and discrimination. The quality of the working environment is higher on average in countries with well-organised social partners and a large coverage of collective agreements. At firm level, both "direct" and "mixed" forms of voice (where workers' representatives coexist with direct dialogue between workers and managers) are associated with a higher quality working environment (compared with the absence of voice). By contrast, the presence of workers' representatives in firms where there are no parallel means of direct exchange between workers and managers is not associated with a better quality working environment. These correlations are not evidence of a causal relationship. They might reflect the fact that employers and managers who create channels of direct dialogue with their employees are also more likely to engage in improving the quality of the working environment. By contrast, the presence of solely representative arrangements for voice could be characteristic of poor social dialogue contexts, where employers are unwilling to engage in direct exchanges with workers.

Collective bargaining and workers' voice play an important role in preventing inequalities in a changing world of work, but they need to adapt

As innovation, globalisation and population ageing transform the world of work, collective bargaining, when it is based on mutual trust between social partners, can provide a means to reach balanced and tailored solutions to issues of common concerns. It can ensure that all workers and companies benefit from the current transformations. It can help formulate solutions to emerging issues (e.g. the use of technological tools, or work-life balance), and complement public policies in skills needs anticipation, or support to displaced workers. However, collective bargaining faces old challenges (such as declining collective bargaining coverage and falling union density) as well as new ones, such as the increasing prevalence of workers in non-standard employment (i.e. temporary part-time and self-employment) who might not have access to collective bargaining. In this context, governments might need to intervene to keep bargaining systems fit for purpose. Fighting misclassification is of particular importance. However, a significant number of workers may still fall in a "grey zone" between the definitions of employee and self-employed, where genuine ambiguity exists about their employment status. Regulations might need to be adapted to extend collective bargaining rights to those workers, who share vulnerabilities with salaried employees, and to some self-employed workers in unbalanced power relationships.

Making the most of collective bargaining and workers' voice to address old and new labour market challenges

This publication argues that, despite undeniable difficulties, collective bargaining and workers' voice remain important and flexible instruments that should be mobilised to help workers and companies face the transition and ensure an inclusive and prosperous future of work. The need for co-ordination and negotiation mechanisms between employers and workers is heightened in the changing world of work. Whether considering key issues such as wage inequality, job quality, workplace adaptation to the use of new technologies, or support for workers displaced by shifts in industries, collective bargaining and workers' voice can complement public policies to produce tailored and balanced solutions. The alternatives to collective bargaining are often either state regulation or no bargaining at all, since individual bargaining is not always a realistic option as many employees are not in a situation to effectively negotiate their terms of employment with their employer. *Negotiating Our Way Up* provides a resource for policy makers, trade unions and employers' organisations interested in understanding how collective bargaining and workers' voice can be used to complement public regulation in shaping evolving labour markets.

1 Overview: Collective bargaining and workers' voice can be strong enablers of inclusive labour markets

Sandrine Cazes, Andrea Garnero and Chloé Touzet

Collective bargaining and workers' voice are key labour rights and important labour markets institutions that matter for job quality. Collective bargaining, providing that it has a wide coverage and is well co-ordinated, fosters good labour market performance. Collective bargaining and workers' voice have however been under increasing pressure over the past decades, as trade union density and collective bargaining coverage declined, non-standard forms of work developed, and employment relationships became more individualised. Despite these challenges, collective bargaining and workers' voice still have a role to play in preventing inequalities in a changing world of work. To this end, collective bargaining systems need to be adapted to better balance flexibility and inclusiveness.

Collective bargaining and workers' voice are key labour rights, but also enablers of inclusive labour market. Yet, their capacity to deliver is being increasingly questioned by the general weakening of labour relations in many countries, the flourishing of new − often precarious – forms of employment and a tendency towards the individualisation of employment relationships. At the same time, the labour market is in a flux. The digital transformation, together with globalisation and demographic changes are re-shaping it, offering new job opportunities but also creating challenges for many workers to navigate these deep and rapid changes. In this context, how can collective bargaining and workers' voice contribute to promote better labour market outcomes, including for those in new forms of employment and business?

Since the 1980s, collective bargaining systems have been under increasing pressure. Trade union density (the share of workers who are union members) has declined across OECD countries losing more than half of its reach from 33% on average in 1975 to 16% in 2018. This long-standing decline is observed in a large majority of countries, although union density increased in two countries, Iceland and Belgium, and was relatively stable in Canada, Korea and Norway. Similarly, the share of workers covered by a collective agreement shrank to 32% on average in the OECD area in 2017 from 45% in 1985. The drivers of the decline in union density are numerous and vary between countries and over time. Contrary to a commonly held belief, the combined contributions of demographic changes and structural shifts, such as the shrinking of the manufacturing sector, are small and leave most of this declining trend unexplained. However, while there is no single storyline of union density decline across OECD countries, the weakening of social partners poses the common risk for all countries: that they find themselves without relevant and representative institutions to overcome collective action problems and strike a balance between the interests of workers and firms in the labour market.

The risk is all the more serious given that the conflicts and aspirations that collective bargaining and workers' voice were first developed to address may deepen in the future. Providing that institutions are well designed, collective bargaining systems can help employers and unions find mutually beneficial solutions and establish a level-playing field for all companies and workers. However, fruitful exchanges between social partners are not a given and collective bargaining systems need to strike a balance between inclusiveness and flexibility. Without underestimating the challenges ahead, this report argues that collective bargaining can and should be mobilised to address issues emerging in the changing world of work; in fact, these changes also offer social partners opportunities to revitalise collective representation and actions.

1.1. How do collective bargaining systems and workers' voice arrangements function in OECD countries?

In OECD countries, 82 million workers were members of trade unions in 2018 and about 160 million were covered by collective agreements concluded at national, regional, sectoral, occupational or firm level. Trade union *density* varies considerably between OECD countries, ranging from 4.7% in Estonia to 91% in Iceland in 2018. The latest data available show that, on average, 59% of workers in OECD countries were employed in a firm that was a member of an employer organisation and this share has been relatively stable over the past 15 years. Medium-sized and large firms are more likely to be represented by employers' organisations than small firms in most countries. Collective bargaining *coverage* is generally high and stable in countries with multi-employer bargaining (i.e. where agreements are signed at sectoral or national level), where the share of firms that are members of an employer association is high, or where mechanisms exist to extend coverage to employees beyond those working for firms that are members of a signatory employer association. In countries where collective agreements are signed mainly at firm level, coverage is lower and goes hand-in-hand with trade union density. Workers in small firms are less likely to be covered as these firms often do not have the capacity to negotiate a firm-level agreement, often because there is no worker representation in the workplace.

Beyond these general patterns, Chapter 2 of this report shows that it is essential to examine the complex machinery of national bargaining systems in detail and account for their diversity across countries. Notably, it considers four main building blocks of collective bargaining systems: i) the level of bargaining at which agreements are negotiated (e.g. firm, sector or national level); ii) the flexibility to derogate or opt-out from parts of higher-level agreements; iii) the degree of co-ordination between social partners; and iv) the capacity of social partners to enforce collective agreements and the quality of labour relations in OECD countries.

In two-thirds of OECD countries, collective bargaining takes place predominantly at firm level. Sectoral agreements play a significant role in continental European countries. Beyond the so-called "predominant" level of bargaining, countries differ in the degree of centralisation or decentralisation of their bargaining system, i.e. the scope for firm-level negotiations to modify the terms set out in higher-level agreements.

Collective bargaining systems also differ greatly in the degree of co-ordination between bargaining units – essentially the extent to which common (wage) targets are pursued and/or minor players follow what major players decide. Co-ordination is strong, at least in certain sectors, in Austria, Denmark, Germany, the Netherlands, Norway, Sweden and Japan but tends to be weak (or absent) in other OECD countries.

The quality of labour relations as assessed by senior executives and the degree of trust in trade unions by people aged 15 or more vary across OECD countries. Managers consider labour relations most co-operative in Switzerland and least co-operative in Korea. At the same time, 40% of persons aged 15 or more declare that they trust trade unions across OECD countries, from 65% in Finland and Denmark to 25% in the United States, Slovenia and Mexico. Interestingly, there is no clear link between these findings and any specific bargaining model nor do they show any clear trend over the past 10-15 years. The number of workdays lost due to strikes and lockouts has decreased markedly since the 1990s in most OECD and accession countries.

Beyond collective bargaining, OECD countries also vary in terms of workers' voice arrangements at workplace or company level. "Voice", in this context, corresponds to the various institutionalised forms of communication between workers and managers to address collective problems. Voice also provides employees with an opportunity to solve issues emerging in the workplace through communication with management. Voice is often mediated through representative institutions, such as local trade union representatives, works councils or workers representatives, or it can materialises at the workplace through the organisation of direct exchanges between workers and managers (e.g. via regular town hall meetings and/or direct consultations). A key difference between "direct" and "representative" forms of voice is the legal protections and rights attached to the status of workers' representatives, notably the protection against retaliation and firing, and information and consultation rights. Therefore, direct and representative forms of voice are not substitutes. In European countries, "mixed" forms of voice, combining both representation and direct dialogue are the most prevalent. The proportion of workers covered by mixed-voice systems is higher in well-coordinated multi-level bargaining systems.

1.2. What role does collective bargaining play in labour market performance?

Most of the early empirical work looking at the effect of collective bargaining on labour market and economic performance is based almost exclusively on summary-level indicators such as the predominant level of bargaining and the degree of wage co-ordination. However, these analyses do not capture the complexity and diversity of bargaining systems described in Chapter 2. For instance, while wages are typically negotiated at sectoral level in Denmark, Germany, France, Portugal or Italy, there are large differences across these countries in the use of extensions, derogations and opt-out clauses as well as in co-ordination practices that all contribute to significantly different labour market outcomes.

Using the best micro- and sector-level data available and a new categorisation of collective bargaining systems based on the analysis in Chapter 2, Chapter 3 analyses the link between bargaining systems and employment, wages and productivity. At the individual level, the chapter shows the presence of a wage premium for employees who are covered by firm-level bargaining compared with those not covered or those covered only by sectoral bargaining. By contrast, wage inequality is higher in countries with firm-level bargaining only or no collective bargaining, compared with countries where workers are covered by sectoral bargaining.

At country level, the chapter highlights the key role of wage co-ordination as a tool to help the social partners account for the business-cycle situation and the macroeconomic effects of wage agreements on competitiveness. Co-ordinated bargaining systems are linked with higher employment and lower unemployment (including for young people, women and low-skilled workers) than systems where bargaining happens only at firm level. Systems where bargaining takes place predominantly at sectoral level and where there is no co-ordination are somewhat in between. In countries where wage co-ordination is strong and stable, it tends to be supported by employers' associations, since it contributes to moderate wage growth, but also by trade unions, since it ensures high levels of employment.

Chapter 3 also shows that bargaining systems that leave little scope for firms to tailor the conditions set in higher-level agreements tend to be associated with lower productivity growth, if coverage of agreements is high. This result suggests that the lack of flexibility at firm level, which characterises centralised bargaining systems, may come at the expense of lower productivity growth. By contrast, strong wage co-ordination notably in the form of pattern bargaining (where the target for wage negotiation is set by one leading exposed sector, and followed by others) in systems that are not centralised does not have such adverse effect on productivity.

While many OECD countries have taken steps towards decentralisation in the past two decades, Chapter 3 shows that the best outcomes in terms of employment, productivity and wages seem to be reached when sectoral agreements set broad framework conditions but leave detailed provisions to firm-level negotiations. However, other forms of decentralisation that simply replace sectoral with firm-level bargaining, without co-ordination within and across sectors, tend to be associated with somewhat poorer labour market outcomes.

Therefore, the main challenge for social partners and governments is to adjust collective bargaining systems to achieve better outcomes in terms of employment, job quality and inclusiveness, while leaving scope for firms to adapt agreements to their own situations. The exact nature of this challenge and the way it is addressed will differ from country to country and depend to an important extent on existing national collective bargaining traditions. Chapter 3 provides a thorough discussion of the options available as well as their strengths and weaknesses.

1.3. How can collective bargaining and workers' voice contribute to improve job quality?

The link between collective bargaining and wages has been widely investigated. By contrast, the relationship between, workers' voice arrangements and the non-monetary aspects of job quality have not been thoroughly investigated, largely because of lack of comparable data on these aspects of job quality. This is an important issue, not only for workers and for unions, but also for employers since poor quality jobs may result in increased labour turnover, absenteeism, more health problems, and lower productivity.

Beyond negotiations on wages, social partners are involved in many other areas that matter for job quality. By providing support, guidance and access to up- and re-skilling for workers who lose their jobs in the event of restructuring and mass-layoffs, they can improve workers' labour market security (the risk of job loss and its economic cost for workers). Chapter 4 explores how collective bargaining systems and the

variety of existing workers' voice arrangements shape one key pillar of job quality, namely the quality of the working environment.

Data limitations prevent the empirical assessment of country-level relationships between the quality of the working environment and collective bargaining systems beyond a simple descriptive analysis. Measures of the quality of the working environment developed following the OECD *Job Quality Framework* are on average higher in countries with well-organised social partners and a large coverage of collective agreements – where the number of job resources available to workers (e.g. autonomy at work, training and working time flexibility), in particular, is higher.

Limitations apply to the empirical assessment of the effect of workers' voice arrangements on job quality at the firm level. The direction of causality between the two is hard to discern from a theoretical perspective. Indeed, if the presence of workers' voice arrangements can theoretically increase job quality, strained workers with poor working conditions might also self-select into unions. Unions themselves might self-select into firms where working conditions lag behind and can be improved through union action.

Bearing these caveats in mind, Chapter 4 shows that both direct and "mixed" forms of voice (where workers' representatives coexist with direct dialogue between workers and managers) are associated with a higher quality of the working environment (compared with the absence of voice). By contrast, the presence of workers' representatives in firms where there are no parallel means of direct exchange between workers and managers is not associated with a better quality of the working environment. Similar correlations are found when focusing on measures related to occupational safety and health, working time or management practices. These correlations cannot be taken as evidence of causal link between workers' voice arrangements and non-monetary job quality. The positive association between mixed voice and quality of the working environment might reflect the fact that employers and managers who create channels of direct dialogue with their employees are also more likely to engage in improving the quality of the working environment. By contrast, the presence of solely representative arrangements for voice could be characteristic of poor social dialogue contexts, where employers are unwilling to engage in direct exchanges with workers, but are either mandated by law to have representative institutions, or facing strained workers seeking representation to express their discontents, while benefiting from the legal protections attached to representative voice.

The chapter also presents qualitative evidence on trade unions' and employers' involvement in five dimensions of the quality of the working environment: occupational safety and health, working time, training, work organisation and management practices, and the prevention of intimidation and discrimination. The implementation of high standards of safety and health provisions, as well as training or work organisation and management practices, remains more challenging in small and medium-sized enterprises. The chapter includes examples of how social partners and policy makers in OECD countries have tried extending best practices to all types of firms, which could inspire similar initiatives in other contexts.

1.4. How can collective bargaining systems be adapted to remain fit for purpose in a changing world of work?

In addition to the long-standing decline of trade union density mentioned above, the growing prevalence of various forms of non-standard employment (i.e. temporary , part-time and self-employment) in a number of countries poses a new challenge to collective bargaining, as non-standard workers (i.e. workers without a permanent contract) are less likely to be unionised than standard workers. This is the case even when controlling for composition effects (linked to gender, age, education, industry, occupation, firm size and part-time vs. full-time employment).

This under-representation partly reflects the practical difficulties of organising non-standard workers (who might be more fearful of retaliation when joining a union or have limited attachment to a particular workplace because of frequent job moves), as well as the fact that collective bargaining has historically developed around standard employees. It also results from legal obstacles to collective bargaining for some non-standard workers such as the self-employed. While labour law gives all salaried employees – whether in a standard or non-standard relationship – an undisputed legal right to collective bargaining, extending this to workers usually classified as self-employed may be seen as infringing competition law, and in particular anti-cartel legislation. Yet the share of self-employed (often own-account) workers who might thus be barred from accessing collective bargaining, has substantially increased in a number of OECD countries in recent years (OECD, 2018[1]).

These practical and legal barriers to collective bargaining pose a serious problem since collective bargaining is a particularly useful tool to address the challenges arising from mega-trends that are transforming labour markets – digitalisation, globalisation and population ageing. Collective bargaining can indeed ensure that all workers and companies, including small and medium-sized enterprises, reap the benefits of technological innovation, organisational changes and globalisation, in a context of increased competition and fragmentation of production. It can help formulate solutions to emerging issues, such as the use of technological tools, or work-life balance. And it can complement public policies in enhancing labour market security and adaptability, particularly through social partners' role in the anticipation of skills needs or support to workers who lose their jobs.

Therefore, collective bargaining systems can help smooth the transition to an increasingly complex labour market. But making the most of collective bargaining in the future world of work will require some governmental intervention, notably to lift the legal barriers to collective bargaining. As the incidence of false self-employment is rising (OECD, 2019[2]), enforcing the correct classification of workers is of particular importance to ensure that workers benefit from the protection and rights to which they are entitled. A significant number of workers may still fall in a "grey zone" between the usual definitions of employee and self-employed, where genuine ambiguity exists about their employment status. For those workers, who share vulnerabilities with salaried employees, and for some self-employed workers in unbalanced power relationships, it may be necessary to adapt existing regulations in order to extend collective bargaining rights to them. In fact, several OECD countries have already sought to grant collective bargaining rights to some of these workers through specific adjustments to labour law or explicit exemptions to laws prohibiting cartels.

Beyond government actions, there are many examples showing that social partners can − and actually do − adjust, develop new strategies and reshape existing institutions, to adapt to changing labour markets. For instance, some unions have reacted to the rising prevalence of non-standard forms of employment by adapting their own structures, changing their legal status to allow self-employed workers to join, or setting up dedicated branches for non-standard workers. They have diversified their strategies, e.g. by engaging in corporate campaigns for recognition in certain companies or the legal battle against workers' misclassification. And collective bargaining has actually taken root in some sectors with a high prevalence of non-standard work, such as the cultural and creative industries.

New vehicles for representing workers' interests have developed in some OECD countries, such as Worker Centers or the Freelancers Union in the United States, or workers' co-operatives in some European countries. Yet while these forms of workers' organisations can improve links and communications between non-standard workers, they cannot replace unions. In particular, they do not have the legal mandate to bargain collectively on behalf of their members or the ability to deliver on negotiated agreements. Therefore, they can complement unions rather than be a substitute to them, and co-operation between traditional and new forms of workers' organisation is now emerging in some contexts.

Employers' organisations are also being tested by changes in the world of work. They have an interest in ensuring a level-playing field for their members in the face of new competitors, such as digital platforms,

which often circumvent existing labour regulations by claiming that they are matchmakers rather than employers. Yet a few innovative collective agreements have also recently been signed between unions and companies – including digital platforms – in European OECD countries, although they remain very limited. Platforms have also taken some initiatives to allow workers to express their concerns, to pre-empt the introduction of new legislation on the way they operate.

Chapter 5 highlights several policy directions that can help policy makers to support the efforts of social partners to expand their membership and to ensure that collective bargaining can be fully mobilised to face the challenges emerging in the future world of work. These notably include enforcing the correct classification of workers and reviewing labour market and competition policies to allow access to collective bargaining for some self-employed workers.

1.5. Making the most of collective bargaining and workers' voice to address old and new challenges: The road ahead

Despite undeniable difficulties, this report argues that, if well designed and implemented, collective bargaining and workers' voice remain important instruments to deal with both old and new challenges in the labour market. The need for co-ordination and negotiation mechanisms between employers and workers has, if anything, increased in the changing world of work.

The past few decades have shown that in many cases, the alternatives to collective bargaining are often either state regulation or no bargaining at all, since individual bargaining is not always a realistic option as many employees are not in a situation to effectively negotiate their terms of employment with their employer. Whether considering issues of wage distribution, job quality, workplace adaptation to the use of new technologies, or support for workers who lose their jobs following shifts in industries, collective bargaining and workers' voice arrangements remain unique tools enabling governments and social partners to find tailored and fair solutions. To make the most of this tool, state regulations need to leave space for collective bargaining, and local representative structures and promote (or not at least not discourage) self-organisation by workers and employers. The latter is a precondition for an inclusive and flexible labour market.

However, to maintain the effectiveness of collective bargaining, national systems need to be adapted to the new challenges and the right balance has to be found between inclusiveness and flexibility for stakeholders to adapt rules and regulations to their specific conditions. An important question is what role governments can and should play in shaping the evolution of collective bargaining systems. Experience shows that even apparently well-crafted reforms of collective bargaining may be partially or totally ineffective if they fail to change practices on the ground and the overall bargaining culture. Or, they may sometimes lead to major and often unintended shifts in bargaining behaviour (e.g. a total blockage of collective bargaining), even if the initial intention was only to change specific elements of the system. The issue of how to design and implement collective bargaining reforms in particular contexts and to ensure that workers, unions and employers adhere to the reforms, thus guaranteeing their effectiveness, should be a major focus for future work. This report aims to lay the groundwork for this task.

References

OECD (2019), *OECD Employment Outlook 2019: The Future of Work*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9ee00155-en. [2]

OECD (2018), *Good Jobs for All in a Changing World Of Work: The OECD Jobs Strategy*, OECD Publishing, Paris, https://doi.org/10.1787/9789264308817-en. [1]

2 Collective bargaining systems and workers' voice arrangements in OECD countries

Sandrine Cazes, Andrea Garnero, Sébastien Martin and Chloé Touzet

This chapter provides a comprehensive and up-to-date review of collective bargaining systems and workers' voice arrangements across OECD countries. Despite the fall in trade union density and collective bargaining coverage in the last 40 years, collective bargaining remains a key labour market institution. Yet, the understanding of this key institution is limited by the fact that collective bargaining systems are often described with crude indicators and oversimplified in the literature. This chapter describes in more details the features of collective bargaining systems that are particularly important for labour market outcomes.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

In Brief

Key Findings

Across OECD countries, workers and employers can associate to express their interests and concerns, as well as to bargain over the terms and conditions of employment. However, in the last decades, this process of collective representation and negotiation has been tested by a series of challenges. Policy reforms have modified the scope and functioning of collective bargaining systems. At the same time, the coverage of collective bargaining, and the number of workers who are members of trade unions have fallen.

When not simply overlooked, the role of collective bargaining as a labour market institution is often based on crude indicators of trade union density. Building on a rich set of survey and administrative data, going back to the 1960s, this chapter sheds new light on collective bargaining systems currently in place in OECD countries, taking into account their diversity, their complexity and their internal institutional complementarities. In particular, this chapter shows that:

- In 2018, about 82 million workers were members of trade unions in OECD countries, and about 160 million were covered by collective agreements concluded either at the national, regional, sectoral, occupational or firm level. Trade union density, the proportion of employees who are union members, varies considerably across OECD countries, ranging from 4.7% in Estonia to 91% in Iceland in 2018.
- On average, 16% of employees were members of trade unions in 2018, down from 33% in 1975. While this decline characterises a majority of countries, union density has been relatively stable since the mid-1970s in Canada, Korea and Norway, and has increased in Iceland and Belgium.
- Decomposition analyses reveal that trade union density decline is a multi-faceted phenomenon that varies across countries and time: there is no single story of union density decline across OECD countries. Future research on the issue should focus on country-specific analyses.
- In particular, contrary to a commonly held belief, the contribution to union density decline of demographic transformations affecting the composition of the workforce, and of changes affecting the labour demand (such as the shrinking of the manufacturing sector) is small. It leaves the bigger part of the observed decline unexplained. Neither is union density decline linked to a declining propensity to unionise with passing generations in most countries studied.
- The latest data available for OECD countries show that, on average, 59% of workers were employed in a firm that is member of an employer organisation and this share has been relatively stable over the last 15 years. Medium and large firms tend to be better represented by employer organisations than small firms, while sectoral coverage varies significantly across countries.
- Declining union density has been accompanied by a reduction of the share of workers covered by a collective agreement, which has shrunk to 32% in 2017 from 46% in 1985 on average in OECD countries. The decline was strongest in Central and Eastern European countries, with steep decreases also observed in Australia, New Zealand and the United Kingdom, and, more recently, in Greece. Coverage has been relatively stable in most continental European countries, except for Germany where it has decreased significantly since reunification in 1990.
- Overall, collective bargaining coverage is high and stable only in countries where multi-employer agreements (i.e. at sectoral or national level) are negotiated and where the share of firms that

are members of an employer association is high, or where agreements are extended also to workers working in firms which are not members of a signatory employer association. In countries where collective agreements are signed mainly at firm level, coverage tends to go hand-in-hand with trade union density. Workers in small firms are generally less likely to be covered, as these firms often do not have the capacity to negotiate a firm-level agreement, or a union or another form of worker representation is absent in the workplace.

Using detailed information collected through OECD policy questionnaires addressed to Labour Ministries and social partners, the chapter provides a detailed picture of collective bargaining systems by unpacking their different building blocks. In particular, the chapter shows that:

- In two-thirds of OECD countries, collective bargaining takes place predominantly at firm level. Sectoral agreements play a significant role only in continental European countries. However, this does not tell the whole story about the actual degree of centralisation or decentralisation as countries differ greatly in terms of the flexibility for firm-level agreements to modify the terms set out in higher-level agreements. In some contexts (particularly Scandinavian countries), sectoral agreements define the broad framework but leave considerable scope for bargaining at the firm level. In other countries (such as Germany and Austria and more recently Spain), sectoral agreements dominate but they leave room for firm-level agreements to apply less favourable terms for employees, either in a generalised way or only temporarily in case of a crisis. In a third group of countries (including Italy, Slovenia and, despite the 2012 reform, Portugal), firm-level bargaining remains limited and in most cases strictly regulated by higher-level agreements.
- Collective bargaining systems across OECD countries also differ greatly in the degree of co-ordination between bargaining units – essentially the extent to which common (wage) targets are pursued and/or minor players follow what major players decide. Co-ordination is a key factor behind macro flexibility (i.e. the ability of the economy to adjust to macroeconomic shocks) and is strong, at least in certain sectors, in Austria, Denmark, Germany, the Netherlands, Norway and Sweden, and also in Japan.
- Workers' voice is often mediated through representative institutions – such as local trade union representatives, works councils, and/or workers' delegates – whose prerogatives range from information, to consultation and co-determination in some contexts. At company level, employees' and/or trade unions' can also be present in supervisory and management boards. Beyond representation, voice also materialises in practice through the organisation of direct exchanges between workers and managers (e.g. via regular town hall meetings and/or direct consultations). The two forms of voice, however, are not substitutes, notably because the legal protections and rights attached to the status of workers' representatives are absent in direct voice. In European countries, mixed forms of voice, combining both representation and direct dialogue are the most prevalent. The proportion of workers with access to mixed-voice systems higher in well-co-ordinated bargaining systems.
- There is significant variation across countries in the overall quality of labour relations as assessed by senior executives and the trust in trade unions among the population at large. These factors are not apparently linked to any specific model of bargaining nor do they show any clear trend over the last 10-15 years. In most OECD countries, the number of workdays lost due to strikes and lockouts has decreased markedly since the 1990s.

There are no comparable and comprehensive indicators on the level of enforcement of collective agreements across countries. However, where estimates are available, compliance with negotiated wage floors is shown to be far from perfect.

Introduction

About 82 million workers are members of trade unions in OECD countries, and about 160 million[1] are covered by collective agreements concluded either at the national, regional, sectoral, occupational or firm[2] level. In all OECD countries, workers and employers associate to express their interests and concerns and to negotiate the terms and conditions of employment. This process of collective representation, negotiation and decision-making is a key labour market institution and, together with the "right to organise", is a "fundamental principle and right at work" set by the ILO Convention No. 98 and a key pillar of social dialogue[3] at national level.

In the last four decades, collective bargaining systems have weakened. The long-standing decline in union membership rates and increasing individualisation of employment relationships combined with policy reforms fostering the decentralisation of collective bargaining, have severely tested existing collective bargaining systems. Yet as traditional institutions of labour relations are under increasing pressure, the need for mechanisms to overcome conflicts and reach a balance between the interests of workers and employers' will not fade away. Individual bargaining is not a realistic alternative to collective bargaining as only few employees can effectively negotiate their terms of employment with their employer. Rather, in the absence of functioning collective bargaining, countries are faced with a choice between no negotiation mechanisms at all (which could be particularly problematic in situations where some employers have monopsony power) and state regulation (which might not always allow reaching the best compromise between a diversity of interest).

Even though these general patterns have been widely noted, there is a lack of detailed, comprehensive and comparable information on the evolving nature and scope of collective bargaining in OECD countries. For example, reliable and up-to-date information on the membership of unions and employer organisations and collective bargaining coverage across countries and sectors is limited. Up-to-date and systematic analyses of the drivers of trade union density decline across OECD countries are also missing.

Moreover, standard cross-country analyses of collective bargaining and the summary indicators they typically rely on often do not provide as precise an indication of the actual functioning of collective bargaining as would be desirable. Most of the early empirical work on collective bargaining has been conducted at the macroeconomic level, with an almost exclusive focus on the predominant level of bargaining and the degree of co-ordination. For example, the policy assessment and recommendations of the original and reassessed OECD Jobs Strategy (1994 and 2006, respectively) largely focused on the degree of centralisation of wage bargaining and co-ordination among unions and employer association. The Jobs Strategy suggested that both centralisation and decentralisation could perform well, while a system dominated by sectoral bargaining lacking co-ordination may deliver worse results, as previously had been argued by Calmfors and Driffill (1988[1]).

However, the evidence of recent decades demonstrates the need for a more nuanced picture of how institutional settings in collective bargaining affect labour market and economic outcomes. Indeed, formally similar systems can lead to very different outcomes, depending on the specific ways the system works in practice. For instance, in Denmark, Germany, France, Portugal or Italy, wages are typically negotiated at the sectoral level, but the large differences in the rules and uses of extensions, derogations and opt-out clauses and co-ordination practices lead to significant differences in labour market outcomes, but also in the level of trust in the national collective bargaining system and its functioning.

Therefore, this chapter sheds new light on collective bargaining by providing an updated and comprehensive review of the main features of collective bargaining going beyond the usual indicators, while also documenting recent trends and exploring their causes. The analysis relies on the detailed information collected through the OECD policy questionnaires that were addressed to Labour Ministries, trade unions and employer organisations (see Box 2.1 for more information) and on a rich set of survey and administrative data. The more finely grained description of collective bargaining that emerges will

enable better analyses of how collective bargaining affects labour market performance. The chapter is organised as follows: Section 2.1 introduces the main functions and building blocks of collective bargaining systems in place in OECD countries. Section 2.2 presents a detailed and up-to-date portrait of the actors and the scope of bargaining systems. In particular, it provides comparable estimates of trade union density and employer organisation density by country, but also by sector, firms' and workers' characteristics. Section 2.3 looks into the drivers of trade union density decline across OECD countries. Section 2.4 provides comparable estimates of collective bargaining coverage by country. It discusses the application of agreements beyond the signatory parties through *erga omnes* clauses and administrative extensions as well as those regulating the duration of collective agreements. Section 2.5 unpacks collective bargaining systems into their various components. It considers the degree of centralisation, the mechanisms linking different bargaining levels and the use of derogations and opt-out clauses. The different modes and degree of bargaining co-ordination found in OECD countries are also explored together with the actual enforcement of agreements and the quality of labour relations. Section 2.6 describes the types of workers' voice arrangements that are present at firm level. Section 2.7 provides a summary comparison of the different national collective bargaining systems in OECD countries. It intends to provide a detailed portrait of the system as a whole, rather than just as the sum of its parts. Finally, the last section concludes by discussing the main challenges ahead for collective bargaining systems.

2.1. The functions and features of collective bargaining systems

2.1.1. The functions of collective bargaining

From the perspective of workers, collective bargaining aims at ensuring a fair sharing of the benefits of training, technology and productive growth (inclusive function), at maintaining social peace (conflict management function), and at guaranteeing adequate conditions of employment (protective function).[4]

Indeed, while often considered mainly as a wage setting institution, collective bargaining also plays an important role for setting other conditions of employment such as job security, working-time regulation, occupational safety and health, provision or access to training (Chapter 4 explores in more details the effect of collective bargaining on these non-monetary aspects). Unions and employer organisations also provide important services to their members such as legal support or public advocacy.

Collective bargaining can also have an impact on wage dispersion and income inequalities (e.g. by affecting employment but also through its influence on management pay at firm level and the tax and benefit system at country level), unemployment levels and competitiveness as well as the way labour market responds to unexpected shocks (see Chapter 3).

Finally, collective bargaining can improve the quality of the employment relationship between workers and firms. It can be a useful tool for self-regulation between workers and employers and bring more stable labour relations and industrial peace, leading to a more efficient allocation of resources, greater motivation and ultimately productivity.

Beyond ensuring those functions for workers, collective bargaining is also a key tool of market control, i.e. reining in wage competition between companies or, on the opposite, limiting the monopsony power of firms which in some cases may profit from a lack of bargaining power of workers. It can increase incentives for companies to invest in innovation, if the presence of a bargaining setting prevents the option of increasing profits by simply reducing wages.

Collective bargaining can also help correcting market failures (such as asymmetry of information and of bargaining power between workers and employers, possibly reflecting monopsony and other labour market frictions). It reduces transactions costs involved in individual bargaining. It can ensure that workers'

requests for pay to increase with productivity are heard therefore preventing excessive turnover of staff, and limiting the extent of costly procedures for handling grievances and complaints.

By contrast, economic theory argues that collective bargaining can introduce market distortions (e.g. "rent seeking behaviour") by strengthening the power of *insiders* – both workers (e.g. those with full-time permanent contract) and firms (e.g. companies already operating in the market). When it comes to workers, the logic is that unions are less likely to take the interests of outsiders (e.g. less-skilled, temporary or young workers or young/small firms) into account. However, empirical evidence backing this theory is scarce. Research based on the content of collective agreements shows that the extent to which concerns from outsiders are taken into account does not depend on membership composition (Benassi and Vlandas, 2016[2]). Research in Canada showed that union wage premiums are in fact significantly larger for women, Indigenous persons, non-standard workers, young workers, and new immigrants; while union wage premiums have declined in general over the last two decades in Canada, they have grown amongst women, non-standard workers, and young workers (Gomez and Lamb, 2016[3]). Finally, the recourse to non-standard workers (e.g. temporary workers or agency workers) is found to be higher in unionised workplaces in some studies (Salvatori, 2009[4]), but not in others (Gramm and Schnell, 2001[5]; Autor, 2003[6]). Besides, these associations, where observed, do not back the insider/outsider theory insofar as they do not disentangle between the effect of union and management in hiring decisions.

The overall effect of collective bargaining on economic performance largely depends on the specific features of the system of each country, how they interact with other key parameters of labour market institutions, such as employment protection or minimum wage legislation, but also on prevailing macroeconomic and labour market conditions and policies. Chapter 3 explores the effect of collective bargaining on labour market performance in more details.

Finally, social dialogue can constitute an efficient tool to promote effective consultation and implementation of structural reforms. When social dialogue is well organised and representative, it can help manage and reduce the extent of any trade-offs between different policy objectives.

2.1.2. The building blocks of collective bargaining

Collective bargaining systems are generally characterised solely based on the (predominant) level at which collective agreements are negotiated (firm level, sector/branch level and the national/cross-sectoral level), and the degree of co-ordination within and between social partners. This is not sufficient to reflect the granularity of the different systems, especially among those where bargaining predominantly takes place at the sectoral level. Beyond bargaining level and coordination, other building blocks of collective bargaining systems need to be integrated to the analysis. Figure 2.1 sketches these key components of collective bargaining systems, which should be taken into account for a comprehensive comparison of national systems:

First, the representativeness of trade unions and employer organisations, measured as the share of workers (firms) who are members of trade unions (employer organisations), as well as the share of workers covered by collective agreements, are key indicators of the strength of social partners and the scope of the bargaining systems. However, they are not enough on their own: the rules governing the administrative extension of collective agreements beyond the signatory parties, and the frequency with which these extensions are used, are also critical determinants of the coverage of collective agreements.

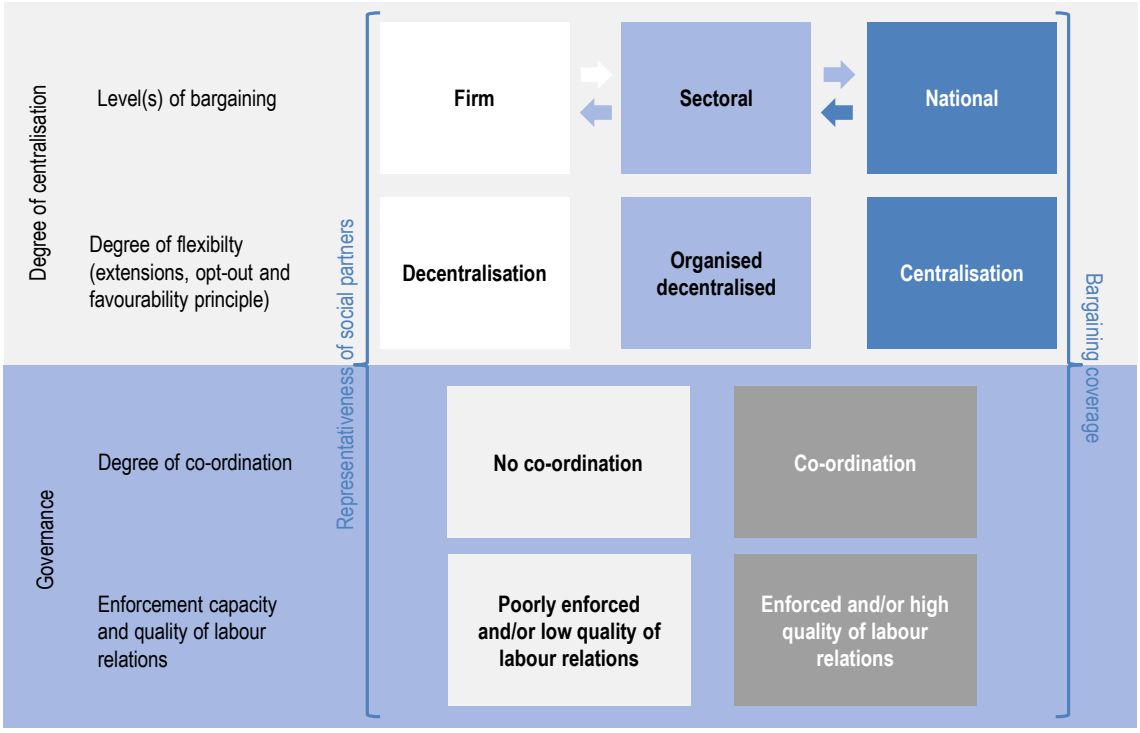
Second, while the predominant level of bargaining (e.g. firm level, sector/branch level or national/cross-sectoral level) defines where parties negotiate, it does not fully capture the actual degree of centralisation or decentralisation. The latter also depends on the rules governing the hierarchy between the different levels, and the possibility for firms to derogate from higher-level agreements or to opt-out of their own agreement in case of economic difficulties. In particular, systems based on sectoral or national/cross-sectoral level bargaining are not necessarily centralised. They can be, if they leave no or

little room to modify the terms of agreements to lower-level agreements; or they can be decentralised but in an organised way when firm-level agreements have a significant role in determining the terms of employment but are subject to specific conditions set either by law or by the social partners themselves.

Third, the presence and degree of different forms of co-ordination within and between social partners is also very important to differentiate between systems producing totally independent and atomised negotiations, and those ensuring some synchronisation of different bargaining units when setting their strategy and targets.

Finally, the quality of labour relations, in particular the level of trust between social partners, as well as the enforcement capacity of the terms set in collective agreements, and the ability of employer organisations and trade unions to control the behaviour of their constituency at lower levels, can make a difference between formally similar systems.

Figure 2.1. The main building blocks of collective bargaining systems



2.2. The actors of collective bargaining

2.2.1. Trade unions

Trade (or labour) unions are voluntary organisations of workers that are present in all OECD countries. Sixteen per cent of employees are members of a union on average across OECD countries. However, trade union density, the proportion of employees who are union members, varies considerably across OECD countries, going from 4.7% in Estonia, to about 65% in Sweden, Denmark and Finland and 91% in Iceland.

Trade union density also varies considerably across workforce groups (Figure 2.2). On average across OECD countries, public administrations workers are those most likely to be unionised (Panel A) but only represent 13% of total union members (Panel B). Those working in the good-producing sector (mining,

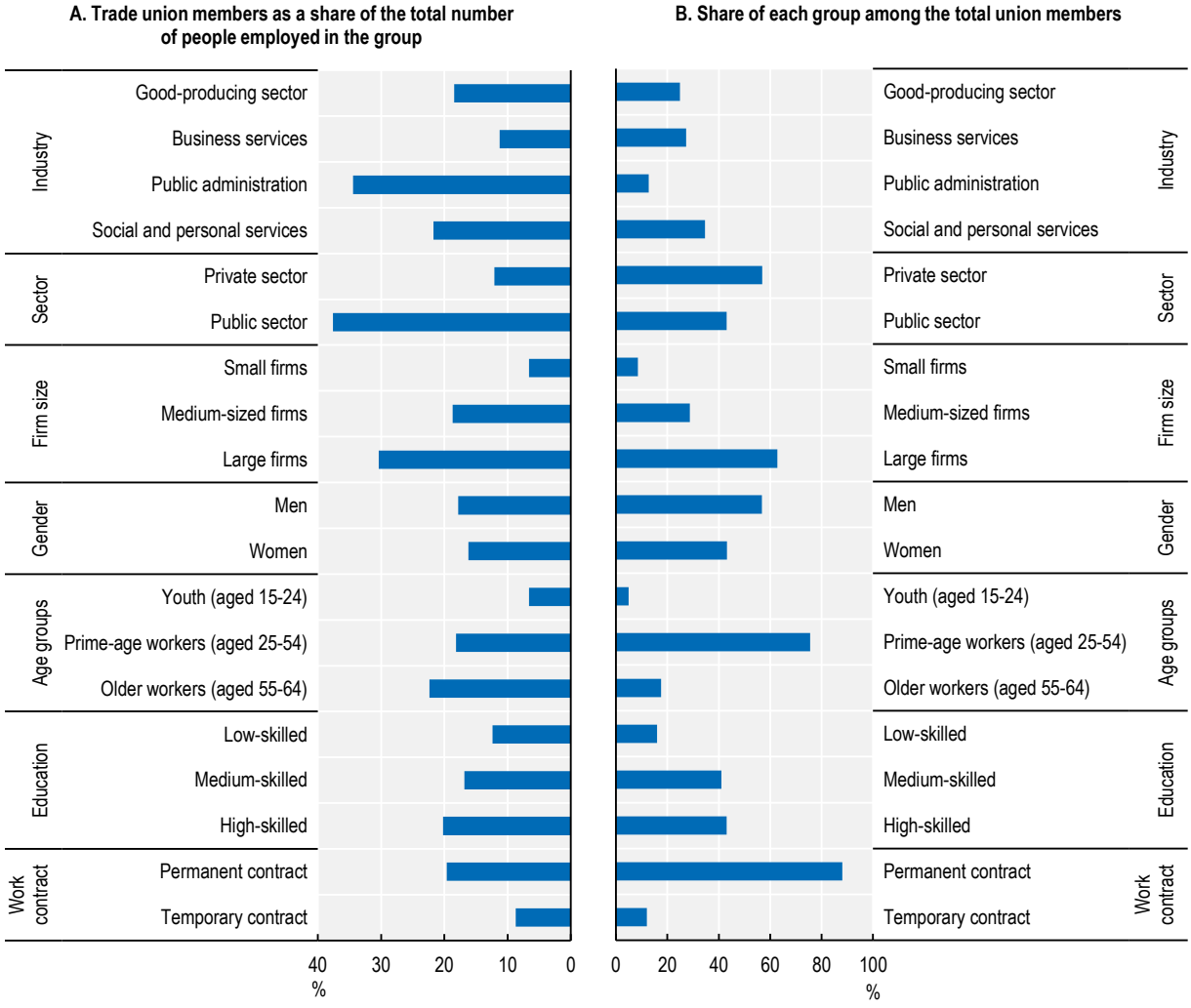
manufacturing, constructions and energy and electricity supply) and in social and personal services (including education and health) respectively represent 25% and 35% of total union members. There are however significant differences in terms of composition across countries: correcting for the various sectors' weight in the economy, employees in the good-producing sector still represent a much higher proportion of union members in Germany and the Netherlands than in Portugal or the United Kingdom – see Annex 4.A1 in OECD (2017[7]).

Box 2.1. The OECD policy questionnaires on collective bargaining

The description of the functioning of collective bargaining systems in OECD countries that is presented in this chapter mainly relies on information provided by the responses to the detailed policy questionnaires that were sent to Labour Ministries, employer organisations and trade unions in 2016 (and partly updated in late 2018). The information reported in the chapter (unless otherwise stated) represents the situation in 2018. The focus is on collective bargaining practices in the private sector. In the case of institutional differences across sectors, the answers focus on what is applicable in the agreement that prevails for the manufacturing sector (in case of differences within the manufacturing sector, for the metal workers). Unless otherwise stated, the information in the chapter refers to the entire economy, even if the actual application and use of certain instruments may differ across sectors. The questionnaire addressed to Labour Ministries focused on: i) the architecture of collective bargaining (e.g. structure of bargaining, hierarchy between levels, wage co-ordination, use of extensions, derogations, duration of agreements, etc.); ii) labour relations at firm level (e.g. presence and role of works councils and of other forms of employee representation bodies in the workplace[5], rules for unions activity at firm level); iii) the topics covered by collective bargaining (e.g. if and where wages, hiring and firing rules, occupational health and safety, working time are set by collective bargaining and if collective agreements also cover training and/or unemployment insurance); iv) collective bargaining and non-standard forms of work (if and how social partners and collective bargaining also cover flexible forms of work); and v) recent changes (if any) in collective bargaining. The questionnaires addressed to social partners were intended to complement the information provided by Labour Ministries and focused on: i) the actors of collective bargaining (e.g. functioning and membership of employer organisations and unions); ii) the topics of collective bargaining (same as for Labour Ministries); iii) the quality of labour relations; iv) collective bargaining and flexible forms of work (same as for Labour Ministries); and v) recent changes in collective bargaining. All OECD countries have filled in the questionnaire. Canada has sent detailed answers for the federal level and the four biggest provinces (Alberta, British Columbia, Ontario and Québec). The information collected via the policy questionnaires has been complemented and cross-checked with existing data sources (in particular using data from ICTWSS, Eurofound, European Commission, ILO and various individual- and firm-level surveys and administrative data) and the relevant research literature and updated in 2019.

Figure 2.2. Trade union density by group

OECD weighted averages, 2013



Note: Trade union density by group presented in this figure has been adjusted for the overall trade union density shown in Figure 2.4 by using the share of each individual group in total union membership and total number of employees. For further details on definition, country covered and data sources, see Annex Figures 4.A1 to 4.A7 in Annex 4.A1 in OECD (2017[7]), "Collective bargaining in a changing world of work" in *OECD Employment Outlook 2017*, https://dx.doi.org/10.1787/empl_outlook-2017-8-en.

Source: Annex Figures 4.A1 to 4.A7 in Annex 4.A1 in OECD (2017[7]), "Collective bargaining in a changing world of work" in *OECD Employment Outlook 2017*, https://dx.doi.org/10.1787/empl_outlook-2017-8-en.

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Only 7% of employees in small firms belong to a union on average across OECD countries, as union members tend to work in large and medium firms. Yet patterns differ across countries: employees in small firms represent a larger share of trade union members in Belgium and Sweden while unions in Japan have no affiliates at all in small firms. Women and men show little difference in terms of their likelihood to be union members when employed (Panel A) but since employment rates are higher for men than women, unions have on average a more masculine membership (Panel B). In 15 OECD countries women outnumber men among union members – see Annex 4.A1 in OECD (2017[7]). Prime age workers constitute the core of trade union affiliates but as a share of the working population, older workers are those more

likely to be union members. Youth only represent 7% of total union members in the OECD area, and are the age group least likely to unionise in all countries (see specific discussion on youth and unions in Chapter 2. Union members tend to be medium or high skilled (around 40% of total union members in each group). Finally, union members in all OECD are overwhelmingly workers with a permanent contract, with only 9% being temporary workers.

2.2.2. Employer and business organisations

Employers, business and employer organisations are the other key actors of collective bargaining. In most OECD countries outside Europe, employer associations represent the interests of business (i.e. lobby and voice) but do not bargain collective agreements, with most – if not all – bargaining taking place at the firm level. However, the role of employer organisations in wage bargaining processes is institutionalised in many European countries.

Compared with union density, much less is known about the membership and representativeness of these organisations across OECD countries. Representativeness, in particular, is very difficult to assess: official and up-to-date statistics on the number of workers covered, as distinct from the number of affiliated firms, are very limited, partial and often based only on self-reported data. Further difficulty in providing a precise assessment arises also from the possibility for firms to belong to several employer associations.

Using available information, Figure 2.3 shows the share of employees in the private sector working in firms affiliated to an employer organisation. On average, employer organisation density in the 25 OECD countries for which data are available is close to 60%. Like trade union density, employer organisation density varies considerably across OECD countries: it is very low in Central and Eastern European countries and Korea, but up to about 80% in the Belgium, Luxembourg, the Netherlands and Sweden (and at 100% in Austria due to compulsory affiliation for all firms).

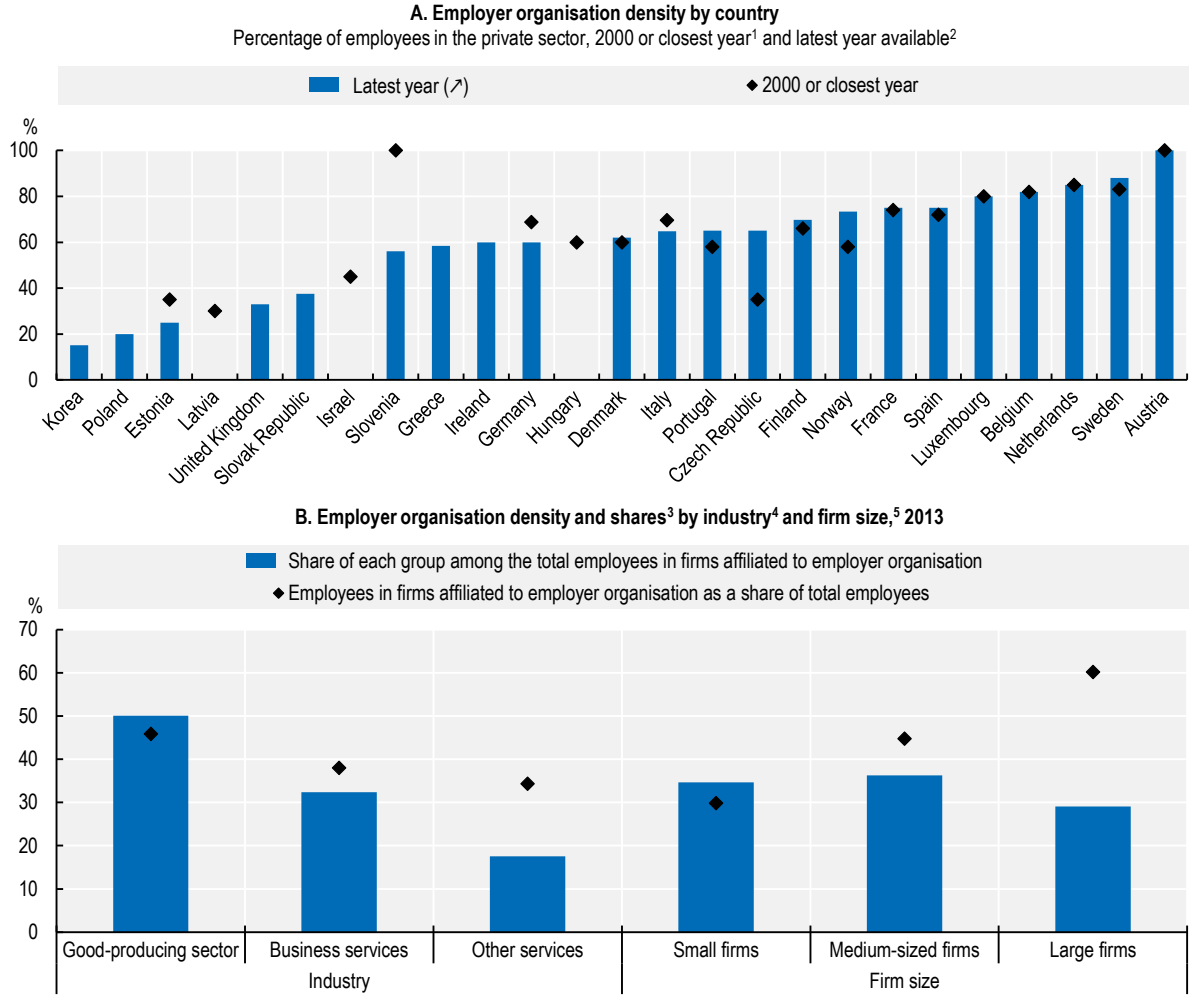
Membership rates and membership composition are not the (only) elements to gauge the influence and legitimacy of unions and employer organisations. In fact, these rates are closely interlinked with collective bargaining system themselves and often reflect long-term historical patterns. However, they are still good proxies to measure the ability of unions and employers to represent a broad base of workers and firms or in contrast, merely a narrow segment of them.

Differences across OECD countries in employer organisation density partly mirror those in trade union density (the correlation between trade union density and employer organisation density is 0.55 – Annex 4.A1 in OECD (2017[7]). In Austria, Finland, Sweden or Belgium both trade union and employer organisations display high rates, while in Central and Eastern European countries, Korea or Turkey both memberships rates are low. However, based on the number of employees covered, Denmark combines one of the highest union densities among OECD countries with an average employer organisation density; and France has a high employer organisation density together with one of the lowest trade union densities among OECD countries.

In most OECD countries, the share of employees working for a firm that is part of an employer organisation is larger in the good-producing sector compared with the service sector. Employer organisations also tend to be more representative of medium and large firms.

Employer organisations density has been quite stable in the last decades. Most countries (at least for those for which time series are available) show a remarkable stability. Brandl and Lehr (2016[8]) argue that employer associations have been able to adapt their organisational structure as well as their activities to the changing needs of business (for instance by offering negotiation training, legal representation, industrial information, health and safety advice, wage surveys and marketing).

Figure 2.3. Employer organisation density



1. 2000 for Austria, Finland, Norway, Slovenia and Sweden; 2002 for Belgium, the Czech Republic, Denmark, Estonia, France, Germany, Italy, Luxembourg, Latvia, Netherlands, Portugal and Spain; 2004 for Hungary; and 2005 for Israel. No data for Greece, Ireland, Korea, Lithuania, Poland, the Slovak Republic and the United Kingdom.
2. 2008 for Greece, Ireland and Portugal; 2009 for Korea; 2012 for Denmark, France and Italy; 2013 for the Netherlands, Slovenia and Spain; 2014 for Belgium, the Czech Republic, Finland, Germany and Luxembourg; 2015 for Estonia and the Slovak Republic; 2016 for Norway, Sweden and the United Kingdom; and 2017 for Austria. No data for Hungary, Israel and Latvia.
3. Statistics refer to establishments of the private sector with ten or more employees in all economic sectors except agriculture, activities of households as employers and activities of extraterritorial organisations. Unweighted average of 24 OECD countries (not including Australia, Canada, Chile, Israel, Japan, Korea, Mexico, New Zealand, Norway, Switzerland and the United States).
4. All sectors reported in Panel B refer to the private sector. Good-producing sector refers to manufacturing (including mining and utilities) and construction; business services refers to commerce and hospitality, transport and communication and financial services and real estate; other services refers to remaining social and personal services excepted activities of households as employers and activities of extraterritorial organisations.
5. "Small firms" refers to firms with fewer than 50 employees; "Medium-sized firms" to firms with 50 to 249 employees; and "Large firms" to firms with 250 employees or more.
Source: **Panel A**: J. Visser, ICTWSS Database version 6.0. Amsterdam: Amsterdam Institute for Advanced Labour Studies (AIAS), University of Amsterdam. June 2019. **Panel B**: OECD estimates based on the third Eurofound European Company Survey (ECS 2013).

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2.3. Why has trade union density been declining in the last decades?

The stability of employer organisations density sharply contrasts with trends in trade union density. Trade union density has been declining in most OECD countries over the last four decades. On average across OECD countries, it went from 33% in 1975, to 16% in 2018 (Figure 2.4).

This average downward trend, however, masks important cross-country variations in terms of initial unionisation levels, the actual direction of trends, and, in countries where it happened, the pace, intensity and timing of the decline.[6] First, trade union density in the mid-1970s varied from around 75% in Sweden, to around 20% in France and just above 10% in Korea. Second, while union density declined in a majority of countries, it increased in Iceland and Belgium and was relatively stable over the last four decades in Canada, Korea and Norway. Third, decline was much faster and more abrupt in some countries than in others. In the 1990s, Eastern European countries[7], Israel, and New Zealand experienced a fall of at least 30% of union density (Turkey in the 2000s is another example) over a relatively short time-span. By contrast, decline was much more gradual (and much smaller) in countries like Denmark, Switzerland or Chile – where it was more akin, in fact, to a progressive erosion than to a drop. Finally, the timing of decline also differs: it starts in the 1980s in several countries, but already in the 1960s in the United States, Austria or the Netherlands, and much later – in the 1990s-in several Nordic countries. Changes in union density accelerated at various points in time over the period, with individual countries exhibiting specific spikes.

This heterogeneity of the evolution of union density across countries suggests that it may be the result of a combination of country-specific factors rather than global forces – although some drivers might be common across countries or groups of countries.

2.3.1. A literature review of the potential drivers of changes in union density

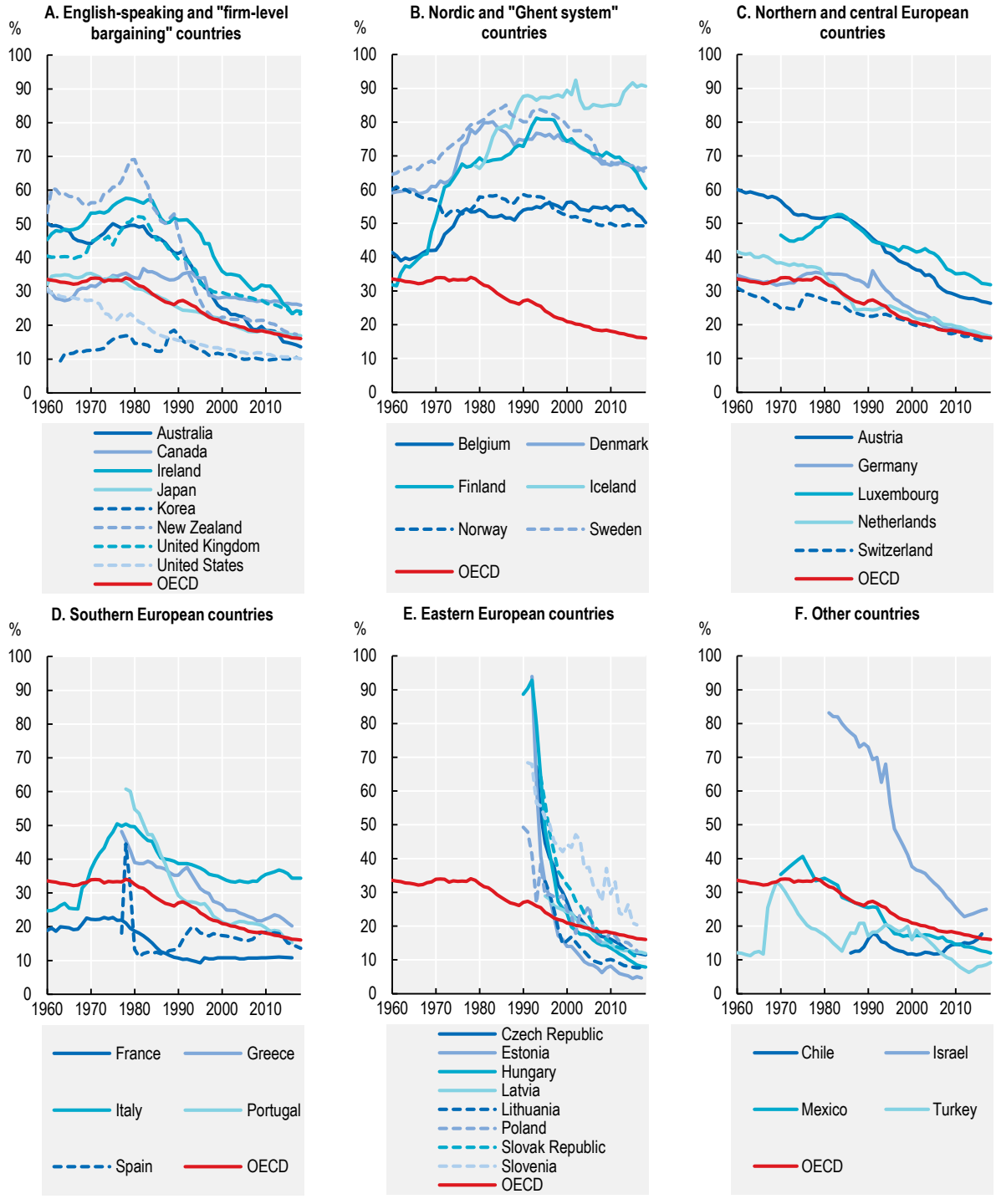
Globalisation, demographic changes in the workforce, de-industrialisation and the shrinking size of the manufacturing sector, the fall of public sector jobs and the spread of flexible forms of contracts are among the most common hypotheses explored in the literature to explain trade union density decline.

The role of economic globalisation and the related increase in competitive pressure faced by firms is frequently mentioned as a driver of union density decline. For instance Vachon and Wallace (2013[9]) argue that global competition reduces unions' bargaining capacity, while dependence on Foreign Direct Investments decreases workers' organising capacity, and immigration affects union density, as non-citizens workers might feel too vulnerable to join them.

Among demographic factors, the increasing participation of women to the labour market used to be considered as a potential driver of decline, as women had lower unionisation rates. Yet, recent empirical studies find that the gender gap in unionisation has closed in many countries, and even reversed in some (Visser, 2006[10]; Schnabel and Wagner, 2007[11]). The rising proportion of workers with a university degree is also discussed as a potential driver of density decline (Morisette, Schellenberg and Johnson, 2005[12]) – but theoretical expectations on this issue in the literature are contrasted. Finally, changes in the age composition of the workforce could also explain the decline in union membership. Blanchflower (2007[13]) argues that the probability of being unionised follows "an inverted U-shaped pattern in age, maximising in the mid-to-late 40s". As shown in Figure 2.5 above, young workers across OECD countries are less unionised than older ones.

Figure 2.4. Trends in union density

Percentage of employees, 1960-2018



Note: OECD is the employee-weighted average of the 36 OECD Member countries.
Source: OECD/ICTWSS database on trade union density.

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This age effect could also hide a *cohort effect*, if younger generations of workers have a systematically lower propensity to unionise than previous generations. This lower propensity to unionise could stem from various factors, including changes in preferences, or changes in the institutional environment of collective bargaining. Workers coming of age and "learning" about the labour market in an environment where unionisation is more constrained, less efficient because unions have less power, or less socially valued, might have a lower propensity to unionise as a result (Bryson and Davies, 2018[14]; Visser, 2002[15]). Most empirical studies find that changes in preferences do not explain much of the decline in density (see Box 2.2 below). However, studies show that individuals' willingness to join a union rises after workers have "sampled" membership at work or experienced "unionism by proxy through social interaction" (Bryson and Gomez, 2005[16]; Bryson and Davies, 2018[14]). In that sense, the fall in union density could be a snowballing phenomenon: after an initial fall, further decreases might be the consequence of workers from younger cohorts being less exposed to the benefit of unionisation, and to unionism by proxy.

Another frequent explanation of union decline is that it stems from shifts in the structure of the economy, and in particular from the shrinking of the generally heavily unionised manufacturing sector, and the concomitant rise of the service sector, where workers tend to be less unionised (Gilfillan and McGann, 2018[17]; Farber and Krueger, 1992[18]; Visser, forthcoming[19]). Some studies also find that reduction in average firm size, a corollary of the disappearance of large manufacturing plants, had a negative impact on unionisation (Peetz, 1990[20]; Schnabel, 2013[21]). However, there is also long-standing[8] and mounting empirical evidence showing that decline in unionisation within industries is in fact more important in explaining the overall union density decline than industrial re-composition between industries (Schnabel, 2013[21]; OECD, 1991[22]). Another common hypothesis relates the decline in union density to the decreasing share of public sector jobs (Schnabel, 2013[21]; Lesch, 2004[23]).

The increasing prevalence of non-standard forms of employment, such as part-time, fixed term contracts, or employment through temporary work agencies, is another potential driver of density decline (Ebbinghaus, Göbel and Koos, 2011[24]; Fitzenberger, Kohn and Wang, 2011[25]). Across OECD countries, non-standard workers have a lower unionisation rate compared with standard ones (see Figure 5.1 in Chapter 5). Increasing shares of non-standard forms of employment might therefore drive unionisation down. Higher job turnover and smaller average job tenure, resulting in workers' limited attachment to workplaces, could also reduce their incentives to join unions as well as their opportunities to do so.

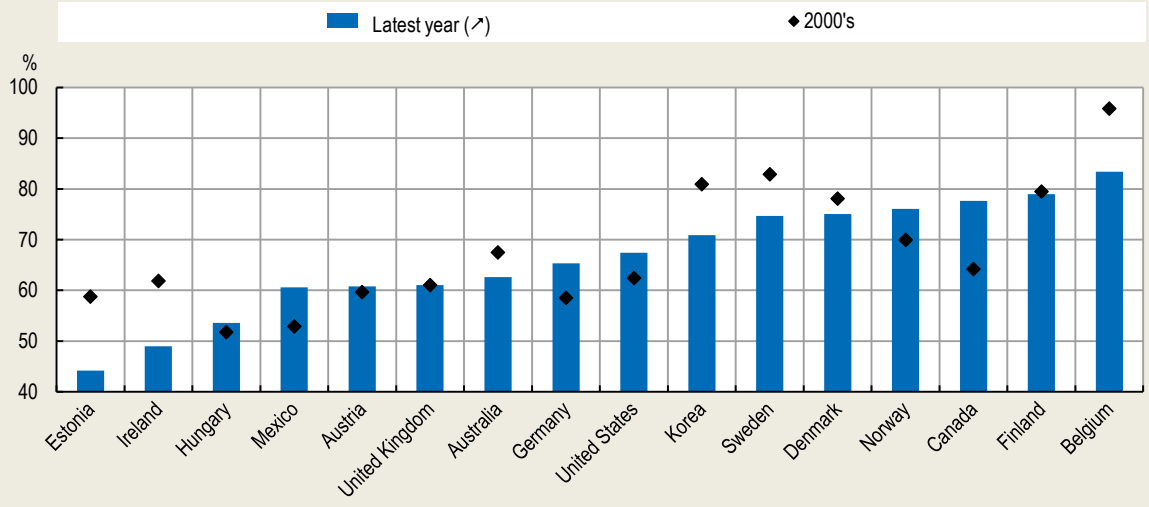
Changes linked to social partners themselves could also explain density decline. Numerous studies point to increases in management resistance as a potential cause, especially in countries where unions have to be certified at the workplace level (Legree, Schirle and Skuterud, 2014[26]). Forms of employers' resistance to unionisation include the use of union avoidance consultants, threats to close workplaces, or illegal firings of workers' representatives (Bronfenbrenner, 2009[27]). The use of individualised performance management systems, of incentive-based pay structures and other employer-driven changes to work organisation which participate to the individualisation of the working relationship are also evoked as potential causes of union density decline (Bennett and Kaufman, 2002[28]). Authors also point to the inefficiency of unions' recruitment strategies, arguing that they have failed to expand their reach into growing sectors of the economy (Visser, forthcoming[19]). Inter-union competition for members and union fragmentation are also identified as potential drivers of union decline. Conversely, union amalgamation into larger, less responsive confederations could also foster membership decline (Wooden, 1999[29]).

Box 2.2. Are young workers turning their noses up at unions?

Trade-union density is particularly low among young workers and has fallen by more than the rate for older workers since 2000 in close to half of the countries shown in Figure 2.5. According to some, this pattern reflects the different preferences of younger generations (Blanchflower, 2007[13]). Young workers have been described as more individualistic than older ones (Berry and Mcdaniel, 2018[30]), less attached to a given firm, and less prone to engage in collective action. Alternatively, some say that they favour environmental and consumer organisations, thus crowding out unions (Inglehart, 1997[31])). Yet another argument is that younger workers find unions unattractive and old-fashioned.

Figure 2.5. Trend in union density among youth in selected OECD countries

Young-to-adults ratio of union density, 2000's and latest year available (%)



Note: Trade union density by age group for Austria, Belgium, Denmark, Finland, Germany, Norway and Sweden have been adjusted for the overall trade union density by using the share of age groups in total union membership and total number of employees. Estimates based on the European Social Survey (due to size of the sample or of subcategories in certain countries) may be imprecise and are only reproduced to illustrate common patterns across OECD countries. 2000's refers to 2000 for Australia, Canada, Estonia, Sweden, the United Kingdom and the United States; 2001 for Germany; 2002 for Austria, Belgium, Denmark, Finland and Norway; 2003 for Ireland; 2004 for Hungary (second quarter) and Korea; and 2005 for Mexico. The latest year available is 2014 for Denmark; 2015 for Germany and Hungary (second quarter); 2016 for Austria, Belgium, Finland and Norway; 2017 for Canada, Estonia, Ireland, Sweden and the United Kingdom; and 2018 for Australia, Korea, Mexico and the United States. Youth refers to employees aged 20-34 and adults to those aged 35-54.
Source: OECD estimates based on the European Social Survey (ESS) for Austria, Belgium, Denmark and Norway, the Labour Force Survey (LFS) for Canada, the Finnish Working Life Barometer (FWLB) for Finland, the German Socio-Economic Panel (SOEP) for Germany, the Quarterly National Household Survey (QNHS) for Ireland, the Encuesta Nacional de Ocupación y Empleo (ENOE) for Mexico, and the Current Population Survey Merged Outgoing Rotation Groups (CPS-MORG) for the United States. Data provided by national statistical authorities based on the Survey of Employee Earnings, Benefits and Trade Union Membership (EEBTUM) and the Characteristics of Employment (COE) Survey for Australia, the Labour Force Survey (LFS) for Estonia, the Labour Force Survey (LFS) for Hungary, the Economically Active Population Survey (EAPS) for Korea, the Labour Force Survey for Sweden, and the Labour Force Survey for the United Kingdom.

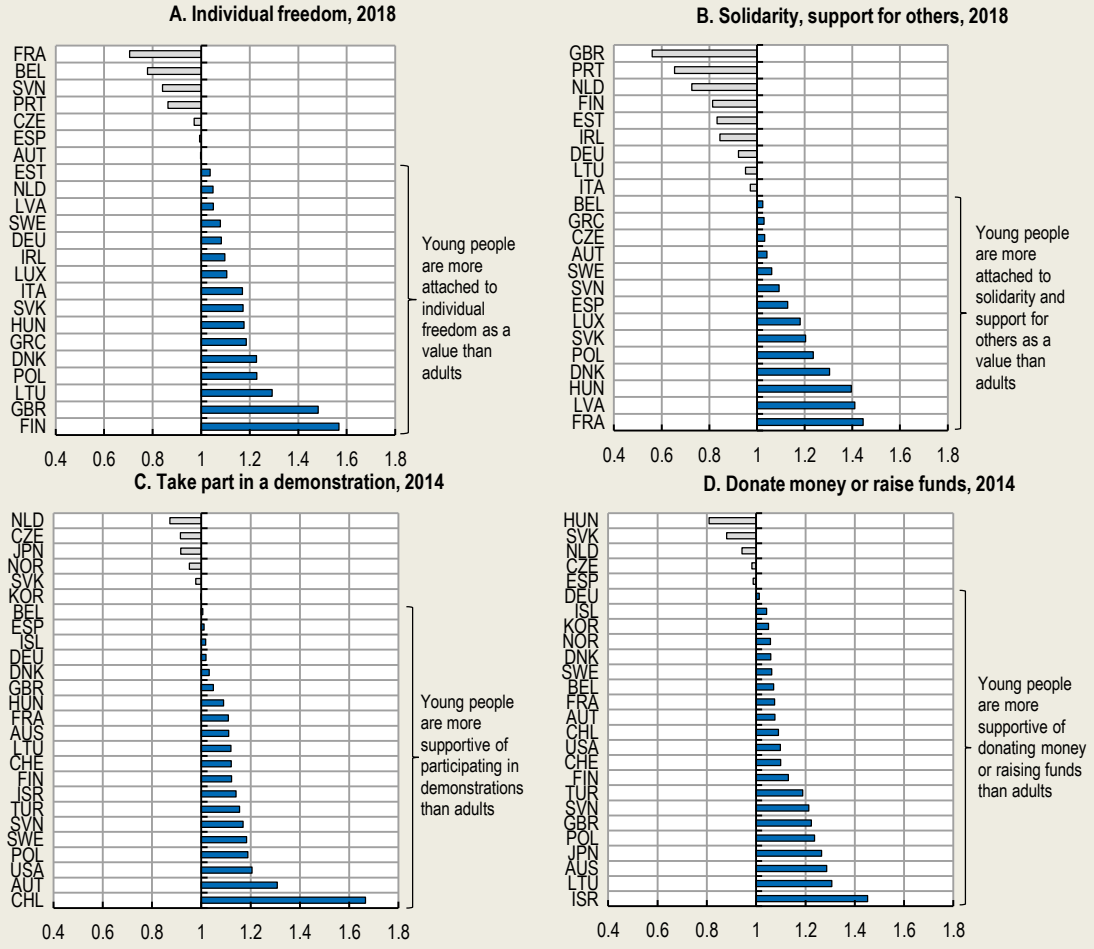
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Could systematically different preferences among young workers explain their lower rates of unionisation? Using available longitudinal survey data on attitudes, it is hard to find clear evidence supporting this hypothesis. As shown in Figure 2.6 (Panels A and B), in a majority of countries, respondents aged 20 to 34 are more attached to both individual freedom and solidarity with others than those aged 35-54. Young

respondents are also more supportive of collective actions such as attending a demonstration or raising funds for a social or political cause than their older peers in most countries (Panels C and D). Finally, the proportion of 20-34 year olds who are members of environmental (8.4%) or consumer organisations (6.5%) is on par with that of older respondents (9.5% and 7.7%) (World Value Survey, 2010-2014). In addition, contrary to the "crowding out" hypothesis, Ebbinghaus et al. (2011[24]) find that such engagement is in fact positively associated with union membership.

Figure 2.6. Individual values and support for collective action among young people

Young-to-adults ratios



Note: Statistics in Panels A and B are based on a question about respondents' three most important personal values. In Panels C and D, statistics refer to individuals who ever participated or might participate in particular collective actions. See Annex 2.D for further details.
Source: OECD calculations based on the Standard Eurobarometer 89, March 2018 (Panels A and B) and the International Social Survey Programme (ISSP) 2014, Citizenship module II (Panels C and D).

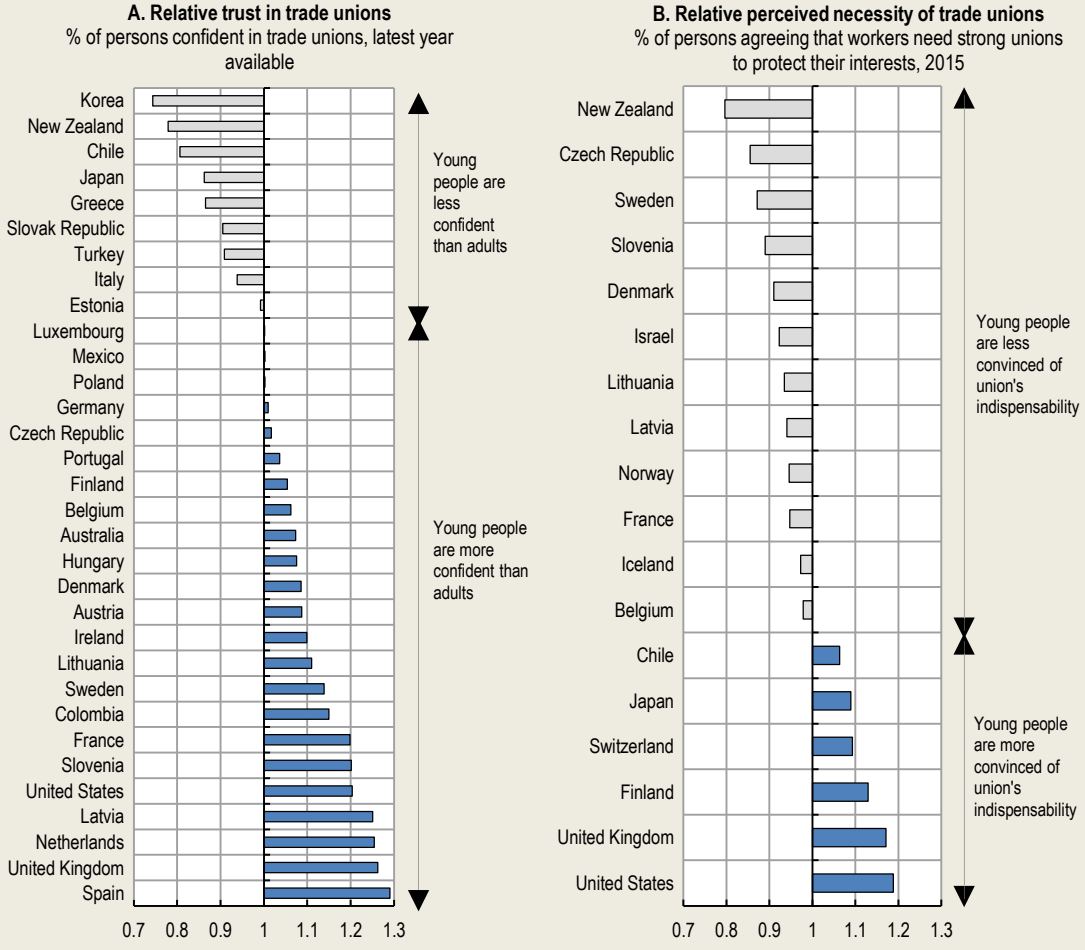
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Moreover, in contrast with commonly held ideas about young workers disliking unions, confidence in trade unions is higher among young workers than among older ones in 23 out of 32 countries (Figure 2.7, Panel A). These measures are consistent with various country case studies: for instance, Bryson et al. (2005[32]) found a substantial frustrated demand for unionisation among young workers in Canada, the United Kingdom and the United States.

In these latter two countries, higher trust in trade unions among young workers is associated with a higher perception of unions' indispensability in protecting workers' rights. However, in two-thirds of the countries represented in Figure 2.7 (Panel B), young workers appear less convinced than older ones that workers need strong unions to protect their interests. This leads to a surprising pattern in countries like Denmark, France, Latvia, Lithuania, Slovenia, or Sweden, where young respondents are more confident in unions than older respondents but less convinced that workers need them to protect their rights. Explaining these contradictory patterns is beyond the scope of this box. However, these data do not support strong claims about young workers' weaker interest in collective action driving the age related membership differential.

Figure 2.7. Trust and perceived necessity of trade unions among young people aged 20-34

Young-to-adults ratios



Note: Youth refers to persons aged 20-34 and adults to those aged 35-54. The latest year available in Panel A refers to 2010 for Japan and Korea; 2011 for Chile, New Zealand and the United States; 2012 for Colombia and Mexico; 2016 for Australia; and 2018 for all the European countries. In Panel B, Belgium refers to Flanders only and age groups for Denmark refer to youth aged 26-35 and adults aged 36-55. For further details, see Annex 2.D.

Source: Panel A: OECD calculations based on the Australian Election Study (AES) for Australia, Eurobarometer 89.1, March 2018 for the European countries, and the World Value Survey (WVS) for all other countries. Panel B: OECD calculations based on the International Social Survey Program (ISSP) 2015, Work Orientation module IV and the Pew research Center Poll (March 2015) for the United States.

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If not preferences, then what could explain the membership differential between younger and older workers? Structural labour market factors are good candidates for an explanation. Indeed, young workers tend to work in sectors characterised by weak union presence, which limits their opportunity to join unions in the first place. They are also disproportionately employed on non-standard contracts, which reduces the benefits and increases the costs of union membership (Ebbinghaus, Göbel and Koos, 2011[24]). Annex Figure 2.D.1 shows that composition effects provide a partial answer to the puzzle of young people's lower unionisation. When controlling for various factors including gender, educational level, type of contract (temporary vs open-ended), industry, public vs. private sector, occupation, firm size and full time vs. part-time employment, the gap in young-to-adult union membership is reduced in all countries studied. However, it is closed in none. Composition effects significantly close the gap in the United States, Canada, or France but explain relatively little in the United Kingdom or Germany – while a differential of around 30% remain in these last three countries. While non-standard employment has developed in the last two decades, composition effects are not explaining a larger part of the membership differential in recent years compared with the 2000s.

Another prevalent explanation in the literature is that union density is lower among young workers because they have not yet had a chance to evaluate the benefit of union membership. Exposure to union benefit and union membership would be part of one positive self-reinforcing loop (Givan and Hipp, 2012[33]). Yet because of their limited labour market experience, young workers might have a limited awareness of unions and their purpose (Keune, 2015[34]) – in other words the probability that they have not yet entered that loop is high. This is consistent with Bryson et al. (2005[32])'s description of union membership as an experience good: it can only be properly valued after one has been exposed to it.

Young workers also face higher entry barriers to unionisation. Supply-side constraints such as employers' resistance to unionism, the lack of dedicated recruitment efforts from unions (Vandaele, 2012[35]), or the relatively high cost of membership rates might also explain the lower unionisation of young workers.

A last group of hypotheses considers the role of *institutional change*. First, a large number of studies point to reforms of national legislations regulating collective bargaining as important determinants of density decline. Some policy reforms have made it harder for unions to recruit members. For instance, in Sweden, policy-mandated increases in membership fees have driven membership down (Kjellberg, 2011[36]). In some countries, the move towards firm-level bargaining has contributed to reduce union bargaining power and as a result their relevance and attractiveness to workers (Australian Bureau of Statistics, 2000[37]; Legree, Schirle and Skuterud, 2014[26]). Second, the deterioration or erosion of institutions that historically favoured unionisation could explain part of the density decline. For instance, while the existence of insurance funds administered by union-affiliated institutions[9] historically encouraged workers' unionisation, their erosion – following reforms or the development of private alternatives – might explain part of the decline in union density (Cohen, Haberfeld and Mundlak, 2007[38]; Ebbinghaus, Göbel and Koos, 2011[24]). Böckerman and Uusitalo (2006[39]) show that the erosion of the Ghent system in Finland following the development of private insurance funds explains density decline there – see also Høgedahl and Kongshøj (2017[40]). Third and finally, other labour market institutions could have crowded out unions by granting workers protections and thus decreasing the need for unions. Legislative progress in matters of employment protection, benefit duration, or indexation clauses (Checchi and Lucifora, 2002[41]) as well as the use of mandatory extension provisions and/or the presence of a minimum wage could decrease workers' demand for union protection (Flanagan, 2005[42]). The development of alternative means of meeting workers' demand for voice, such as employee involvement initiatives could also generate a crowding out effect (Morisette, Schellenberg and Johnson, 2005[12]).

2.3.2. Contrary to an enduring notion, demographic and structural shifts in the economy explain only a marginal part of the fall in trade union density

Available data[10] do not allow undertaking reliable analyses on the role of economic globalisation, changes characterising social partners themselves, and institutional change on a cross-country basis.[11] The relevance of these macro-level drivers can only be properly assessed through longitudinal country-specific analyses; these should be the object of future research. This chapter focuses on what can be done using individual-level data, and tests the effect of: i) demographic changes; ii) changes in jobs characteristics (changes in the size of sectors/industries and the development of non-standard jobs); and iii) generational replacement (i.e. the replacement of older cohorts by younger ones).

A multivariate decomposition analysis is used to test the first two hypotheses (see Annex 2.A for details on the method, the data, the model specification, and the time-periods covered by this analysis).[12] Changes in trade union density are decomposed in two parts. The first part ("workforce composition effect") is linked to changes in the relative size of particular groups of workers, such as female workers, highly educated workers, or workers on particular type of contracts, who are characterised by different propensities to unionise. The second part ("unionisation effect"[13]) is linked to changes in individuals' propensity to unionise within groups. Using a multivariate decomposition approach allows identifying the effect linked to changes in the relative size of each particular group in the workforce.

Figure 2.8 below presents results from this analysis. Transformations affecting the composition of the workforce are no silver bullet explanatory factors of union decline across OECD countries. They contribute a small amount to a decrease of trade union density in 8 out of the 15 countries studied (Austria, Belgium, Denmark, Germany, Israel, Mexico, the United Kingdom and the United States), but to an increase in others. In Australia, Finland, Germany, the United Kingdom, and the United States, the contribution of composition changes to density decline is very small. Composition changes contributed substantially to union density decline (Annex Table 2.C.1) in Austria (45% of the 9 percentage point drop in union density over the observed period) and Israel (59% of a 11.6 percentage point drop). In Belgium and Denmark, composition changes explain a substantial part of what is a relatively small decline in union density (58% of a 2.8 percentage point drop and 36% of a 3.2 percentage point drop respectively).

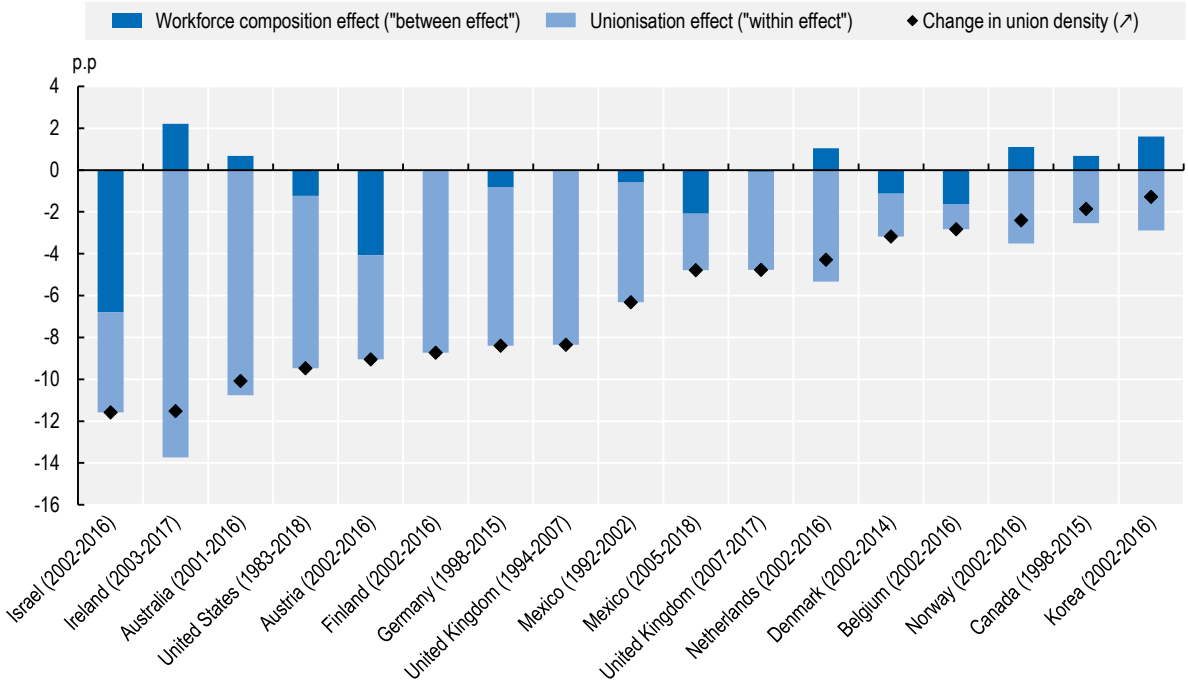
Looking at particular factors in more details, the effect of demographic changes is generally very small (Figure 2.9). Demographic changes contributed to increasing, rather than decreasing, trade union density in 12 out of 15 countries studied. No clear cross-country pattern emerge when looking at the effect of particular demographic drivers (Annex Figure 2.C.1). Increases in the share of women in the workforce resulted in small decreases of union density in Austria, Belgium, Norway and the United Kingdom (1994-2007). Changes in education levels contributed to decreasing union density in Austria, Belgium, Denmark, Israel, Korea, the Netherlands, the United Kingdom (1994-2007) and the United States.[14] Finally, changes in the age composition of the workforce contributed to decreasing union density over the whole period considered in Canada, Israel, Mexico (2005-18) and the United Kingdom (1994-2007).[15] Effects also vary when considering different sub-periods (Annex Table 2.C.2). For instance, demographic changes contributed negatively to changes in union density between 1994 and 2007 in the United Kingdom, but positively after that. Overall, these results suggest that demographic changes are a (minor) part of the equation in some countries and in particular sub-periods, but did not drive density decline in all countries over the whole period considered.

Changes in job characteristics (i.e. industry, sector, occupation) contributed a relatively bigger but still minor part to union density decline. Overall changes in job characteristics contributed to the decrease in trade union density in 8 out of 15 countries. Occupational shifts and industrial re-compositions contributed to union density decline in 10 countries (Annex Figure 2.C.2). Changes in average firm size contributed to decrease in union density over the observed period in Israel, Mexico (2005-18) and the Netherlands.[16] Finally, changes in the size of the public sector contributed to small decreases of union density in Australia,

Germany, Mexico, the United Kingdom (2007-17) and the United States.[17] Again, these effects vary across time within countries (Annex Table 2.C.2).

Figure 2.8. The contribution of composition changes to the decline in union density is generally small and varies across countries

Percentage-points change in union density



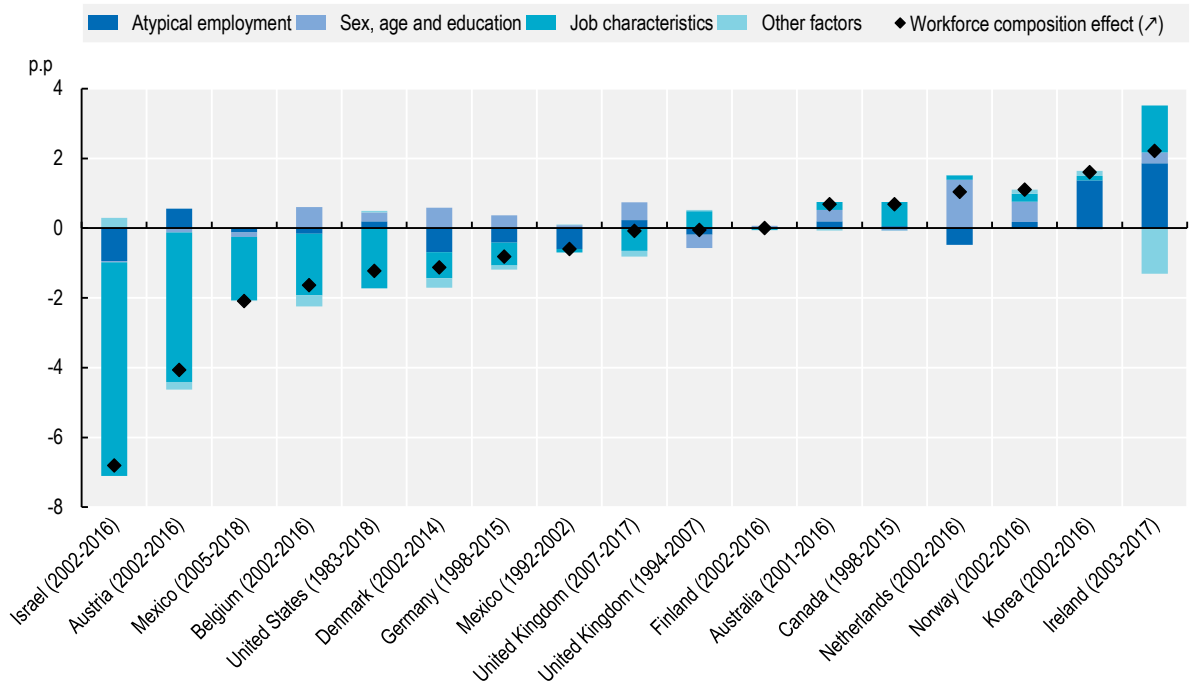
Note: Multivariate decompositions analysis based on probit regressions including control for sex (female), age groups, education, migrant workers, job tenure, type of contract (part-time), contract duration (temporary jobs), occupation, industry, quintiles of the hourly earnings, sector (public sector) and firm size. See Annex 2.A for further details on the methodology and Annex 2.B for details on definitions and variables included in the analysis.
Source: See Annex Table 2.B.1.

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Finally, increases in the share of non-standard forms of employment, and in particular the increasing incidence of part-time employment, contributed a minor part to union density decline in some countries (Annex Figure 2.C.3). Changes in the proportion of part-time employment[18] contributed a little to union density decline in Australia, Belgium, Denmark, Finland, Germany, Ireland, Israel, Korea, Mexico (1992-2002) and the Netherlands. The effect of changes in job tenure could only be tested for a limited number of countries. Changes in job tenure contributed a little to union density decline in Germany and the United Kingdom (1994-2007). Shifts in the proportion of temporary vs. permanent workers contributed to small decreases in union density in 11 cases.[19] However, again, these changes leave the bigger part of union density decline unexplained.

Figure 2.9. Assessing the relative effect of various composition changes on trade union density

Percentage-points change in union density explained by workforce composition effect ("between effect")



Note: Multivariate decompositions analysis based on probit regressions including control for sex (female), age groups, education, migrant workers, job tenure, type of contract (part-time), contract duration (temporary jobs), occupation, industry, quintiles of the hourly earnings, sector (public sector) and firm size. See Annex 2.A for further details on the methodology and Annex 2.B for details on definitions and variables included in the analysis.
Source: See Annex Table 2.B.1.

StatLink http://dx.doi.org/10.1787/888934027038

2.3.3. Density decline is not linked to generational replacement in most countries studied

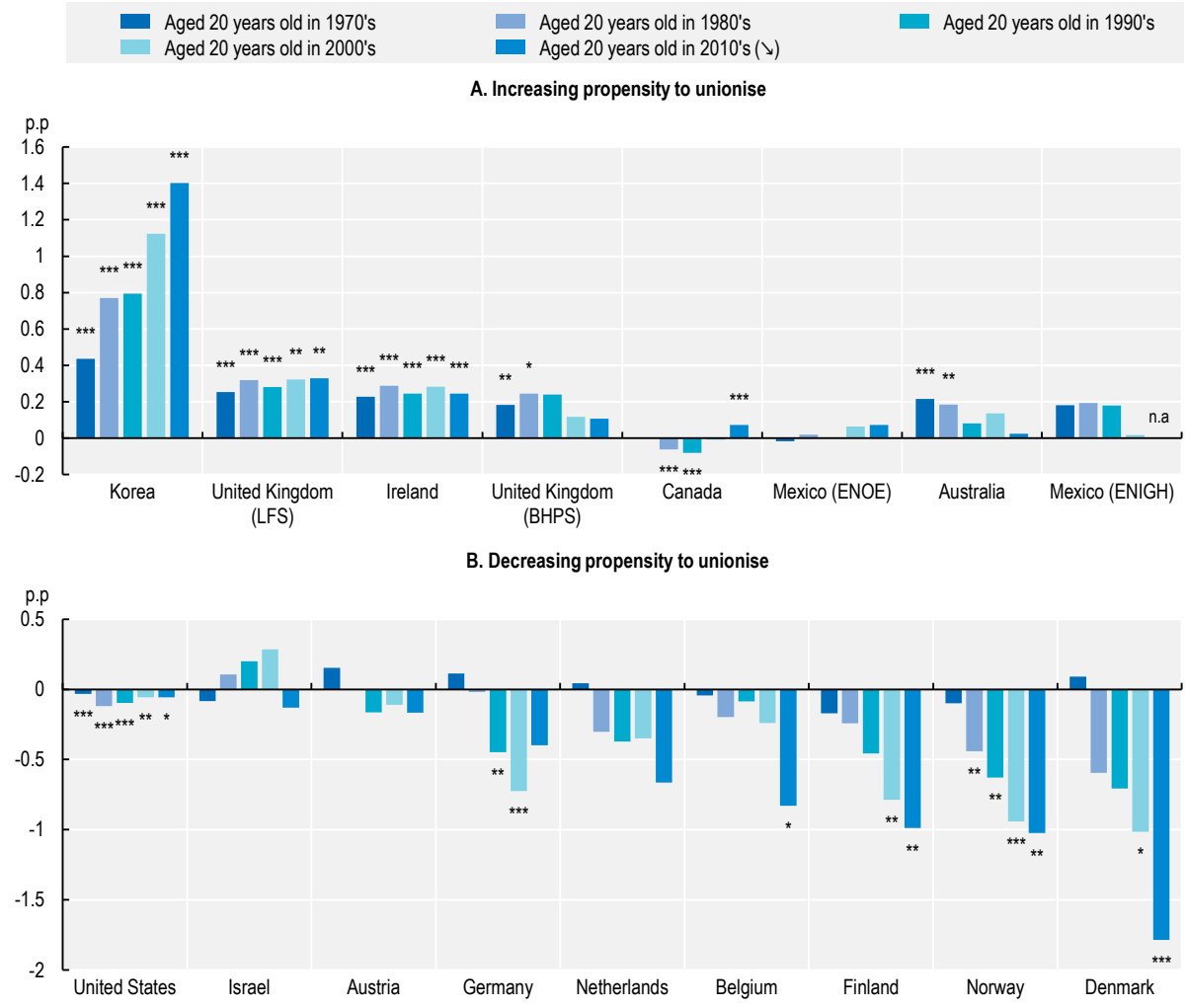
As explained in the literature review above, union density decline could be a cohort effect, if workers from younger cohorts have a systematically lower propensity to unionise than their older peers. This third hypothesis is tested through a regression analysis using individual-level data on unionisation. Results are presented in Figure 2.10, which shows, again, a contrasted picture across countries: differences in propensity to unionise between the cohort of workers who came of age in the 1960s and later cohorts are statistically significant in some, but not all contexts. Further, workers' propensity to unionise appears to have decreased over time in some countries, but increased in others.

In a limited number of contexts, changes in the propensity to unionise in later cohorts compared to that of workers socialised[20] in the 1960s coincide with movements in trade union density, and could potentially be explained by generational replacement. In Germany notably, union density started falling in the early 1990s, and Figure 2.10 shows that cohorts of workers socialised in the 1990s and the 2000s were significantly less likely to unionise than colleagues who preceded them. By contrast, cohort effects are unlikely to be involved at all in the explanation of density decline in Ireland, where workers' propensity to unionise continuously increased since the generation of those socialised in the 1960s, while trade union density started falling in the 1980s. Cohort effects in Korea are also continuously positive (and increasing)

since the 1960s. In Austria, differences in propensity to unionise between cohorts are never statistically significant.

Figure 2.10. Propensity to unionise by cohort varies considerably across countries

Percentage-point difference relatively to those aged 20 in the 1960's



Note: Logit regressions on trade union density controlling for cohorts (as reported), sex (female), age groups, education, migrant workers, job tenure, type of contract (part-time), contract duration (temporary jobs), occupation, industry, quintiles of the hourly earnings, sector (public sector) and firm size. See Annex 2.B for details on definitions and variables included in the analysis. n.a: not available.
Source: See Annex Table 2.B.1.

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However, in countries where union density decline looks like a cohort phenomenon, it is unclear whether generational replacement itself is the driver or trade union density decline, or whether both phenomenon (declining union density and the cohort effect) are caused by another factor, e.g. institutional changes characterising the moment when workers from younger cohorts were socialised. For instance, the negative effect on unionisation observed for German workers socialised in the 1990s and 2000s might at least partly reflect the effect of German reunification on workers who were 20 years old in the 1990s. If union density

decline is indeed a snowballing phenomenon as suggested above, declining propensities to unionise in younger cohorts might in fact be consequences of earlier falls. For instance, in Finland, negative cohort effects appear after the start of trade union density decline. Finally, even in cases where generational change could have fostered union density decline, the exact mechanisms driving the decline in unionisation in younger cohorts remains unclear.

2.3.4. Country-specific research is necessary to understand the variety of union density decline stories unfolding across country and time

Four main messages emerge from the analyses presented above. First, contrary to a commonly held belief, the cumulative contribution of transformations affecting the composition of the workforce and the nature of jobs supplied is relatively small: it leaves the bigger part of the phenomenon unexplained. Hypotheses that could not be tested to characterise this unexplained component (related to the changing attitudes of social partners, an increasing exposure to global competition, or institutional changes ranging from the erosion of institutions favouring unionisation, to changes in collective bargaining legislation) appear like promising avenues for future research.

Second, union density decline is not linked to generational replacement in most countries studied. Where density decline looks like a cohort phenomenon, the precise mechanism driving down unionisation in younger cohorts remains to be explored; it is likely to vary across countries.

Third, trade union density appears to be a largely multifaceted phenomenon, which varies across countries and time. Behind the apparently common trend characterising OECD countries, there appears to be a collection of country-specific stories. Within countries, trade union density decline is likely to be the cumulative product of a variety of smaller episodes of decline at particular points in time, driven by particular causes.

These three messages point to a fourth one, namely that future research should focus on country-specific analyses. This would also allow properly testing the hypotheses related to institutional change, which are largely context-specific.

2.4. The scope of collective bargaining

2.4.1. Collective bargaining coverage

The share of employees covered by collective agreements (the collective bargaining coverage[21]) also declined significantly over the past 30 years. This indicator is key for comparing the relative strength of collective bargaining across countries since it captures the extent to which workers' employment conditions are actually influenced by collective negotiation. On average across OECD countries, it shrunk by a fourth, from 45% in 1985 to 32% in 2017 (Figure 2.11). With the exception of some of the countries which passed major labour market reforms during the last five years, the recent economic crisis did not represent a particular turning point and coverage continued to decline.

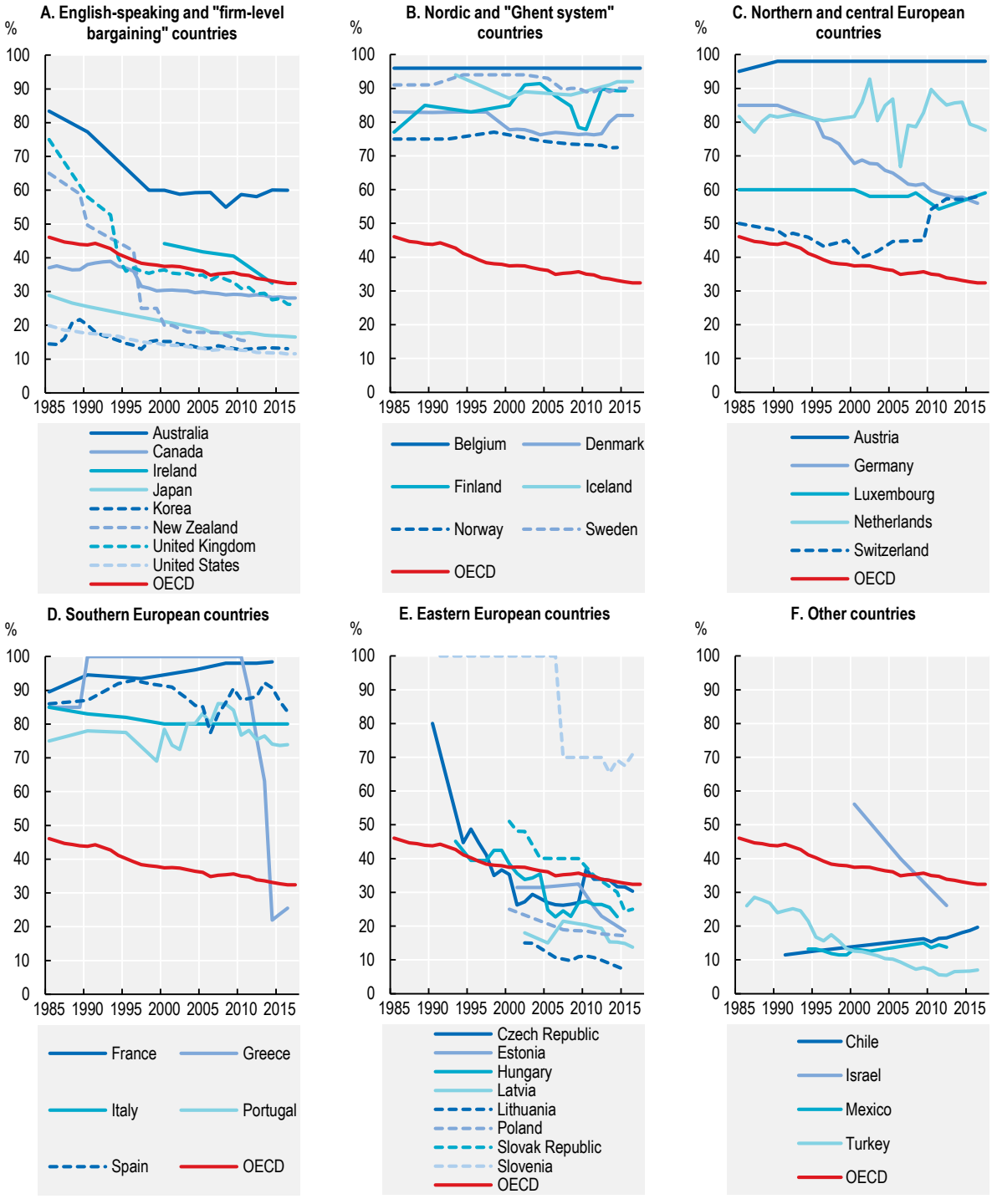
As with trade union density, the decline was the strongest in Central and Eastern European countries where the collapse of the old regimes led to abrupt changes in the role of trade unions and collective bargaining. Steep decreases were also observed in Australia, New Zealand and the United Kingdom where deep reforms took place in the 1980s. Coverage has been relatively stable in most continental European countries except for Germany and coverage also decreased more recently in Greece. The drop in collective bargaining coverage in Portugal during the crisis years is the subject to methodological controversies which are discussed in Box 2.3.

All in all, collective bargaining coverage is high and stable only in countries where multi-employer agreements (mainly sectoral or national) are negotiated (even in several of the Southern European

countries where trade union density is quite low). A second key element which matters for bargaining coverage is the relative strength, and willingness to negotiate, of employer organisations since they negotiate and sign collective agreements which in most countries then apply to all workers of their affiliated firms.[22] Indeed in countries where employers' density is high, coverage is also relatively broad and vice versa (with a correlation of 0.90; see Annex Figure 4.A1.11 in OECD (2017[7])). The relationship with trade union density is weaker (correlation of 0.64) and collective bargaining coverage is significantly higher than trade union density as in most countries agreements also apply to non-union members (see below the detailed discussion on *erga omnes* clauses and administrative extensions).

Figure 2.11. Trends in collective bargaining coverage rate

Percentage of employees with the right to bargain, 1985-2017



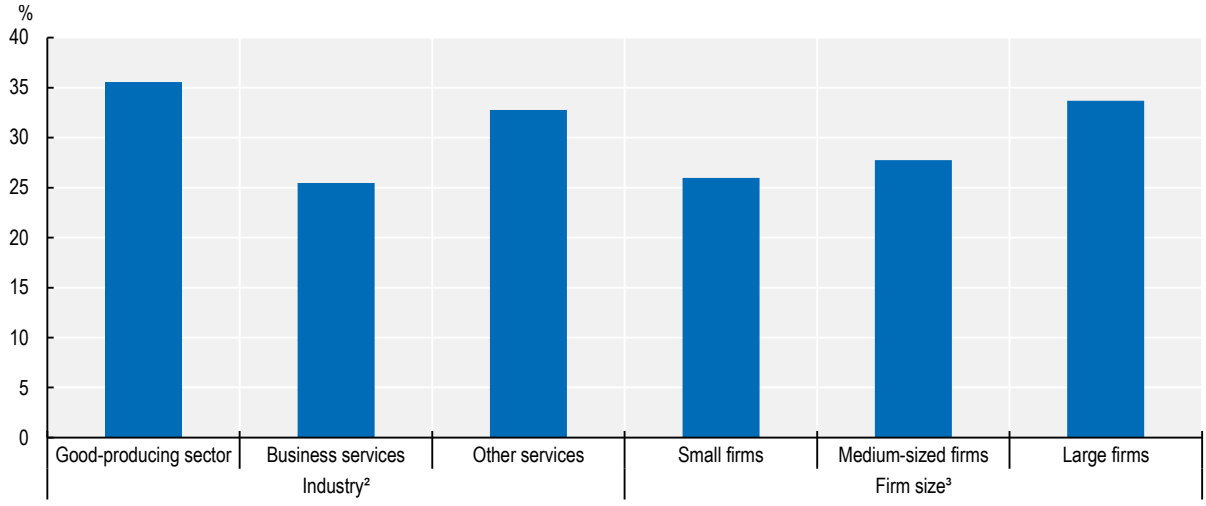
Note: OECD is the employee-weighted average of the 36 OECD Member countries.
Source: J. Visser, ICTWSS Database version 6.0. Amsterdam: Amsterdam Institute for Advanced Labour Studies (AIAS), University of Amsterdam. June 2019, http://uva-aias.net/en/ictwss.

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On average across OECD countries, collective bargaining coverage is slightly higher in the good-producing sectors (manufacturing, constructions and energy and electricity supply) than in business services or other sectors (Figure 2.12). However, firm size matters: 26% of workers are covered by a collective agreement in small firms while 34% are covered in large firms. In small firms, the probability of being covered by a collective agreement is much lower in the absence of a multi-employer agreement at sectoral or national level as small firms are much less likely to negotiate and sign a firm-level agreement. Indeed, in Chile, Estonia or Turkey collective agreements cover a negligible share of small firms, contrary to what happens in Nordic or continental European countries.

Figure 2.12. Collective bargaining coverage rate by industry and firm size

Percentage of employees in the private sector, latest year available[1]



Note: Statistics refer to the private sector only and to all firms for Australia and Canada excepted firms with less than five employees for Chile, firms with less than ten employees for Belgium, Greece, Italy, Slovenia and Sweden, and firms with less than 11 employees for other countries. OECD weighted average of 30 OECD countries (not including Israel, Japan, Korea, Mexico and New Zealand) for statistics by industry and 29 OECD countries (not including countries previously listed and the United States) for statistics by firm size.

1. Statistics refer to 2013 for Belgium, Greece, Iceland, Ireland, Italy, Slovenia and Sweden; 2014 for Chile and all other European countries; 2015 for Canada and the United States; and 2016 for Australia.

2. Good-producing sector refers to manufacturing (including mining and utilities) and construction; business services refers to commerce and hospitality, transport and communication and financial services and real estate; other services refers to remaining social and personal services excepted activities of households as employers and activities of extraterritorial organisations.

3. "Small firms" refers to firms with fewer than 50 employees; "Medium-sized firms" to firms with 50 to 249 employees; and "Large firms" to firms with 250 employees or more.

Source: OECD calculations based on the Survey of Employee Earnings and Hours (EEH) for Australia, Labour Force Survey for Canada, administrative data for Chile, the Current Population Survey (CPS) for the United States, the third Eurofound European Company Survey (ECS 2013) for Belgium, Greece, Iceland, Ireland, Italy, Slovenia and Sweden, and the 2014 Structure of Earnings Survey (SES 2014) for all other European countries.

StatLink http://dx.doi.org/10.1787/888934027095

Box 2.3. Computing collective bargaining coverage: Stock or flows?

In the wake of the Portuguese labour market reform that introduced in 2012 significant changes to the way collective bargaining works (largely reversed since then), making notably the rules for administrative extensions more rigid, there has been much debate on the extent of bargaining coverage decrease. Indeed, computing collective bargaining coverage is not straightforward, despite good and detailed data (*Quadros de Pessoal*, Personnel Records, a compulsory survey of all firms, conducted annually in October) as it requires a series of assumptions.

An ILO report (ILO, 2014[43]) for instance argues that the 2012 reform led to a 80% decrease in coverage based on the drop of the number of sectoral and firm-level agreements between 2008 and 2012 (from 300 down to 85) bringing the number of workers covered by these agreements from 1.9 million down to 300 000.

Addison et al. (2016[44]) counter that these figures mix stocks and flows. In particular they point out that, while the flow of new agreements considerably slowed down after the reform, the stock of workers covered by collective agreements barely changed between 2008 and 2012 (at around 90%), as many workers remained covered by the former agreements. This stability has also been confirmed using more recent data for 2014 (OECD, 2017[45]).

National estimates based on *Quadros de Pessoal* published by the Portuguese Labour Ministry in its recent Green Paper on Labour Relations (Ministério do Trabalho, 2016[46]) show a decrease in the stock of workers covered from 85.4% in 2010 to 80.5% in 2014 and a large decrease in terms of flows of workers covered, from 54.1% in 2010 to 10% in 2014.

Data from the Institutional Characteristics of Trade Unions, Wage setting, State Intervention and Social Pacts (ICTWSS Database) are less dramatic than those of ILO report, but they also find a significant fall of coverage rate from 84.9% in 2007 to 72.2% in 2013. These estimates are based on the same numerator (i.e. stock of workers covered by collective agreements) as Addison et al. (2016) but use a different denominator (e.g. OECD employment data to include temporary, part-time and agricultural workers, yet excluding employees in the public sector whose terms of employment are not set by collective agreements).

However, Visser (2016[47]) argues that even the ICTWSS estimates should be taken with great caution given that many workers are actually covered by old agreements whose wage floors may not be binding anymore as they are probably below the minimum wage level (but non-wage conditions still apply). Fougère et al. (2016[48]) report the same for France. Naumann (2018[49]) finds that, in 2013, at least half of valid collective agreements in Portugal have more than eight years and around 30% of employees covered by collective agreements have not had their contracts renewed since 2009. While similar computing problems are encountered in France for instance, in the Netherlands expired agreements are removed from the register and no longer counted (with one year delay).

In conclusion, providing clear-cut estimates of effective collective bargaining coverage is far from easy, in Portugal as in most of other countries. Using only flow data (new agreements) is not correct as it would lead to ignore workers who are still covered by old agreements. At the same time, using stock data is also problematic, as in some cases agreements may not be binding anymore, or only partially, leading to an overestimation of coverage. Changes in average duration of agreements and possible retroactivity of agreements further complicate the estimation. Furthermore, the choice of the denominator is also crucial in the computation, especially in light of the widespread use of non-standard forms of employment, not systematically well covered in standard surveys.

2.4.2. Extensions and erga omnes provisions

In many OECD countries, the share of workers covered by collective agreements is significantly higher than the share of workers who are member of a trade union. At the same time, collective bargaining coverage patterns have been much more stable than trade union membership. This difference is sometimes somewhat improperly referred to as "excess bargaining coverage" and used as a proxy for administrative extensions of collective agreements, while it is actually the result of both *erga omnes* (literally in Latin, "towards everybody") clauses and administrative extensions.

In principle, an agreement between unions and an employer or employer organisations applies only to the signatory parties ("double affiliation principle"). *Erga omnes* clauses extend the terms set in a collective agreement to all workers, not only to the members of signatories unions. *Erga omnes* clauses are usually embedded in the law. However in most countries where agreements are legally binding only for members of the signatory trade unions (Table 2.1), employers often voluntarily provide the same or similar conditions for all employees within the company (sometimes because employers do not know who is a union member). *Erga omnes* clauses simplify the system (since the same terms apply to all workers), increase fairness, limit rivalries and help social peace and reduce transaction costs. However, *erga omnes* clauses may also represent a disincentive for workers to become members of a union (a typical free-rider problem).

Table 2.1. Use of *erga omnes* clauses, 2018

		Sectoral agreements			
		Not applicable	Erga omnes[1] (de jure or de facto)		Double affiliation[2]
Firm-level agreements	All workers	Australia Canada (BC, ON and QC) Costa Rica Poland United Kingdom United States	Austria Belgium Canada (AB) Czech Republic Denmark Estonia Finland France Hungary Iceland Ireland	Israel Italy Latvia Lithuania Luxembourg Mexico Netherlands Norway Slovak Republic Slovenia Spain	Greece
	Only union members	Colombia New Zealand[3]			Germany Korea Japan Chile* Portugal* Sweden Switzerland* Turkey

Note: AB: Alberta; BC: British Columbia; ON: Ontario; QC: Québec.
1. *Erga omnes*: agreements cover all workers, not only members of signatory unions. This is fixed either by the law (*de jure*) or is a standard practice (*de facto*).
2. Double affiliation: agreements cover only workers who are member of a signatory union working in a firm member of a signatory employer association.
3. Workers can opt in at firm level. In New Zealand, employers and unions can agree that collective terms and conditions may be passed on to other employees or unions, which would include non-union members.
Source: OECD Policy Questionnaires.

Extensions (or administrative extensions) go one step further and cover workers in all firms within an industrial sector, including also firms that have not signed the agreement or are not affiliated to an employer organisation which signed the agreement. Extensions are usually an "*act of public policy based on an*

explicit legislation mandating the government, a public agency or in some cases a court to apply the collective agreement beyond its signatories" (Visser, 2018[50]). Extensions, or their functional equivalent,[23] are present in two-thirds of OECD countries. However, their specific functioning is extremely diverse: in some countries agreements are extended by default (e.g. in Iceland, Italy and Spain where agreements cover all firms), in some quasi automatic (e.g. in France), in others very rare (e.g. Japan or Central and Eastern European countries). In some countries they are subject to some criteria. In Germany, for instance, any extension decision has to pass a binding advice of the tripartite committee in the Labour Ministry (until 2015 there was also a threshold of 50% of workers covered by signing firms) and is *de facto* subject to a veto from employers. Table 2.2 summarises the frequency of extensions and the criteria used to grant them across OECD countries. The figures in parenthesis refer to the additional coverage rate (as a percentage of employees) provided by extension measures.

Table 2.2. Scope and coverage of extensions (or functional equivalent) mechanisms in place in OECD countries, 2018

	Subject to relatively binding criteria	Subject to relatively mild criteria	Not subject to any criteria
Common	Finland (16.0% in 2014) Netherlands (10.8% in 2016) Slovenia (9.4% in 2013) Switzerland (13.7% in 2013)	Belgium (14.0% in 2008) France (25.0% in 2012) Portugal	Iceland[1] Italy[1] Spain[1] (6.0% in 2008)
Uncommon	Austria Czech Republic (5.4% in 2014) Germany (0.4% in 2008) Hungary (2.5% in 2012) Israel Japan Latvia Norway Slovak Republic (0% in 2011) Turkey	Estonia (1.0% in 2012)	Korea Lithuania (0% in 2013) Luxembourg Mexico Poland

Note: Extension mechanisms do not exist in Australia, Canada (except in Québec where they are rare), Chile, Colombia, Costa Rica, Denmark, Greece (until September 2018), Ireland, Korea, New Zealand, Poland, Sweden, the United Kingdom and the United States. Figures in parenthesis refer to the additional coverage rate (as a percentage of employees) due to extension measures. For Belgium, France, Iceland, Ireland, Portugal, Slovenia and Spain, the figures refer to the difference between the coverage rate and the organisation rate of employers.
1. No formal administrative extensions but functional equivalent are in place. Compulsory membership to an employer association in Austria can also be considered a functional equivalent.
Source: OECD Policy Questionnaires and J. Visser, ICTWSS Database version 6.0. Amsterdam: Amsterdam Institute for Advanced Labour Studies (AIAS), University of Amsterdam. June 2019, http://uva-aias.net/en/ictwss, for additional coverage rate.

Extensions are often issued out of fairness considerations to ensure the same treatment and standards to all workers in the same sector, in particular for workers for foreign firms or service providers, and migrant and posted workers (Hayter and Visser, 2018[51]). By doing so, extensions can level the playing field across firms and ensure a fair competition.[24] Extensions also reduce the transactions costs linked to lengthy and detailed negotiations over the terms of employment, especially for small firms that lack the resources (or do not have workers representation) to engage in firm-level bargaining in which case workers would never be covered by an agreement (Blanchard, Jaumotte and Loungani, 2014[52]). In some cases, extensions are also issued in order to guarantee the stability of the collective bargaining system and the sustainability of some forms of "public goods" such as sectoral training and mobility schemes that are funded via collective agreements (De Ridder and Euwals, 2016[53]; Hayter and Visser, 2018[51]). Finally, extensions also contribute to spread best practices in terms of personnel management, training, health and safety, technology usage, insurance, retirement packages, or performance-related incentives.

On the opposite, extensions can become a tool of unfair competition, for instance when extensions are used by "insider" firms to drive competitors out of the market (Haucap, Pauly and Wey, 2001[54]); Magruder, (2012[55]); Martins (2014[56]). More in general, extensions may also have a negative impact when the terms set in the agreement do not account for the economic situation of a majority of firms in the sector: for instance, when the employer association is representative only of large and relatively more productive firms (and hence willing to pay higher wages), it may agree on wage floors and other components that are not sustainable for smaller and less productive firms. Finally, delayed extensions that require the payment of sizeable pay arrears can also severely affect the labour market during a period of liquidity constraints for firms – see Hijzen and Martins (2016[57]) for the case of Portugal.

In order to partly alleviate these concerns, extensions may be issued when the "collective agreement already covers a number of the employers and workers concerned which is, in the opinion of the competent authority, sufficiently representative", as stated in the ILO Recommendation on collective agreements (No. 91). In several OECD countries administrative extensions are subject to threshold representativeness criteria (more details in the detailed tables available online[25]): collective agreements can only be extended if they are signed by *employer organisations* representing a minimal share of workers (most often the majority). A few countries also request that signing *unions* represent a majority of workers. However, while these criteria may be important, a more important concern is to ensure that signing employer organisations do not only represent a few selected firms. In most countries these thresholds are checked only at the moment of signing the agreement or issuing the extension. An exception is in Switzerland, where they must hold for the entire duration of the agreement; therefore if coverage drops below the 50% threshold, the extension must expire (Visser, 2018[50]). Introducing representativeness criteria in countries where they do not exist is not straightforward. As the 2012 Portuguese reform shows, it is not easy to define criteria that are sufficiently strict to be meaningful, while easy to be fulfilled hence allowing an effective role for extensions. Hijzen et al. (2019[58]) suggest opting for a gradual increase of the thresholds over time to ensure that non-representative extensions are eliminated and give time to employer associations to increase their membership levels, especially amongst smaller firms.

Having reliable and up-to-date statistics on trade unions' and employer organisations' membership is in all cases a necessary condition in order to have meaningful representativeness criteria. Portugal was able to swiftly introduce representativeness criteria in 2012 (then removed in 2017) thanks to the detailed information on firms' membership of an employer organisation contained in the *Quadros de Pessoal*. However, this is rather an exception across OECD countries. Membership figures of both trade unions and employers, as well as other indicators such as, for instance, the votes obtained at social elections, can be used as an indicator of the relative bargaining power of social partners and influence government actions. Bargaining parties may thus have an incentive to inflate statistics in search of influence power, in particular since official, detailed and up-to-date statistics on unions, employer organisations and collective bargaining are not widespread. Therefore, enhancing the reliability and accessibility of such data would help inform and improve the policy debate on collective bargaining.

Representativeness criteria based on thresholds may prove too rigid and unhelpful when the stability of the collective bargaining system or of common funds is at stake. Partly for these reasons, the threshold of 50% in Germany have been dropped. Alternatively, a possibility to derogate from the representativeness criteria could be left open in certain circumstances. In Switzerland, for instance, when unions can prove to public authorities that in a specific sector it is particularly complicated to organise workers (for instance, because of a high presence of foreigners or because of security issues that restrain the possibility to reach and organise workers on their workplace) there is a possibility to derogate from the criterion requiring that signing unions represent a majority of workers.

OECD countries could also submit the extension of collective agreements to a test of public interest, by which extensions could be denied if the social and economic circumstances do not warrant extending the terms beyond the signatory parties or, on the opposite, issued to safeguard the public interest (for instance to stabilise the collective bargaining system or avoid free-riding in common funds such as for training). As

argued in OECD (2017[45]), while the exact definition can vary, it is important that the criteria of public interest are announced well in advance by the government so that social partners can take them into account during the negotiation. Hijzen et al. (2019[58]) report that in the Netherlands, political actors frequently call upon public interest concerns to limit extensions, but do not use it so much in practice, being reluctant to interfere in the bargaining process.[26] In Norway, extensions are granted if it is proven that foreign workers work or could work under employment conditions that are worse than those set by national agreements for the trade or industry in question or what is common for the place and occupation. In France, the 2017 labour market reform introduced the possibility to block otherwise semi-automatic extensions out of public interest considerations, notably the risk of negative effects on competition. Public interest criteria could help introducing some degree of qualitative evaluation in the decision of granting or not an extension, above and beyond strictly threshold representativeness criteria, but may be more difficult to action and be more subject to partisan considerations. So far they are not used to any major extent in any of the OECD countries.

While representativeness criteria (and, if used, public interest clauses) aim to reflect as much as possible the situation of a wide set of firms, they cannot account for their full diversity. Few countries, therefore, also allow for exemptions from extensions. In the Netherlands clearly pre-defined criteria for exemptions are even a condition for extension. Moreover, firms can request an *ad hoc* exemption from the ministry if they can justify dispensation.[27] Hijzen et al. (2019[58]) report that, between 2007 and 2015, 191 requests of *ad hoc* exemptions were presented by Dutch firms, but only 58 were accepted. In Switzerland, although there are no formal rules for exemptions, in one case in 2012 firms with an annual turnover lower than 1.2 million Swiss francs (around EUR 1.2 million) were exempted (Visser, 2018[50]). Another option to better reflect the heterogeneity of firms and avoid the "one-size-fit-all" limit of extensions would be to encourage a differentiation within agreements as is done in the Dutch metal industry where, in practice, two agreements are signed, and extended, one for firms with 35 and more employees and one for firms with less than 35 employees. The French 2017 reform also conditioned the extension of a sectoral collective agreement to a differentiation of its content between large and small companies.[28]

Finally, existing statistics on collective bargaining coverage may underestimate the real extent of coverage, with or without extensions, due to "orientation", e.g. the possibility for firms to follow the terms set by the collective agreement of their reference sector while not being formally bound to it or to formally "opt-in", to reduce transaction costs and reduce the risks of conflicts. Opt-in is even sometimes suggested as a better alternative than allowing firms to "opt-out" from collective agreements. This option would hold if the main and sole rationale for issuing extensions would be a reduction of transaction costs; however several other reasons motivate in practice the use of extensions (such as levelling the playing field) and, therefore, opting-in cannot be considered a perfect functional equivalent. Moreover, even in countries where opt-in is relatively common, such as Germany, it does not appear to be a brake to declining coverage of collective agreements.

Based on establishment data,[29] Addison et al. (2016[44]) show that half of the German establishments which are not covered by a sectoral agreement still orient themselves to it. This partly cushions the effects of a declining coverage of sectoral agreements: between 2000 and 2013, while coverage decreased by 10.7 percentage points, from 60% to 49.3% of establishments, orientation increased by 4.1 percentage points, from 16% of establishments to 20.1%. Orientation, however, is a weak policy tool as firms can withdraw from the terms set in the agreement at any time or just pick-and-choose the elements of the agreement they like (a formal opt-in is a stronger tool as firms cannot withdraw easily, but as a consequence it is also potentially less appealing for firms). Addison et al. (2016[44]) find that wages in establishments not covered by sectoral agreements are indeed lower than those in covered firms. Orienting establishments pay better than non-orienting (and therefore fully uncovered) ones, but still not as much as covered establishments. Hence, orientation (or opt-in) fills some of the gaps left by a decreasing coverage but far from completely.

2.4.3. Duration, ultra-activity and retroactivity

The length of collective agreements, their validity beyond termination date (the so-called "ultra-activity") or before their entry into force in case of delays (the so-called "retroactivity") also influence bargaining coverage as noted earlier. In some OECD countries, collective agreements do not expire until they get replaced by new ones. This ensures the continuity of the system and prevents voids when collective agreements expire. In countries where the law leaves large, or total, room to collective bargaining (for instance in countries with no statutory minimum wage), expiration without any replacement or ultra-activity effects would leave workers totally uncovered. Clearly, a long, and even indefinite, duration of agreements strengthens workers' bargaining power by keeping them covered, even when employers are unwilling to negotiate new terms, and is ultimately contributing to increase stability and social peace. On the other hand, indefinite, or long, duration of agreements can make it more difficult for employers to renegotiate the terms of the agreement in times of crisis or deflation with potentially a negative effect on employment. Or they may lock workers in an outdated agreement (as pointed in the discussion on the estimation of the bargaining coverage in Portugal, Box 2.3), especially in times of higher inflation. Without co-ordinated and swift actions, indefinite duration of collective agreements may thus ultimately reduce the resilience of the labour market to unexpected shocks.

Table 2.3 shows where the maximum duration is specified in the law, fixed by social partners or not specified. Collective agreements of indefinite duration are typically negotiated in France, but they are also common in Belgium (and before the economic crisis of 2008, agreements had an indefinite duration or long ultra-activity in Greece and Spain as well). Countries which set a maximum duration by law, typically limit it to 36 months. Table 2.3 also shows that most OECD countries do not specify a maximum duration for the ultra-activity of an expired agreement, but leave it for negotiation between social partners. Among OECD countries, Luxembourg, New Zealand, the Slovak Republic, Slovenia and Spain (unless agreed otherwise) limit ultra-activity to 12 months. Limits to the duration of agreements beyond their termination date also exist in Greece. In addition, collective agreements can be terminated unilaterally by one of the signatory parties, in some countries such as Chile, Estonia, Poland or Switzerland. In most other countries, the union or the employer can ask for the termination of an agreement within a predefined notice period and the agreement has to be renegotiated while the terms of the former agreement remain valid. Across OECD countries, collective agreements are renewed on average every 12-24 months, or three years in Australia,[30] Chile, and Sweden. Canada and Portugal are outstanding exceptions with an average duration exceeding 40 months (see detailed tables available online[31]).[32]

Table 2.3. The duration, ultra-activity and retroactivity of collective agreements, 2018

	Limits to (or no) ultra-activity and no retroactivity	Unlimited ultra-activity and no retroactivity	Limits to ultra-activity and possibility of retroactivity	Unlimited ultra-activity and possibility of retroactivity
Maximum duration fixed by the law	Luxembourg New Zealand	Chile[1] Japan Latvia Netherlands	Greece Korea	Australia[1]
Maximum duration fixed by social partners	Slovak Republic	Austria Costa Rica Czech Republic Estonia Iceland[1] Israel Mexico Sweden[1] Switzerland	Portugal[1] Spain[1] Turkey United States	Colombia Denmark[2] Germany Italy Norway
No rule	France Slovenia[2]	Belgium Finland Hungary Ireland Lithuania Poland United Kingdom		Canada[1]

1. Average duration of collective agreements exceeds two years. For Australia, a collective agreement continues to apply until it is terminated or replaced.
2. Only for the manufacturing sector in Denmark and in the metal sector in Slovenia.
Source: OECD Policy Questionnaires.

Finally, Table 2.3 also shows that collective agreements can be applied retrospectively, i.e. before their signature date, in order to ensure the continuation of rights and obligations in case of late renewal. Most OECD countries leave the decision on the payment of arrears to social partners. In some cases, retroactivity applies to all firms and workers, including those covered by administrative extensions (or their functional equivalent). For instance, this happens, to different extents, in Belgium, Italy and Spain. Including in the retroactivity of the agreement also firms subject to the extensions contributes to levelling the playing field (and this is consistent with the spirit of sectoral bargaining and the logic behind extensions as argued by Hijzen, Martins and Parlevliet (2019[58]). Retroactivity is unlikely to have a significant economic effect in normal times as far as extensions can be anticipated. However, it may become a major burden for firms in case of liquidity constraints, by constraining them to pay sizeable arrears in a relatively short period of time. Hijzen and Martins (2016[57]) suggest that the negative effects on employment of extensions in Portugal before the 2012 reform was probably driven by the burden posed by the payment of arrears by cash-strapped firms.

2.5. Unpacking the complex machinery of collective bargaining

2.5.1. Centralised and decentralised bargaining systems

Levels of bargaining and favourability principle

The predominant level of bargaining as a proxy of the degree of centralisation occupied most of the attention of early studies on collective bargaining and macroeconomic performance. According to the

corporatist view which dominated in the 1980s, performance would increase with centralisation, as centralised regimes would be able to internalise the potentially adverse effects of wage increases on unemployment and competitiveness (Cameron, 1984[59]). The *centralisation* argument was however challenged by the "hump-shape" or "U-shape" thesis of Calmfors and Driffill (1988[1]), which was very influential in the 1990s and early 2000s and argued that both centralisation *and* decentralisation could actually perform well in providing either aggregate flexibility or micro flexibility, since decentralisation would allow wages to adjust to productivity across firms. In any cases, sectoral bargaining was found to deliver the worst outcomes. Empirical studies have not provided much backing for this simplistic view, and showed that even seemingly similar bargaining structures work differently while the degree of co-ordination seems a more important variable in explaining different labour market outcomes across countries (OECD, 2004[60]; OECD, 2012[61]). This suggests that a comprehensive discussion of centralised versus decentralised systems needs to go beyond the bargaining level as the sole variable of interest, and instead address the full complexity of bargaining structures.

Since the late 1980s, several reforms promoted the decentralisation of collective bargaining in many OECD countries, i.e. gave more space to negotiations at the level of the company, the establishment or the workplace. Decentralisation typically occurred in two ways: either directly through a replacement of national/sectoral agreements by enterprise agreements, or through a process of articulation/devolution within the national/sectoral agreements (Visser, 2016[47]) allowing firm-level agreements to negotiate wage and working conditions within a general framework negotiated at higher level. Traxler (1995[62]) first coined these configurations as respectively "disorganised decentralisation" and "organised decentralisation".

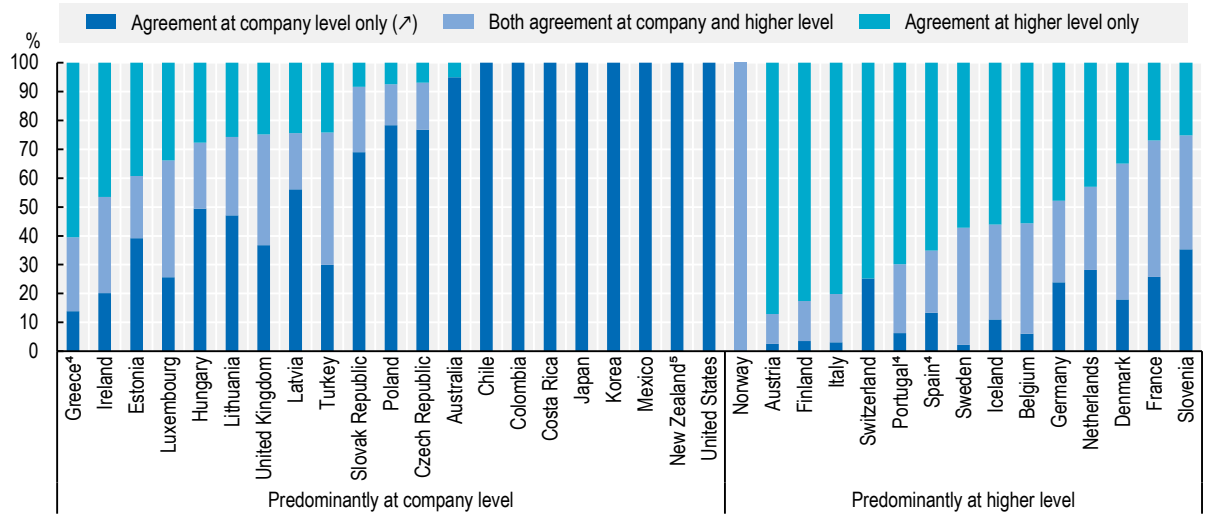
Organised decentralisation (or controlled form of decentralised collective bargaining) takes two main forms in European countries (Ibsen and Keune, 2018[63]). In a first case, national or sectoral agreements define the broad framework but leave large scope for bargaining at the firm/establishment level (notably in Scandinavian countries or the Netherlands): sectors can either set *minimum* or *standard* terms of employment which employers can complement or deviate from at firm level; or allow workers and employers to choose "*à la carte*" and trade-off, if they want, wages against working conditions. A second form of organised decentralisation is the one where national or sector agreements allow and define the conditions for deviations at lower levels via the so-called opening or opt-out clauses (Germany is probably the most notable example). However in other countries, formal regulatory changes in the bargaining structure have not resulted in a real shift of power[33] to the firm level but rather in two-tier bargaining structures (Boeri, 2014[64]): in this case higher-level agreements still dominate, leaving to firm-level bargaining only the possibility to improve the standards set in national or sectoral level ("*in melius*") agreements, firm-level agreements being subject to the "favourability principle" which states that a lower-level agreement can only take precedence over a higher-level agreement if it improves the terms of employment for workers.

Figure 2.13 provides a first suggestive overview of bargaining levels across OECD countries. Sector or industry level bargaining continues to dominate in most continental Western European countries, while in Canada, Chile, Ireland, Japan, Korea, Mexico, Turkey, New Zealand, the United Kingdom, the United States, most Central and Eastern European countries, as well as the three OECD accession countries, bargaining predominantly takes place at firm or enterprise level. In Belgium, Finland (until 2015) and Norway, national unions and employer organisations engage predominantly in cross-sectoral bargaining at central level but, even if not always well reflected in the data, also at sectoral and company level. Finally, Israel, Luxembourg and the Slovak Republic are mixed cases with an almost equal combination of sectoral and firm-level negotiations.[34]

While the predominant level of bargaining allows for a rapid characterisation of collective bargaining systems across OECD countries, it also risks conveying an overly simplistic picture. Figure 2.13 clearly shows that countries with the same predominant level of bargaining differ substantially in terms of their actual structure: even in countries where sectoral bargaining is the predominant level, firm level bargaining can have a very significant role and vice versa.

Figure 2.13. Detailed bargaining level

Percentage of employees covered by a collective agreement[1] in the private sector,[2] 2013 or latest year available[3]



Note: Countries are ordered by ascending order of the proportion of employees covered by agreement taking place at the company level and company and higher level for each predominant level of collective bargaining. Collective agreements are only at company level in Chile, Colombia, Costa Rica, Japan, Korea, Mexico and the United States.

1. Statistics based on the Structure of Earnings Survey (Norway and Switzerland) refer to the type of pay agreement covering at least 50% of the employees. This could be explained why data reported for Norway do not reflect the two-tiered bargaining system based on a hierarchical system (i.e. basic agreement covering several industries/sectors sector agreement and company level agreement). Statistics based on the third European Company Survey (all other European countries) refer to employees in firms with at least ten employees.

2. Data for Australia include employees of the public sector and relates to the federal enterprise agreement system only.

3. 2014 for Norway and Switzerland; June 2014 for Chile; 2015 for Australia; and 2015-16 for New Zealand.

4. Greece, Spain and Portugal undertook deep reforms of their collective bargaining systems around the year of observation of the data (see Box 2.4). The figures may therefore reflect a mix of the legacy of the previous system and the early effects of the new one.

5. Ten percent of private sector collective agreements in 2016 were multi-employer collective agreements. While such agreements are not sectoral or industry collectives, they do represent agreements that are with more than one company.

Source: OECD calculations based on the third Eurofound European Company Survey (ECS 2013) for all European countries except Norway and Switzerland, the Structure of Earnings Survey 2014 (SES 2014) for Norway and Switzerland, the Workplace Agreements Database for Australia, administrative data from the Labour Department of the Ministry of Labour for Chile and Bargaining Trends & Employment Law Update 2015/2016 for New Zealand and OECD questionnaires for Colombia, Costa Rica, Japan, Korea, Mexico and the United States.

StatLink http://dx.doi.org/10.1787/888934027114

A critical element which defines the hierarchy between bargaining levels and the difference among systems is the existence of the so-called "favourability principle" which states that lower-level agreements can only improve the standards set in higher level agreements.[35] In most continental European countries (e.g. Austria, Belgium, Germany, Italy, etc.), the favourability principle has traditionally applied and in practice continues to be the rule (Table 2.4 and detailed tables available online[36]).[37] In the Scandinavian countries, Hungary, Korea, Latvia and the Netherlands, it is left to the negotiating parties which are then free to set lower standards if necessary. The 2012 reform in Spain, and to a lesser extent with a series of reforms starting in the 1980s in France, particularly in 2004 and 2008, the favourability principle has been inverted, i.e. giving precedence to firm-level agreements (in France, this is limited to specific topics as working time). In Greece, the favourability principle was abolished in 2012 following the adjustment programme that reversed the hierarchy of agreements (since, it has been reintroduced in September 2018). In all other countries with single-level bargaining, it does not apply (e.g. Australia,[38] Canada,[39] Chile, Colombia, Costa Rica, Japan and the United States).

Table 2.4. Use of the favourability principle, 2018

Favourability principle always applies	Application of the favourability principle is entirely a matter for the bargainers	Favourability principle does not apply
Austria	Denmark	Greece[2]
Belgium	Finland	Spain
Czech Republic	France[1]	
Estonia	Hungary	
Germany	Korea	
Ireland	Latvia	
Israel	Netherlands	
Italy	Norway	
Mexico	Portugal	
Poland	Sweden	
Slovak Republic		
Slovenia		
Switzerland		

1. On wage, occupations, complementary social security and training funds, the use of fixed-term contracts (temporary and project work), gender equality, trial period and transfer of work between two companies the favourability principle always applies.
2. Until September 2018.
Note: Favourability principle is not relevant for the following countries: Australia, Canada, Chile, Colombia, Costa Rica, Iceland, Japan, Lithuania, Luxembourg, New Zealand, Turkey, the United Kingdom and the United States.
Source: OECD Policy Questionnaires.

Derogations and opt-out clauses

A second key element which can differentiate countries with the same predominant level of agreement is the use of deviations practices. Controlled forms of derogations have been one of the main factors in the shift of collective bargaining away from centralisation towards an "organised decentralisation" in some European countries over the last two decades. Temporary opening clauses have become rather popular during the crisis (Eurofound, 2015[65]; Visser, 2016[47]), following the German practice which allowed firms, together with other tools such as short-time working schemes, to better adapt to the deep crisis of 2008-09 (Dustmann et al., 2014[66]).

As shown in Table 2.5, in most European countries agreements at firm level can deviate from the terms set in the collective agreements. In a third of OECD countries, agreements can also deviate from the standards set in law, most often to make variations to working-time arrangements (when comparing countries, however, one should consider that in some countries there is hardly any law from which to deviate, for instance where most of labour regulations are fixed by collective agreements, while in other countries the labour code is very detailed). Deviations from higher-level agreements can be distinguished in general opening clauses[40] and temporary opt-out clauses (also called hardship clauses, or inability-to-pay clauses). General opening clauses allow firm-level agreements to deviate from the minima or the standards set in higher-level agreements (for instance to decrease collectively-agreed wage floors, increase working time or change work organisation). Temporary opt-out clauses allow the suspension (or renegotiation) of the terms of agreements (even firm-level agreements) in cases of economic difficulties. In most countries general opening clauses and temporary opt-out clauses are subject to the rules and procedures specified in higher-level agreements by social partners themselves and to an agreement at firm level. Finally, in some cases (e.g. Spain) derogations can be obtained without union involvement if no agreement is reached with worker representatives by referring the matter to an external tripartite body.

Table 2.5. Scope and actual use of derogations and opt-out, 2018

	Derogations from the law		Derogations/opt-out from higher level agreements
Common	-		Austria
			Germany[1]
			Greece[1,2]
			Netherlands[1]
			Spain[1]
			Switzerland[1]
Limited	Austria		Belgium
	Belgium		Finland
	Estonia		France[1]
	Finland*		Hungary
	Germany		Iceland
	Hungary		Italy
	Japan		Ireland[1]
	Netherlands		Lithuania[1]
	Norway		Poland[1]
	Slovenia		Portugal[1]
	Sweden		Slovenia[1]
No derogations	Australia	Latvia	Canada
	Canada	Lithuania	Chile
	Chile	Luxembourg	Czech Republic
	Colombia	Mexico	Denmark
	Costa Rica	New Zealand	Estonia
	Czech Republic	Poland	Israel
	Denmark	Portugal	Latvia
	France	Slovak Republic	Luxembourg
	Greece	Spain	Norway
	Iceland	Switzerland	Slovak Republic
	Ireland	Turkey	Sweden
	Israel	United Kingdom	Turkey
	Italy	United States	United Kingdom
	Korea		

1. Derogations possible in case of economic difficulties (referred in the text as opt-out). In Switzerland the information refers to the manufacturing sector.
2. Until September 2018.
Note: Derogations/opt-out from higher-level agreements not applicable in Australia, Colombia, Costa Rica, Japan, Korea, Mexico, New Zealand and the United States.
Source: OECD Policy Questionnaires.

The use and relevance of permanent or temporary derogations from higher-level agreements is closely linked to the presence of a clear and strict hierarchy between levels of negotiations (as noted in the discussion on the favourability principle) and the use of administrative extensions. Indeed, in countries where there is no favourability principle (or is up to negotiators) and no administrative extensions, such as in Northern European countries, there is no need of derogations since unions and firms are free to negotiate agreements that set lower standards than the sectoral agreement. In Denmark, for instance, nothing limits the possibility of temporarily lowering standards.

Opening clauses are among the main adjustment tools of collective bargaining systems where the hierarchy of agreements is subject to the favourability principle and extensions are used. Indeed, opening clauses – and particularly, temporary hardship clauses – are often referred to as "safety valve" (Visser, 2016[47]) to avoid the "one-size-fit-all" sectoral agreements, notably to adapt to local or specific permanent conditions, or

to respond swiftly to an unexpected shock and keep high the support for wide-reaching collective bargaining systems.[41] However, if not regulated, they can result in a downward competition between firms and even undermine the regulatory capacity of collective agreements. Moreover, if derogations and opt-outs are used only, or mainly, by large firms which have the resources to conclude firm-level agreements and/or to process the paperwork required to request the opt-out and which are often also the most productive, they risk losing their role of "safety valve". Small firms, which may be those most in need of some derogations from the terms set by collective agreements they have not negotiated, most often are not able to make use of derogations and opt-out clauses because they lack the capacity and/or worker representation. In a possibly extreme, but not totally unlikely scenario, large firms may even use opt-outs as an anti-competitive tool by negotiating first relatively generous conditions in sectoral agreements and then opt-out to improve the terms in their favour, leaving competitors bear the brunt of the generous terms they have negotiated.

Opening clauses in higher level agreements were introduced in Germany as a temporary solution,[42] limited first to working time, then from 1995 extended to wages (Brändle, Heinbach and Maier, 2011[67]). Initially only unions could agree to revise the terms of the agreement, but quickly collective agreements also allowed "Pacts for employment and competitiveness" (PECs) with the works councils (with or without formal involvement of a union). These have become increasingly widespread and began being used independently of the specific economic situation (Seifert and Massa-Wirth, 2005[68]). Kohaut and Schnabel (2006[69]), based on data from the IAB Establishment Panel, also report that, in 2005, 13% of establishments and 29% of employees in Germany were covered by a collective agreement with scope for an opening clause. Around half of the involved/concerned establishments (53% in the West, 50% in the East) had made use of such a clause, mostly to modify working-time arrangements, and only one third to change basic pay or annual bonuses. Data from the WSI Works Council Survey (Schulten and Bispinck, 2014[70]) and from the IAB Establishment Panel (Addison, 2016[71]) do not show yet any particular trend over the last ten years, except an uptake during the crisis.

As mentioned before, the 2012 Spanish labour market reform made it easier for firms to opt-out from higher-level agreements and extended the possibility for employers to unilaterally modify wages, working hours and work schedules referring the matter, if disagreement persists, to arbitration by a public tripartite body. In the years until 2015, estimates of the Spanish Labour Ministry show that less than 5% of firms, mainly large ones, have opted-out. Data collected by the Wage Dynamics Network Survey and reported by Izquierdo and Jimeno (2015[72]) show that in 2013, 3.7% of firms opted-out from a sectoral agreement and 1.9% from their own firm-level agreement. Opt-outs were mainly used by large firms opting out from a sectoral agreement (5.9% of firms with more than 200 employees) and even more from their own firm-level agreement (16.6% of firms with more than 200 employees). As SMEs constitute the bulk of the Spanish economy, the use of opt-outs in Spain remains therefore limited. Moreover, since the Spanish reform also facilitated internal flexibility, firms have other adjustment options beyond opting-out from collective agreements. The German experience, moreover, shows that it takes time before firms learn how to make full use of these instruments.

Box 2.4. The reforms of collective bargaining during the crisis

Spain, Portugal, Greece and France passed encompassing labour market reforms during or following the crisis that also changed the way collective bargaining works. All reforms were aimed at strengthening firm-level bargaining and giving more flexibility to employers in case of economic shocks but were, in some cases, partly reverted in the recent years.

In Greece – see ILO (2014[73]) and OECD (2018[74]) for more details – the collective bargaining was completely overhauled during the crisis. The favourability principle was suspended giving priority to firm-level agreements. Moreover, new provisions allowed "associations of persons" (i.e. association of workers, not necessarily affiliated to a union) to sign firm-level agreements on top of trade unions. Extensions of collective agreements to non-signatory firms were also suspended and limits to the duration and the ultra-activity of collective agreements were introduced. Finally, the system of unilateral recourse to arbitration was abolished. Since Greece exited the European Stability Mechanism stability support programme (i.e. the financial support programme set up during the crisis) in September 2018, the favourability principle and the possibility of extending sectoral collective agreements signed by representative parties have been re-introduced. Since September 2018, 12 sectoral or local collective agreements have been extended, covering in total more than 200 000 workers (European Commission, 2019[75]). The unilateral recourse to arbitration has also been re-instated by a Council of State ruling in 2014 but some incentives for a consensual solution have been introduced. The new Greek Government elected in June 2019 has expressed the intention to again limit unilateral appeals to arbitration and the use of extensions as well as to introduce opt-out mechanisms from sectoral agreements.

In Spain – see OECD (2014[76]) for more details and a preliminary review – the 2012 reform inverted the favourability principle giving priority to firm-level agreements over those at sectoral or regional level. The reform also made it easier for firms to opt-out from higher-level agreements or firm-level agreements either upon an agreement with worker representatives or by unilaterally referring the matter to arbitration by a public tripartite body. For the time being, Spanish firms do not appear to have made a significant use of these new provisions.

In Portugal – see OECD (2017[45]) for more details and a preliminary review – successive reforms between 2011 and 2015 initially froze extensions of collective agreements and then granted them only if the signing employer organisations met certain criteria. The duration and ultra-activity of collective agreements was reduced. Works councils in firms with at least 150 employees (down from 500) were allowed to negotiate firm-level agreements upon a mandate from unions and a possibility was introduced for employers to temporarily suspend a collective agreement in case of crisis. Since 2015, these reforms have been partly reversed: in 2017 a tripartite pact removed the representativeness criteria for extensions and set a limit of 35 days for their issuance to avoid the usual and long pre-reform delays. Limits to ultra-activity were suspended for 18 months between 2017 and 2018 to create stability for negotiating a tripartite agreement to amend the Labour Code. Sectoral bargaining has now resumed. By contrast, despite the new provisions that are still valid, there has been a very limited take-up on the possibility to negotiate at company level.

In France – see Carcillo et al. (2019[77]) for more details and a preliminary review – two main reforms took place in the recent years. In 2016, the Labour Law (*Loi El Khomri*) strengthened the role of firm-level agreements in defining working time, leave and rest period. It also increased the threshold to define which trade unions are representative and allowed to sign firm-level agreements and introduced the possibility of approving the agreements via an internal referendum. Opt-out clauses in case of economic difficulties, with the objective of safeguarding employment have also been introduced (but not on wages). In 2018 the Law ratifying the September 2017 *Ordonnances* went further to promote firm-level bargaining by allowing negotiations even in the absence of a union in firms with less than 50

employees. Moreover, in companies with less than 20 employees the employer can submit a proposal of agreement directly to an internal referendum. The reform also sought to make extensions of sectoral agreements less automatic by conditioning them to the presence of different provisions by firm size and by introducing the possibility to block them out of public interest considerations (in particular, if an agreement is used as an anticompetitive tool against non-signatory companies) based on the evaluation of an *ad hoc* experts group. Two years after the *Ordonnances*, however, no request of extension has been refused and no agreement has included different provisions for large and small firms. The *Ordonnances* reform also merged and streamlined different firm-level workers' representation bodies into a single one with the goal to simplify dialogue at firm level.

2.5.2. Co-ordination, enforceability and the quality of labour relations

Co-ordination

Co-ordination is the other key pillar of collective bargaining systems. Co-ordination refers to the "degree to which minor players deliberately follow what major players decide" (Kenworthy, 2001[78]; Visser, 2016[47]). Co-ordination can happen between bargaining units at different levels (for instance when sectoral or firm-level agreements follow the guidelines fixed by peak-level organisations or by a social pact) or between units at the same level (for instance when some sectors or companies follow the standards set in another sector/company).

Many studies have found in different co-ordination practices a main factor behind wage developments and macro flexibility, namely the ability of the economy to adjust to macroeconomic shocks (Soskice, 1990[79]; Nickell, 1997[80]; OECD, 1997[81]; OECD, 2004[60]; OECD, 2012[61]; Blanchard and Wolfers, 2000[82]). While conceptually different, co-ordination and centralisation can be thought of as two different ways to reach the same objective, and strong co-ordination has been found to be a functional equivalent of centralisation in some cases (Soskice, 1990[79]; Traxler, 1995[62]; Teulings and Hartog, 2009[83]). However, co-ordination can also ensure that either organised, but also disorganised decentralisation does not result in totally independent and atomised negotiations and allow for a certain degree of synchronisation of different bargaining units when setting their strategy and targets. Co-ordination can play a particularly important role at the macroeconomic level as a critical tool to strengthen the resilience of labour markets by increasing the responsiveness of real wages to changes in macroeconomic conditions (OECD, 2012[84]; IMF, 2016[85]; OECD, 2017[86]). But co-ordination can be a key instrument in pushing up wages when needed. Co-ordination is also important to ensure that the competitiveness of the export sector in a country is not endangered by what is negotiated in the non-tradable sector which does not suffer from international competition but is often a critical input for the tradable sector.

Wage co-ordination takes different forms across OECD countries. Table 2.6 presents the degree and mode of co-ordination among OECD countries. It follows Kenworthy (2001[78]) and Visser (2016[47]) by distinguishing between the *mode* of co-ordination (state-imposed, pattern bargaining, etc.) and the *degree* of co-ordination (whether pervasive and binding or not). Co-ordination is strongest when it is based on strict statutory controls (this is called *state-imposed* co-ordination, and it occurs via indexation rules, binding minimum wages and/or rules for maximum uprates). Currently only Belgium falls in this category: wages are indexed to increases in living costs but capped by a "wage norm" which takes into account (weighted) wage developments in France, Germany and the Netherlands on top of a statutory minimum wage negotiated between social partners. Until 2015, Finland was the country closest to Belgium since central agreements played an important role in guiding what lower-level agreements could negotiate (*state-induced* co-ordination). In France, the relatively high minimum wage also severely restricts the room of manoeuvre of social partners and renders many wage floors irrelevant (Fougère, Gautier and Roux, 2018[87]). In Nordic countries, as well as in Austria, Germany and the Netherlands co-ordination takes the form of the so-called *pattern bargaining* where a sector sets the targets first (usually the manufacturing

sector exposed to international trade) and others (or at least some of them) follow. Pattern bargaining also takes place in Japan where collective agreements are negotiated only at company level (see Box 2.5 for more details). Finally, co-ordination can also take the form of inter- or intra-associational guidelines where peak level organisations either set some norms or define an intra-associational objective that should be followed when bargaining at lower levels. This takes place more or less formally in several countries but it is usually binding only in countries where peak level trade unions or employer organisations are relatively strong and centralised (typically Nordic countries and to a significantly lower extent France and Italy). In most Central and Eastern European countries, OECD accession countries and other decentralised systems, bargaining systems are uncoordinated.

Table 2.6. Forms of co-ordination across OECD countries, 2018

		Mode of co-ordination		
		Pattern bargaining	State imposed/induced	Inter/Intra-associational
Degree of co-ordination	Strong	Austria Denmark Finland Germany Japan Netherlands Norway Sweden	Belgium	Austria Finland Japan Netherlands Norway Sweden Switzerland
	Limited		France	France Iceland Italy Portugal Slovenia Spain

Note: Forms of co-ordination are not relevant for the following countries: Australia, Canada, Chile, Colombia, Costa Rica, the Czech Republic, Estonia, Greece, Hungary, Ireland, Israel, Korea, Latvia, Lithuania, Luxembourg, Mexico, New Zealand, Poland, the Slovak Republic, Turkey, the United Kingdom and the United States.
Source: OECD Policy Questionnaires.

Box 2.5. Wage co-ordination in a decentralised system: The Japanese *Shunto* or Spring Offensive

Collective bargaining in Japan is highly decentralised: most of the bargaining takes place at the company level without national or sectoral agreements. Yet, a co-ordination mechanism for wage bargaining is launched every spring by the peak unions to supplement the limitations of bargaining power of firm-levels unions. This co-ordination system, called *Shunto* (the trade unions' nation-wide Spring Offensive), is entirely left to the social partners.

Introduced in 1955 by one of the major national trade unions in a context of weak, fragmented and highly politicised unions, over time *Shunto* became the quintessential example of integration and synchronisation in wage bargaining in combining pragmatism, flexibility and efficiency. Annual negotiations for wage increases on a national scale are given a precise framework through separate internal co-ordination by both unions and employer organisation (Togaki, 1986[88]; Shirai, 1987[89]). The co-ordination mechanism takes place both within and across sectors. Typically, the negotiations with large companies start in winter, when Rengo, the national Japanese trade union confederation, sets the intra-associational guidelines with wage increase target to be further specified by each sectoral level trade union federations. Taking this minimum wage increase as a benchmark, firm-level unions negotiate over wages, bonuses and working conditions. Parallel efforts to co-ordinate the bargaining policy of employers are also made by employer organisations and the major enterprises, ensuring a large convergence with unions' requests.

The importance of information sharing for a co-operative relationship between unions and employers and efficient negotiation process was pointed out by Morishima (1991[90]) as a critical ingredient of success of the Shunto system over time. For instance, following the 1973 oil crisis, the national trade union centre changed strategy drastically after heated management-labour discussions, and decided to self-restrain wage increases to prevent causing hyperinflation. A similar pragmatism was observed in 2001, after the ICT bubble crisis in Japan, as national-level social partners jointly declared that unions would restrain their requests to allow employers to preserve jobs. More recently, unions compromised on the wage increases with employers in exchange for employment protections (2% wage increases in 2016). Some observers have argued however that this wage moderation policy may have led to a weakening of unions' bargaining power during the Lost Decades. Moreover, Kato (2016[91]) suggests that in recent decades wages started to fall behind productivity growth and Shunto has become less relevant, losing in part its efficacy in synchronising wage negotiations.

Source: This box was prepared in collaboration with Yoshie Shigiya.

Enforcement of collective agreements and the quality of labour relations

The ability of the employer organisations and trade unions to control the behaviour of their constituency at lower levels is key for ensuring that decisions taken at higher levels are actually reflected at lower levels and effectively implemented. Co-ordination and centralisation without compliance and enforcement are simply ineffective (Nickell and Layard, 1999[92]; Traxler, 2003[93]). The evidence discussed in Box 2.6 shows that, for countries where estimates are available, even compliance to the lowest levels of the negotiated wage floors is far from perfect.

Box 2.6. Compliance and enforcement of collective agreements

Primarily a legal issue, the actual level of enforcement of the standards set by collective agreements is critical to judge the effectiveness of the bargaining systems, notably in terms of fairness for workers and level-playing field for firms. However, available empirical evidence on compliance to labour market regulations is quite scarce and almost inexistent for collective bargaining. In fact, measuring the extent of non-compliance is very difficult to do in a practical way, given data limitations and measurement error. Garnero, Kampelmann and Rycx (2015[94]) provide a first estimate of non-compliance to wage floors fixed by collective agreements in seven European countries. They find that on average in 2007-09, the share of workers paid less than the negotiated wage floors was 13% in Italy, 8% in Germany, 4% in Austria and Belgium, and around 2% in Finland and Denmark.

More recent estimates on the incidence and depth of non-compliance to minimum wages fixed by collective agreements in Italy between 2008 and 2015 using a range of survey and administrative data are provided by Garnero (2018[95]). He finds that non-compliance is indeed non-negligible: on average, using Labour Force Survey data, around 10% of workers in the country are paid one fifth less than the reference hourly wage floor (7% using data declared by employers themselves in the Structure of Earnings Survey which however excludes micro firms and the agriculture sector; and 2.7% using social security data which however are unlikely to report non-compliance as they are based on official company records and limited to monthly wages, therefore not considering extra unpaid time, and to full-time full-month employees only). Not surprisingly, all data sources show that non-compliance is particularly high in the south of Italy and in micro and small firms and it affects especially women and temporary workers. Moreover, all data sources show that wages in the bottom of the distribution in Italy appear to be largely unaffected by wage floor increases. The exact estimates vary according to the data used but all show that non-compliance significant and pervasive.

In addition to more effective labour inspections, Garnero (2018[95]) suggests a series of relatively cost-free tools for improving compliance to negotiated wage floors, and to the terms of collective agreements more in general. In countries where the number of collective agreements is very high, a smaller number of collective agreements and minimum wages would make the system more transparent for both employers and workers. Where it is not the case, ensuring that agreements are signed by representative unions and employer organisations is key to avoid that complacent, poorly representative social partners or "yellow" unions (unions dominated or heavily influenced by an employer) undermine existing standards.

Making the text of collective agreements and a summary of its main elements publicly and easily available is an essential precondition to ensure that workers and employers are well informed about their rights and duties. In most countries it is difficult to get access to the text of collective agreements. Finally, awareness and "name and shame" campaigns have been proven quite effective in increasing compliance with the statutory minimum wage in Costa Rica (Gindling, Mossaad and Trejos, 2015[96]) and the United Kingdom (Benassi, 2011[97]) and could be used as a relatively cost-effective tool also in the case of collective agreements.

There are no comparable indicators on the level of enforcement across countries. However, the capacity of enforcement of each system – sometimes also referred to as "governability" – see Traxler (2003[93]); and OECD (2004[60])[43] – is likely to be related to the functioning of collective bargaining, historical developments and overall trust among social partners (Table 2.7). The "enforceability" of agreements can also be fostered by regulating industrial actions with "peace clauses" ruling that unions which have signed an agreement, and their members, cannot lawfully strike on issues regulated in the agreement). In some countries peace clauses are not or rarely used (for instance, Belgium and France, Mexico, Chile) on the

grounds that a peace obligation would interfere with the right to strike. In other countries (e.g. Italy and Spain), peace clauses are common but given that the strike is an individual right, workers can always strike as the agreement is binding only for the collective signatory parties. Therefore, even a small group of workers is enough to limit the enforcement of the agreement undermining the governability of the system. In other countries (typically the Nordic countries) peace clauses are used and enforced thanks to the strong role of unions and relatively high level of trust between and in social partners.

Mediation and arbitration procedures can also play a significant role in smoothing conflicts and helping finding an agreement within the framework of collective bargaining and therefore contribute to strengthen the overall governability of the system. Mediation and arbitration procedures in sectoral and firm-level agreements are present in about half of OECD countries and in around two-thirds of the cases a mediation procedure is compulsory. In other countries, for instance in Norway, mediation mechanisms exist outside the agreements. The Norwegian National Mediator mediates in conflicts of interests between employer and employee organisations, i.e. when the negotiations on renewal or establishment of an agreement have broken down. The purpose of mediation is to avoid work conflict which, in fact, cannot legally be started before mediation has been tried. The Labour Court of Norway is a special court for resolving labour disputes concerning the interpretation, validity and existence of collective agreements, cases of breach of collective agreements and the peace obligation and cases of claims for damages arising from such breaches and unlawful industrial action.

Table 2.7. The enforceability of collective agreements, 2018

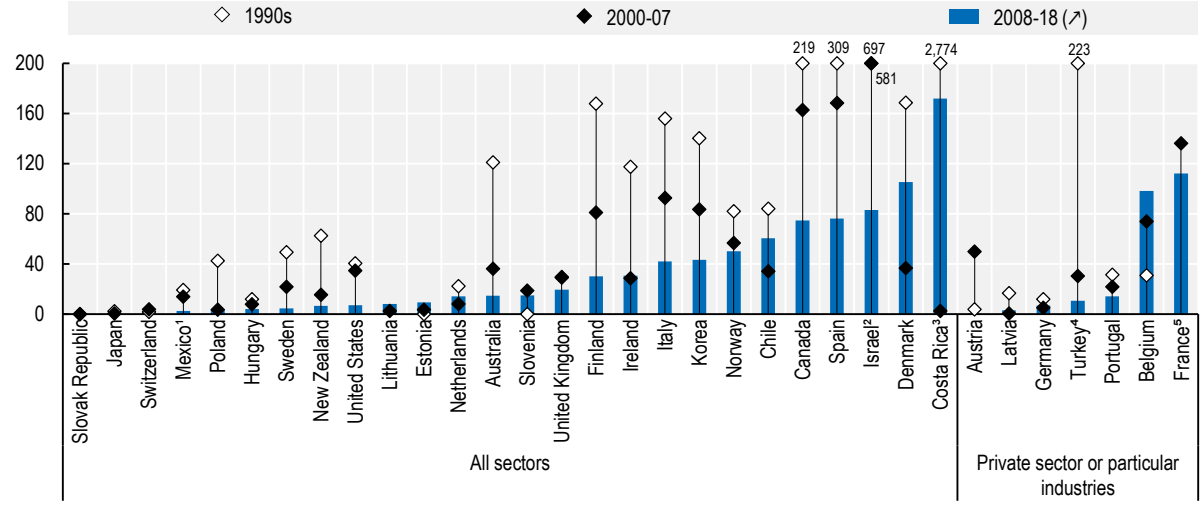
		Sectoral agreements			
		Nothing or not applicable	Peace clause	Mediation	Both
Firm-level agreements	Nothing	Canada (AB) Japan Korea Slovak Republic		Austria[1] Slovenia	Denmark[1] Latvia[1]
	Peace clause	Japan	Iceland Luxembourg Norway		Estonia Greece[1] Lithuania[1] Netherlands Switzerland
	Mediation	Australia Chile Colombia[1] United Kingdom		Czech Republic France Hungary Mexico Portugal	
	Both	Canada (BC[1], ON[1] and QC) Costa Rica New Zealand Turkey United States[1]		Ireland1	Australia Belgium[1] Finland Germany Israel[1] Italy[1] Spain[1] Sweden[1]

Note: AB: Alberta; BC: British Columbia; ON: Ontario; QC: Québec.
1. Compulsory mediation.
Source: OECD Policy Questionnaires.

Figure 2.14 shows the trends in industrial disputes (strikes and lock-outs) across OECD countries. Data should be interpreted however with caution as the number of strikes is likely to be affected by how they are regulated at national level and may thus not reflect the actual level of strife in the workplace. Furthermore, existing statistics are plagued by considerable differences in definitions and measurement which severely limit the comparability of the data (see note under Figure 2.14 and, for further details, see detailed tables available online[44]). Notwithstanding these caveats, Figure 2.14 shows that industrial disputes as well as the degree of variation across countries have gone down considerably since the 1990s (a notable exception is Belgium where days lost because of strikes have steadily increased since the 1990s).

Figure 2.14. Trends in industrial disputes

Annual averages of work days lost per 1 000 salaried employees



Note: International comparability of data on strikes is affected by differences in definitions and measurement. Many countries exclude from their official records small work stoppages, and use different thresholds relating to the number of workers involved and/or the number of days lost. Strikes statistics in some countries may also exclude stoppages in particular industries, such as the public sector (as in Austria, Belgium, France, Germany, Latvia, Portugal and Turkey) or of a particular type, such as political and unauthorised strikes (as in Chile, Costa Rica, Estonia, Hungary, Israel, Korea, Latvia, Lithuania, Mexico, Turkey, the United Kingdom and the United States). Conversely, some countries may include workers indirectly involved (i.e. those who are unable to work because others at their workplace are on strike) as in Costa Rica, Denmark, Estonia, Finland, France, Hungary, Ireland, Lithuania, the Netherlands, New Zealand, Poland, the Slovak Republic, Switzerland, Turkey, the United Kingdom and the United States or work stoppages caused by the shortage of materials supplied by firms involved in strike. In general, forms of industrial action that do not involve full-work stoppages, such as "go-slows", silent and other protests in the workplace are not included. For further details, see online annex at http://www.oecd.org/employment/collective-bargaining.htm.

2008-18 refers to 2008 only for Italy (this indicator is no longer available for this country), 2012 only for Slovenia, 2008-15 for Turkey, 2008-17 for Chile, Costa Rica, France, New Zealand, Portugal and the Slovak Republic.

1. The statistics concern strikes at establishments and enterprises covered by federal jurisdiction. As a result, strikes at enterprises under local jurisdiction are not included.

2. The ratio reached 581 and 697 work days lost per 1 000 salaried employees in the 1990's and in 2000-07, respectively.

3. Average in 2008-18 is mainly driven by a strike in 2014 taking place in the Ministry of Education and involving 75 000 workers during 29 days. The annual average set at 34 days lost per 1 000 employees otherwise.

4. The following branches of economic activity or sectors are excluded: life or property saving, funeral and mortuary, production, refining and distribution of city water, electricity, natural gas and petroleum as well as petrochemical works, production of which starts from naphtha or natural gas; banking services; in workplaces operated directly by the Ministry of National Defence, General Command of Gendarmerie and Coast Guard Command, firefighting and urban public transportation services carried out by public institutions and in hospitals.

5. Due to a major break in series, data prior to 2005 are not reported in this Chart.

Source: ILOSTAT and national statistical offices for working days not worked and OECD Annual Labour Force Statistics Database and national statistical offices for total number of employees.

StatLink http://dx.doi.org/10.1787/888934027133

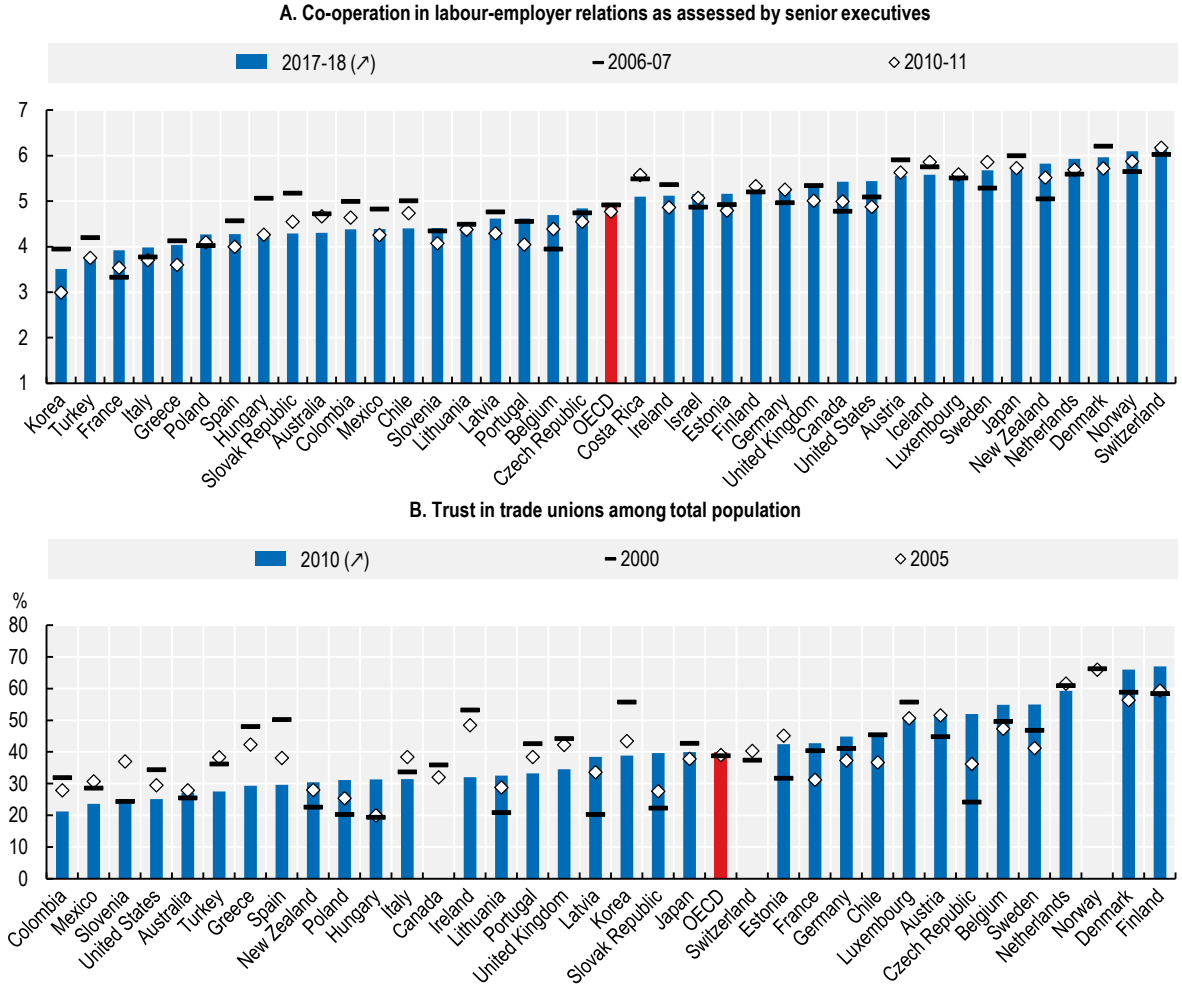
Since Blanchard and Philippon (2004[98]) tried to establish a link between conflictual labour relations and high unemployment, there has been an increasing focus on the quality of labour relations and trust among social partners. Blanchard et al. (2004[98]) argued that "*trust appears to be just as important in bringing macro flexibility as the structure of collective bargaining*" as the effectiveness of co-ordination, in particular, is likely to be closely linked to relatively peaceful and co-operative industrial relations. IMF (2016[85]) shows that unemployment rose less following the global financial crisis in those countries where trust was high.

Panel A in Figure 2.15 shows the degree of co-operation in labour relations as assessed by senior business executives in a survey published by the World Economic Forum. Among OECD countries, managers consider labour relations most co-operative in Switzerland and least co-operative in Korea. The degree of perceived co-operation appears to have been largely unaffected by the crisis: if anything, labour relations have slightly deteriorated in countries where they were already relatively poorer.

The trust that citizens have in unions also varies considerably across countries (data on trust in employer organisations are not available) and is correlated with the national level of trust in institutions more generally. In 2010 on average, 40% of respondents across OECD countries declare that they trust trade unions, but the share of people trusting unions varies from 65% in Finland and Denmark to 25% in the United States, Slovenia and Mexico. Between 2000 and 2010 trust in unions has increased markedly in Central and Eastern European countries where it was initially very low while it has decreased quite significantly in countries that have been deeply hit by the crisis, Greece, Ireland and Spain.

The quality of labour relations as assessed by senior executives and the degree of trust in trade unions by the general population are positively, yet not perfectly, correlated. In some countries, such as France, executives report a low quality of labour relations, but trust in unions is higher than average (a similar gap is found also in Korea, ranked among the lowest by executives and close to the OECD average by people). The opposite case is found in the United States, where executives consider labour relations well above the OECD average, while only 25% people declare that they trust unions.

Figure 2.15. Quality of labour relations



Note: Statistics shown in Panel A refer to the average weighted national score based on a scale from one ("generally confrontational") to seven ("generally co-operative") to the following question: "In your country, how would you characterise labour-employer relations?" In Panel B, the statistics refer to the share of persons tending to trust trade unions for the European countries (not including Norway and Switzerland) and the share of persons who are greatly or quit a lot confident in trade unions for all other countries (including Norway and Switzerland). OECD is the unweighted average of OECD countries shown (not including Canada, Colombia, Iceland, Israel, Norway and Switzerland in Panel B).
Source: Panel A: The Global Competitiveness Index Historical Dataset © 2005-2014 and © 2007-2017 World Economic Forum. Panel B: Eurobarometer for all European countries (not including Norway and Switzerland) and World Value Survey (http://www.worldvaluessurvey.org/WVSOnline.jsp) for all other countries (including Norway and Switzerland).

StatLink http://dx.doi.org/10.1787/888934027152

The quality of labour relations and trust in unions, in line with the findings by Blanchard and Philippon (2004[98]), are found to be negatively correlated with the unemployment rate and with earnings inequality: on average across OECD countries, higher trust goes hand in hand (but the direction of the causality is not clear) with lower unemployment and lower earnings inequality[45] – see Annex Table 4.A1.1 in OECD (2017[7]).

The level of co-operation and trust is the result of decades of history and is deeply rooted into broader societal and cultural factors. The evidence on the issue is very limited-see Addison (2016[71]) for a summary, but some of the features of collective bargaining systems themselves can help promoting more co-operative relations.

Fragmented and poorly representative social partners are likely to be less inclusive and increase the level of strife. Therefore promoting co-operation between social partners (or at least not incentivising excessive competition) could have a positive effect on the quality of labour relations. More in general co-operation in a range of areas, involvement in committees, reforms, and institutions at higher levels, together with employee involvement and co-operation at the firm level can help building trust and a common understanding of challenges, solutions, and positions. Moreover, objective criteria, in particular with respect to opt out and extension requests, the availability of accurate information on the representativeness of social partners and the presence of an independent body to mediate and settle disagreements, can also contribute to improve labour relations. Hijzen et al. (2019[58]) also suggest that incentives for regular renegotiation might enhance trust (unless they force the conclusion of an agreement when there is no shared willingness to reach it). Mechanisms that ensure the actual enforcement of the terms of collective agreements (see Box 2.6) are also likely to strengthen the accountability of social partners and therefore reciprocal trust. Finally, institutional stability usually helps social partners by creating shared and mutual expectations (Brandl and Ibsen, 2016[99]). Repeated piecemeal reforms are likely to increase adaptation costs and shorten the outlook over which social partners plan their negotiation strategies. Generally, ensuring the autonomy of social partners is likely to enhance trust between them.

2.6. Workers' voice at workplace and company level

Beyond collective bargaining, countries also vary when it comes to the presence and role of various forms of workers' voice arrangements organising the collective expression of workers' interests at workplace or company level. Voice is made of the various institutionalised forms of communication between workers and managers that offer an alternative to exit (i.e. dissatisfied employees quitting) in addressing collective problems. Voice provides employees with an opportunity to solve issues emerging in the workplace through communication with management (Willman, Gomez and Bryson, 2009[100]). The need for workers' voice is described as inherent to working life (Gomez, Bryson and Willman, 2010[101]). Box 2.7 delves into the influence of various workers' voice arrangements on the "voice vs. exit" behaviour of workers, comparing the cases of France and the United Kingdom.

Voice is often mediated through representative institutions (in this report referred to as "representative voice"), such as local trade union representatives (either appointed by the trade union or elected by the employees), works councils (established bodies elected or appointed by all employees in a firm, irrespective of their membership of a trade union),[46] or workers representatives (either union members or independent). The prerogatives of the representative entities differ largely across OECD countries, ranging from information, to consultation and co-determination (De Spiegelaere et al., 2019[102]). This variation in the rights granted to structure of representative voice means that apparently similar institutions are likely to yield different results in different legal contexts.[47]

In most OECD countries, several representative institutions can cohabit in one workplace. This often depends on the firm's size and related legal thresholds above which representation is mandatory. In several OECD countries bodies/councils dedicated to occupational health and safety issues are also present in the workplace. Until a 2017 reform, firms with more than 50 employees in France combined a works council (*comité d'entreprise)*, union representatives (*délégué syndical* and/or *représentant de la section syndicale),* worker representatives (*délégué du personnel)* and a relatively powerful health and safety committee – see Askenazy and Breda (2019[103]) for more details. The 2017 reform (*Ordonnances)* merged these bodies in a single one, the *Comité Social et Économique*. Table 2.9 shows the diversity of situations across OECD countries. In Austria, Germany, Luxembourg, the Netherlands and Switzerland, works councils are the sole eligible employee representative structure; this does not however prevent unions from playing any role, as they often have reserved seats in the works councils. In Canada, the United States, Sweden or Turkey trade unions are the sole representative body.

Box 2.7. Voice or exit? The role of employees' expression and representation in the workplace

Workers, when not satisfied with their working conditions, have essentially two main options: *exit* (i.e. quit their job); or, *voice* their concerns (Hirschman, 1972[104]). Freeman and Medoff (1984[105]) brought some evidence that unions, by giving employees the opportunity to express their concerns and improve their situation, contribute to reduce voluntary quits, ultimately reducing labour turnover – even if the process of reaching resolutions may be conflictual and disruptive. This may thus benefit not only workers, but also firms, as lower turnover and longer tenure can reduce hiring and training costs and increase productivity.

Amossé and Forth (2016[106]) have recently tested the "exit-voice" dichotomy using comparable establishment surveys for France (REPONSE) and Great Britain (WERS). They assess if Britain is an "exit" country and France a "voice" one, given their respective historical differences in the degree of regulation and influence of the unions (while trade union density is lower in France, union representatives at the workplace level are much more prevalent). They also test if the presence of a union representatives in the workplace or arrangements for direct voice reduce quits and contribute to an increase in collective disputes.

Table 2.8. Association between on-site union representation and direct voice and quits and collective disputes in 2011

	Average		Net effect of union representative		Net effect of direct voice arrangements[1]	
	in Britain	in France	in Britain	in France	in Britain	in France
Quits (% of employees employed 1 year before)[2]	9.7	3.4	-2.3**	-1.0***	+2.2**	+0.1
Collective disputes (% of workplaces)[3]	1.8	20.5	+4.8*	+18.3***	-0.1	+1.7

, *: statistically significant at the 5 and 1% levels, respectively.
1. Direct voice arrangements include: regular departmental meetings, employee attitude survey, and the use of suggestion schemes.
2. Quits are based on workplaces with 50 or more employees.
3. Collective disputes are based on workplaces with 11 employees or more. In France disputes refer to the last three years; and to the last year in Britain.
Source: Excerpt from Table 3.5 in Amossé and Forth (2016[106]), "Employee Expression and Representation at Work: Voice or Exit?", https://doi.org/10.1057/978-1-137-57419-0_3, based on the establishment surveys WERS and REPONSE.

The results by Amossé and Forth (2016[106]) in Table 2.8 show that, as expected, voluntary quits are on average more frequent in Britain than in France. In both countries the presence of a union representative in the workplace is associated with a lower quit rate, as already found by Bryson and Forth (2010[107]) and Bryson et al. (2013[108]) for Britain. The effect is robust also when controlling for other factors.

This result suggests that unions or worker representatives on site reduce exit by offering stronger collective voice. On the contrary, direct voice arrangements (regular departmental meetings, employee attitude surveys, suggestion schemes) have no statistically significant association with the quit rate in France, while they are positively correlated with quits in Britain. Whilst Freeman and Medoff (1984[105]) suggested that voice may reduce exits, they also recognised that the articulation of voice (typically in

the form of complaints) would be likely to lead to a degree of overt conflict in the workplace, whilst issues were being discussed and resolved.

The establishment data from WERS and REPONSE indicate that disputes in the workplace are much more common in France and that union presence is strongly and positively associated with a more frequent occurrence of collective disputes in both countries (this is also confirmed by managers' subjective rating of the social climate in the workplace as reported in the establishment surveys). Overall thus, the recent analysis by Amossé and Forth (2016[106]) confirms that, at least in the case of France and Great Britain, the presence of a union representative effectively contributes to reduce turnover as suggested by Hirschman (1972[104]) and Freeman and Medoff (1984[105]), but also increases collective disputes.

Table 2.9. Existing forms of representative voice in the workplace, 2018

	Country	
Works council	Austria	
	France	
	Germany	
	Luxembourg	
	Netherlands	
Union or union representatives	Australia	Japan
	Canada	Mexico
	Chile	New Zealand
	Colombia	Sweden
	Costa Rica	Turkey
	Iceland	United States
	Israel	
Both but works council predominant	Hungary	
	Italy	
	Slovak Republic	
	Spain	
	United Kingdom	
Both but union predominant	Belgium	Lithuania
	Czech Republic	Norway
	Denmark	Poland
	Estonia	Portugal
	Finland	Slovenia
	Greece	Switzerland[1]
	Ireland	
	Korea	
	Latvia	

1. In the manufacturing sector.
Note: Non-union worker representatives can be present in Australia, Costa Rica, Finland, France, Greece, Japan, Korean and Latvia.
Source: OECD Policy Questionnaires and Eurofound (2011).

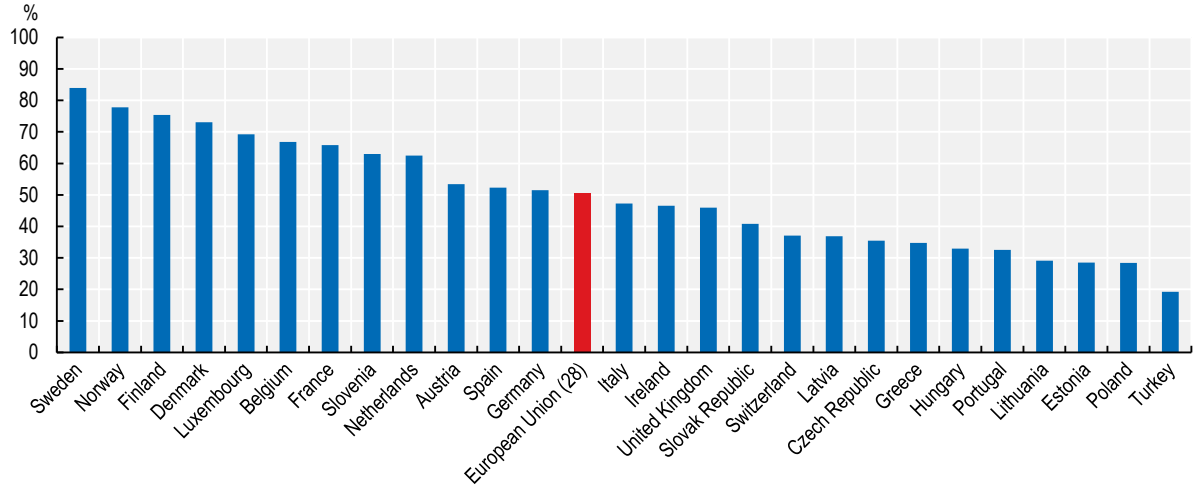
Representative voice can also materialise at *company* level, through employees' and/or trade unions' presence in supervisory and management boards (Gold, 2011[109]; Kleinknecht, 2015[110]).[48] Board-level employee representation is a form of workers' voice that also tends to strengthen workers' bargaining power and potentially enhance co-operative attitudes by allowing workers to engage in the strategic choices of the company (De Spiegelaere et al., 2019[102]).[49] Employees' right to be represented on the board depends on the nature of the company ownership, its size, and its legal status. Again, beyond the

presence of workers' representatives on the board, the latter are also granted varying degrees of rights and prerogatives, which is likely to influence their impact (Conchon, 2011[111]). Among OECD countries (for more details see detailed tables available online[50]), Austria, Denmark, Finland, France, Germany, Hungary, Luxembourg, Netherlands, Norway, Poland, the Slovak Republic, Slovenia, and Sweden have such provisions, allowing worker representatives to sit on the boards of private companies in firms above a certain size.[51] In Chile, Greece, Ireland, Israel, Poland, Portugal and Spain worker representatives can sit on the boards of state-owned enterprises only. Supervisory boards are a particularly essential feature of workers' voice in Germany, and an important arena where the quality of the working environment is influenced (Scholz and Vitols, 2019[112]) (see Chapter 4).

Figure 2.16 displays the share of employees covered by any form of worker representation as reported in the European Working Conditions Survey. The results show that on average, at least for European countries, the coverage of firm-level representation is not particularly higher in countries where firm-level bargaining dominates, although institutions of workers representation are indispensable pillars of collective bargaining in single-employer systems. Representation tends to be relatively high in multi-employer bargaining systems, with complementary effects between the two levels (notably in the Nordic countries, Germany or the Netherlands). On the other hand, the coverage of employees' representation is low in countries where firm-level bargaining is very limited, like in Greece or Portugal even after the recent reforms.

Figure 2.16. Representative voice in Europe

Share of employees with access to representative voice, 2015



Source: OECD calculations based on the 6th European Working Conditions Survey 2015 (EWCS 2015).

StatLink http://dx.doi.org/10.1787/888934027171

In practice, beyond representation, voice also materialises at the workplace through the organisation of direct exchanges between workers and managers (e.g. via regular town hall meetings and/or direct consultations, in this report referred to as "direct voice").[52] A key difference between direct and representative forms of voice is the legal protections and rights attached to the status of workers' representatives, notably the protection against retaliation and firing, and information and consultation rights. Therefore, direct and representative forms of voice are not substitutes. However, this distinction is useful in capturing the different ways in which communication between workers and managers de facto materialises (or fails to) across OECD countries.[53]

Finally, in "mixed" systems of voice, both direct and representative arrangements for workers' voice cohabit. According to data from the European Working Conditions Survey, these systems are the most common: in 2015, about 37% of European workers had access to both representative and direct voice arrangements, while 18% had access to voice arrangements of the "direct type"[54] only and 14% had access to solely representative voice arrangements.

The proportion of workers who have access to mixed-voice arrangements is higher in well-coordinated bargaining systems; by contrast, the proportion of workers in firms with no workplace voice arrangements at all is highest in decentralised and weakly coordinated bargaining systems. Access to these different forms of workers' voice arrangements also varies based on workers' characteristics. According to the same data, while 46% of highly educated workers in Europe had access to mixed systems of voice in 2015, this was the case for only 26% of low-skilled workers. Moreover, 44% of low-skilled workers had access to no voice arrangements at all, compared with 19% of high-skilled workers. Data by type of contracts and firm size display significant differences as well, with 43% of workers on temporary contracts, against 27% of those on permanent contracts without access to any form of voice. 53% of workers in small firms (less than 10 employees) do not have access to any form of voice, while 40% of those in firms above 10 employees have access to both direct and representative forms of voice.[55]

While in a number of countries, voice historically developed in its representative version, with unions playing a prominent role, systems of direct voice have become more prominent in recent decades (Bryson and Green, 2015[113]). Willman, Gomez and Bryson show that the "collapse of union voice" in the United Kingdom coincided with the expansion of direct voice mechanisms often initiated by employers (Willman, Gomez and Bryson, 2009[100]). However, as explained above, these two mechanisms are not substitutes, since many of the legal guarantees accompanying workers' representation are absent in direct voice arrangements. The rise of direct forms of voice in the United Kingdom has been associated with more collaborative relationships with managers and with more consultation, but also with less actual negotiation and with a weakening of representation itself, as workers' representatives act more as managerial assistants than as independent and influential stakeholders (Charlwood and Forth, 2009[114]).

2.7. How do national collective bargaining systems compare?

The previous sections have detailed the scope, building blocks and adjustment devices characteristic of national bargaining systems across OECD countries, in order to capture as much as possible their granularity, complexity and diversity. However, national collective bargaining systems should not be considered as just a sum of different elements but as a system with complex interactions between the different components. In this context it is useful to "zoom-out" so as to obtain an overarching view of each bargaining system.

Table 2.10 provides a summary of all the key features identified in Figure 2.1, a sort of dashboard of the different national collective bargaining systems. It clearly shows that collective bargaining coverage is high (above 50%) only in countries which have at least some forms of sectoral bargaining. In these countries high coverage either results from high employer organisation density or from a widespread use of administrative extensions. However, Table 2.10 emphasises that there is no single model of sectoral bargaining. Indeed, countries under this broad group differ greatly in terms of the degree of co-ordination and the room left to lower-level agreements to change the terms of employment. In particular:

- In Belgium (and Finland until 2015 and in other countries in the 1980s and 1990s), a rather centralised and co-ordinated country, sectoral agreements play an important role, while leaving some room for lower-level agreements to change the standards set in higher-level agreements. The specific feature of this system is the strong form of state imposed (or induced) co-ordination.
- In rather centralised and uncoordinated countries such as France, Iceland, Italy, Portugal and Slovenia, sectoral agreements play a strong role, extensions are used extensively and there is

rather limited room for lower-level agreements to derogate from higher-level ones. Moreover, in these countries co-ordination tend to be generally weak.

- Spain and Switzerland are in many respects similar to the previous group but in Spain the recent reform has made it somewhat easier for lower-level agreements to derogate from higher-level agreements (but derogations are only rarely used for the time being) while in Switzerland co-ordination still plays a non-minor role.
- Austria, Denmark, Finland (after 2015), Germany, the Netherlands, Norway and Sweden have an organised decentralised and co-ordinated bargaining system: in these countries sectoral agreements, even in the case of extensions, leave significant room for lower-level agreements to set the terms of employment by leaving up to bargaining parties the design of the hierarchy of agreements (Denmark, Finland, the Netherlands, Norway and Sweden) or by allowing for the possibility to opt-out (Germany and Austria). In these countries co-ordination is relatively strong (at least in certain sectors), and usually takes the form of pattern bargaining.

In countries where bargaining takes place predominantly at company level, collective bargaining coverage is typically below 20% (the Czech Republic and Ireland are the only exceptions). In these countries coverage tends to go hand in hand with trade union membership since having a trade union or worker representation in the workplace is a necessary condition to be able to negotiate a collective agreement. Higher-level agreements (or similar regulation mechanisms such as “Modern Awards” in Australia or “Sectoral Employment Orders” in Ireland) can set some general minimum wage and work organisation standards and thus limit coverage erosion to some extent. Finally, among countries with dominant firm-level bargaining Japan stands out due to the significant and unique degree of co-ordination (*Shunto*).

Finally, in all countries where co-ordination is strong, trust is medium/high. Trust is indeed a key precondition for co-ordination to be effective. By contrast, the quality of labour relations is not systematically related to level of collective bargaining, with very high quality labour relations observed among both decentralised and centralised systems.

Table 2.10. Dashboard of collective bargaining systems, 2018

Countries ordered by predominant level of collective bargaining, degree of centralisation, co-ordination, trade union density in the private sector, collective bargaining coverage, employer organisation density and quality of labour relations

	Predominant level	Degree of centralisation/ decentralisation	Co-ordination	Trade union density in the private sector	Employer organisation density	Collective bargaining coverage rate	Quality of labour relations
Costa Rica	Company	Decentralised	No	Less than 5%	..	5-10%	Medium
Colombia	Company	Decentralised	No	Less than 5%	..	5-10%	Low
Turkey	Company	Decentralised	No	Less than 5%	..	5-10%	Low
Estonia	Company	Decentralised	No	Less than 5%	20-30%	10-20%	Medium
Lithuania	Company	Decentralised	No	5-10%	..	5-10%	Medium
Mexico	Company	Decentralised	No	5-10%	..	10-20%	Medium
United States	Company	Decentralised	No	5-10%	..	10-20%	High
Korea	Company	Decentralised	No	5-10%	10-20%	10-20%	Low
Poland	Company	Decentralised	No	5-10%	20-30%	10-20%	Low
Latvia	Company	Decentralised	No	5-10%	30-40%	10-20%	Medium
Hungary	Company	Decentralised	No	5-10%	60-70%	20-30%	Low
Chile	Company	Decentralised	No	10-20%	..	10-20%	Medium
New Zealand	Company	Decentralised	No	10-20%	..	10-20%	High
Canada	Company	Decentralised	No	10-20%	..	20-30%	High
United Kingdom	Company	Decentralised	No	10-20%	30-40%	20-30%	High
Czech Republic	Company	Decentralised	No	10-20%	60-70%	40-50%	Medium
Ireland	Company	Decentralised	No	20-30%	60-70%	40-50%	Medium
Japan	Company	Decentralised	High	10-20%	..	10-20%	High
Israel	Company/Sectoral	Decentralised	No	10-20%	40-50%	20-30%	Medium
Slovak Republic	Company/Sectoral	Decentralised	No	10-20%	30-40%	20-30%	Low
Greece	Company/Sectoral	Decentralised[1]	No	10-20%	50-60%	40-50%	Low
Australia[2]	Company/Sectoral	Decentralised	No	10-20%	..	50-60%	Low
Luxembourg	Company/Sectoral	Decentralised	No	20-30%	80-90%	50-60%	High
Spain	Sectoral	Organised decentralised	Low	10-20%	70-80%	70-80%	Low
Switzerland	Sectoral	Organised decentralised	High	10-20%	..	40-50%	High
Germany	Sectoral	Organised decentralised	High	10-20%	60-70%	50-60%	High
Netherlands	Sectoral	Organised decentralised	High	10-20%	80-90%	80-90%	High
Austria	Sectoral	Organised decentralised	High	20-30%	90% or more	90% or more	High
Norway	Sectoral	Organised decentralised	High	30-40%	70-80%	60-70%	High
Finland	Sectoral	Organised decentralised	High	50-60%	60-70%	80-90%	Medium
Denmark	Sectoral	Organised decentralised	High	60-70%	60-70%	80-90%	High
Sweden	Sectoral	Organised decentralised	High	60-70%	80-90%	90% or more	High
Slovenia	Sectoral	Centralised	Low	10-20%	50-60%	60-70%	Medium
Iceland	Sectoral	Centralised	Low	80-90%	..	80-90%	High
France	Sectoral	Centralised	Low	5-10%	70-80%	90% or more	Low
Portugal	Sectoral	Centralised	Low	10-20%	60-70%	60-70%	Medium
Italy	Sectoral	Centralised	Low	20-30%	60-70%	80-90%	Low
Belgium	Sectoral/National	Centralised	High	50-60%	80-90%	90% or more	Medium

..: not available.

Note: Statistics on trade union density in the private sector are based on figures shown in the Annex Figure 4.A1.5 in OECD (2017[7]), those on collective bargaining coverage on figures shown in Figure 2.11 and those on employer organisation density on figures shown in Panel A of Figure 2.3. Quality of labour relations is based on a ranking of the average national scores as shown in Panel A of Figure 2.15.
1. Until September 2018.
2. In Australia the classification company/sector refers to the use of Modern Awards which are industry-wide regulations providing a fair and relevant minimum safety net of terms and conditions. A proper sectoral bargaining does not exist in Australia.
Source: OECD elaboration based on the OECD Policy Questionnaires, ICTWSS data and national sources (for further details see Figure 4.4, Figure 4.5, Figure 4.9 and Annex Figure 4.A1.6 in OECD (2017[7]), "Collective bargaining in a changing world of work" in *OECD Employment Outlook 2017*, https://dx.doi.org/10.1787/empl_outlook-2017-8-en).

Conclusions

This chapter has documented the granularity, diversity and complexity of national collective bargaining systems in OECD countries. The analysis confirms the need to go beyond standard macroeconomic indicators of collective bargaining: indeed, standard indicators of coverage, trade union density, or centralisation hide a wide variation in collective bargaining systems.

Capturing that variation implies accounting in a more precise way for the institutional set-ups and practices characterising collective bargaining systems. In particular, beyond considering the representativeness of social partners and the coverage of collective agreements (including by considering the role of extension mechanisms), the chapter identified four different building blocks into which collective bargaining systems can be decomposed. Those are the *actual* degree of centralisation (taking into account both the predominant level of bargaining but also the institutional flexibility for lower-level agreements to derogate from higher-level agreements), the degree of co-ordination between bargaining units, the overall quality of labour relations as well as the level of enforcement of collective agreements.

This granular approach allows re-thinking old debates such as the one concerned with the optimal degree of bargaining centralisation. While full centralisation can ensure high coverage and inclusiveness at the expense, however, of flexibility, at the opposite extreme full decentralisation while leaving flexibility to individual firms, can result in low coverage and has clear limits in terms of inclusiveness. The chapter suggests that the articulation between sectoral and firm-level bargaining, the content of collective agreements at sectoral level, the use of extensions and of "escape valves" such as opening clauses and exemptions from extensions, are some of the key tools to find the right balance between flexibility and inclusiveness. Co-ordination mechanisms across sectors and firms are also key elements for ensuring inclusiveness and flexibility.

Grasping the full complexities of bargaining systems also allows distinguishing between systems which are only *apparently* similar, but which in fact largely vary in practice, and are therefore likely to yield contrasted outcomes. The next chapters build on this exercise, to assess whether and how collective bargaining can promote a high level of employment, labour market inclusion and labour market resilience (Chapter 3), as well as whether it has any bearing on the non-monetary aspects of job quality (Chapter 4).

Priorities for further research also emerge from this chapter. First, future work should focus more on understanding the increasing heterogeneity of collective bargaining systems within countries. The functioning of collective bargaining can vary significantly within the same country across sectors, yet the extent, drivers and effects of this divergence have not been studied in details so far. Second, while this chapter highlights the importance of co-ordination, formulating clear policy measures to effectively promote co-ordination remain difficult since the latter largely relies on traditions, unwritten practices and personal relationships where trust is fundamental. This is an important topic for future study.

References

Addison, J. (2016), "Collective bargaining systems and macroeconomic and microeconomic flexibility: the quest for appropriate institutional forms in advanced economies", *IZA Journal of Labor Policy*, Vol. 5/19, http://dx.doi.org/10.1186/s40173-016-0075-8. [71]

Addison, J. et al. (2016), "Is the Erosion Thesis Overblown? Alignment from Without in Germany", *Industrial Relations*, Vol. 55/3, pp. 415-443, http://dx.doi.org/10.1111/irel.12144. [44]

Amossé, T. and J. Forth (2016), "Employee Expression and Representation at Work: Voice or Exit?", in *Comparative Workplace Employment Relations*, Palgrave Macmillan UK, London, https://doi.org/10.1057/978-1-137-57419-0_3. [106]

Askenazy, P. and T. Breda (2019), *Electoral Democracy at Work*, Paris School of Economics. [103]

Australian Bureau of Statistics (2000), *Australian Social Trends 2000*, http://www.abs.gov.au/AUSSTATS/abs@.nsf/mediareleasesbytitle/46658007B1BC3062CA25690C002A24F0?OpenDocument (accessed on 21 February 2019). [37]

Autor, D. (2003), "Outsourcing at Will: The Contribution of Unjust Dismissal Doctrine to the Growth of Employment Outsourcing", *Journal of Labor Economics*, Vol. 21/1, pp. 1-42, https://doi.org/10.1086/344122. [6]

Benassi, C. (2011), *The Implementation of Minimum Wage: Challenges and Creative Solutions*, https://kclpure.kcl.ac.uk/portal/en/publications/the-implementation-of-minimum-wage-challenges-and-creative-solutions(791d8f7c-355b-47f8-8ed2-e2d319742a77).html (accessed on 27 September 2019). [97]

Benassi, C. and T. Vlandas (2016), "Union inclusiveness and temporary agency workers: The role of power resources and union ideology", *European Journal of Industrial Relations*, Vol. 22/1, pp. 5-22, http://dx.doi.org/10.1177/0959680115589485. [2]

Bennett, J. and B. Kaufman (2002), *The future of private sector unionism in the United States*, M.E. Sharpe. [28]

Berry, C. and S. Mcdaniel (2018), *Young people and trade unionism in the hourglass economy*, Unions 21, http://www.unions21.org.uk (accessed on 6 November 2018). [30]

Blanchard, O., F. Jaumotte and P. Loungani (2014), "Labor market policies and IMF advice in advanced economies during the Great Recession", *IZA Journal of Labor Policy*, Vol. 3/1, p. 2, http://dx.doi.org/10.1186/2193-9004-3-2. [52]

Blanchard, O. and T. Philippon (2004), *The Quality of Labor Relations and Unemployment*, National Bureau of Economic Research, Cambridge, MA, http://dx.doi.org/10.3386/w10590. [98]

Blanchard, O. and J. Wolfers (2000), "The Role of Shocks and Institutions in the Rise of European Unemployment: the Aggregate Evidence", *The Economic Journal*, Vol. 110/462, pp. C1-C33, http://dx.doi.org/10.1111/1468-0297.00518. [82]

Blanchflower, D. (2007), "International Patterns of Union Membership", *British Journal of Industrial Relations*, Vol. 45, https://www.dartmouth.edu/~blnchflr/papers/bjirdgb.pdf (accessed on 19 October 2018). [13]

Böckerman, P. and R. Uusitalo (2006), *Erosion of the Ghent System and Union Membership Decline: Lessons from Finland*, http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.500.3957&rep=rep1&type=pdf (accessed on 21 February 2019). [39]

Boeri, T. (2014), "Two-Tier Bargaining"*, IZA Discussion Paper*, No. 8358, http://ftp.iza.org/dp8358.pdf (accessed on 10 January 2018). [64]

Brandl, B. and C. Ibsen (2016), "Instability and Change in Collective Bargaining: An Analysis of the Effects of Changing Institutional Structures", *British Journal of Industrial Relations*, Vol. 55/3, pp. 527-550, http://dx.doi.org/10.1111/bjir.12207. [99]

Brandl, B. and A. Lehr (2016), "The strange non-death of employer and business associations: An analysis of their representativeness and activities in Western European countries", *Economic and Industrial Democracy*, pp. 1-22, http://dx.doi.org/10.1177/0143831X16669842. [8]

Brändle, T., W. Heinbach and M. Maier (2011), "Tarifliche Öffnung in Deutschland: Ausmaß, Determinanten, Auswirkungen", *Journal for Labour Market Research*, Vol. 44/1-2, pp. 163–172, http://dx.doi.org/10.1007/s12651-011-0069-3. [67]

Bronfenbrenner, K. (2009), *No Holds Barred - The Intensification of Employer Opposition to Organizing*, Economic Policy Institute, https://www.epi.org/publication/bp235/ (accessed on 14 May 2019). [27]

Brown, W. et al. (eds.) (2009), *Employee representation*, Cambridge University Press. [114]

Bryson, A. and R. Davies (2018), "Family, Place and the Intergenerational Transmission of Union Membership", *British Journal of Industrial Relations*, http://dx.doi.org/10.1111/bjir.12435. [14]

Bryson, A. and J. Forth (2010), *Union Organisation and the Quality of Employment Relations*, National Institute for Economic and Social Research, https://www.researchgate.net/publication/228894446_Union_Organisation_and_the_Quality_of_Employment_Relations (accessed on 27 September 2019). [107]

Bryson, A. and R. Gomez (2005), "Why Have Workers Stopped Joining Unions? The Rise in Never-Membership in Britain", *British Journal of Industrial Relations*, Vol. 43/1, pp. 67-92, http://dx.doi.org/10.1111/j.1467-8543.2005.00345.x. [16]

Bryson, A. et al. (2005), "Youth-adult differences in the demand for unionization: Are American, British, and Canadian workers all that different?", *Journal of Labor Research*, Vol. 26/1, pp. 155-167, http://dx.doi.org/10.1007/BF02812227. [32]

Bryson, A. et al. (2013), "The Comparative Advantage of Non-Union Voice in Britain, 1980-2004", *Industrial Relations: A Journal of Economy and Society*, Vol. 52, pp. 194-220, http://dx.doi.org/10.1111/irel.12001. [108]

Calmfors, L. et al. (1988), "Bargaining Structure, Corporatism and Macroeconomic Performance", *Economic Policy*, Vol. 3/6, p. 13, http://dx.doi.org/10.2307/1344503. [1]

Cameron, D. (1984), "Social Democracy, Corporatism, Labour Quiescence and the Representation of Economic Interest in Advanced Capitalist Societies", in Goldthorpe, J. (ed.), *Order and Conflict in Contemporary Capitalism*, Oxford University Press, Oxford. [59]

Carcillo, S. et al. (2019), "Assessing recent reforms and policy directions in France: Implementing the OECD Jobs Strategy", *OECD Social, Employment and Migration Working Papers*, No. 227, OECD Publishing, Paris, https://dx.doi.org/10.1787/657a0b54-en. [77]

Checchi, D. and C. Lucifora (2002), "Unions and labour market institutions in Europe", *Departmental Working Papers*, No. 16, Department of Economics, Management and Quantitative Methods at Università degli Studi di Milano, https://ideas.repec.org/p/mil/wpdepa/2002-16.html (accessed on 14 May 2019). [41]

Cohen, Y., Y. Haberfeld and G. Mundlak (2007), "The State of Organized Labor in Israel", *Journal of labour research*, Vol. 28/2, pp. 255-73, https://pdfs.semanticscholar.org/7917/d39fd327036e79beeb3396d53df848a5f168.pdf (accessed on 14 May 2019). [38]

Conchon, A. (2011), *Board-level employee representation rights in Europe : facts and trends*, ETUI, European Trade Union Institute. [111]

De Ridder, M. and R. Euwals (2016), "What are the wage effects of extending collective labour agreements? Evidence from the Netherlands CPB Background Document", *CPB Background Document*. [53]

De Spiegelaere, S. et al. (2019), "Democracy at work", in *Benchmarking Working Europe 2019*, European Trade Union Institute (ETUI), Brussels, https://www.etui.org/Publications2/Books/Benchmarking-Working-Europe-2019 (accessed on 8 October 2019). [102]

Duran, J. and A. Corral (2016), *Employee involvement and participation at work: Recent research and policy developments revisited*, Eurofound, https://www.eurofound.europa.eu/publications/report/2016/eu-member-states/employee-involvement-and-participation-at-work-recent-research-and-policy-developments-revisited (accessed on 11 October 2019). [116]

Dustmann, C. et al. (2014), "From Sick Man of Europe to Economic Superstar: Germany's Resurgent Economy", *Journal of Economic Perspectives*, Vol. 28/1, pp. 167-188, http://dx.doi.org/10.1257/jep.28.1.167. [66]

Ebbinghaus, B., C. Göbel and S. Koos (2011), "Social capital, 'Ghent' and workplace contexts matter: Comparing union membership in Europe", *European Journal of Industrial Relations*, Vol. 17/2, pp. 107-124, http://dx.doi.org/10.1177/0959680111400894. [24]

Eurofound (2015), *Collective bargaining in Europe in the 21st century*, Publication Office of the European Union, Luxembourg. [65]

European Commission, D. (2019), "Enhanced Surveillance Report", *Institutional Paper*, No. 103, European Commission, https://ec.europa.eu/info/sites/info/files/economy-finance/ip103_en.pdf (accessed on 27 September 2019). [75]

Farber, H. and A. Krueger (1992), "Union Membership in the United States: The Decline Continues", *NBER Working Paper*, No. 4216, National Bureau of Economic Research, Cambridge, MA, http://dx.doi.org/10.3386/w4216. [18]

Felstead, A., D. Gallie and G. Francis (eds.) (2015), *Unions and Job Quality*, Oxford University Press. [113]

Fitzenberger, B., K. Kohn and Q. Wang (2011), "The erosion of union membership in Germany: determinants, densities, decompositions", *Journal of Population Economics*, Vol. 24/1, pp. 141-165, http://dx.doi.org/10.1007/s00148-009-0299-7. [25]

Flanagan, R. (2005), "Has management strangled U.S. unions?", *Journal of Labor Research*, Vol. 26/1, pp. 33-63, http://dx.doi.org/10.1007/BF02812223. [42]

Fougere, D., E. Gautier and S. Roux (2016), "The Impact of the National Minimum Wage on Industry-Level Wage Bargaining in France", *Sciences Po publications*, No. 587, https://ideas.repec.org/p/spo/wpmain/infohdl2441-3mjt8d63i195voq228mf1sr91q.html (accessed on 27 September 2019). [48]

Fougère, D., E. Gautier and S. Roux (2018), "Wage floor rigidity in industry-level agreements: Evidence from France", *Labour Economics*, Vol. 55, pp. 72-97, http://dx.doi.org/10.1016/j.labeco.2018.09.001. [87]

Freeman, R. and J. Medoff (1984), *What do unions do?*, Basic Books. [105]

Gallie, D. and Y. Zhou (2013), *Work organisation and employee involvement in Europe*, Eurofound, https://www.eurofound.europa.eu/publications/report/2013/working-conditions/work-organisation-and-employee-involvement-in-europe (accessed on 11 October 2019). [117]

Garnero, A. (2018), "The dog that barks doesn't bite: coverage and compliance of sectoral minimum wages in Italy", *IZA Journal of Labor Policy*, Vol. 7/1, http://dx.doi.org/10.1186/s40173-018-0096-6. [95]

Garnero, A., S. Kampelmann and F. Rycx (2015), "Sharp Teeth or Empty Mouths? European Institutional Diversity and the Sector-Level Minimum Wage Bite", *British Journal of Industrial Relations*, Vol. 53/4, pp. 760-788, http://dx.doi.org/10.1111/bjir.12104. [94]

Gilfillan, G. and C. McGann (2018), *Trends in union membership in Australia*, Parliament of Australia, https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/rp1819/UnionMembership (accessed on 21 February 2019). [17]

Gindling, T., N. Mossaad and J. Trejos (2015), "The Consequences of Increased Enforcement of Legal Minimum Wages in a Developing Country", *ILR Review*, Vol. 68/3, pp. 666-707, http://dx.doi.org/10.1177/0019793915575703. [96]

Givan, R. and A. Hipp (2012), "Public Perceptions of Union Efficacy", *Labor Studies Journal*, Vol. 37/1, pp. 7-32, http://dx.doi.org/10.1177/0160449X11429264. [33]

Gold, M. (2011), "'Taken on board': An evaluation of the influence of employee board-level representatives on company decision-making across Europe", *European Journal of Industrial Relations*, Vol. 17/1, pp. 41-56, http://dx.doi.org/10.1177/0959680110392276. [109]

Gomez, R. and D. Lamb (2016), "Unions and Traditionally Disadvantaged Workers: Evidence from Union Wage Premiums in Canada 2000 to 2012", *E-Journal of International and Comparative Labour Studies*, Vol. 5/3, http://ejcls.adapt.it/index.php/ejcls_adapt/article/view/201 (accessed on 15 October 2019). [3]

Gould, E. and A. Hijzen (2016), "Growing Apart, Losing Trust? The Impact of Inequality on Social Capital", *IMF Working Paper*, No. 176, International Monetary Fund, Washington, DC. [115]

Gramm, C. and J. Schnell (2001), "The use of flexible staffing arrangements in core production jobs", *Industrial and Labor Relations Review*, Vol. 54/2, pp. 245-258, http://journals.sagepub.com/doi/pdf/10.1177/001979390105400203 (accessed on 21 February 2018). [5]

Haucap, J., U. Pauly and C. Wey (2001), "Collective wage setting when wages are generally binding. An antitrust perspective", *International Review of Law and Economics*, Vol. 21/3, pp. 287-307, http://dx.doi.org/10.1016/S0144-8188(01)00061-8. [54]

Hayter, S. and J. Visser (2018), *Collective Agreements: Extending Labour Protection*, International Labour Organization, Geneva. [51]

Hijzen, A. and P. Martins (2016), "No Extension without Representation? Evidence from a Natural Experiment in Collective Bargaining", *IMF Working Papers*, No. 16/143, International Monetary Fund. [57]

Hijzen, A., P. Martins and J. Parlevliet (2019), "Frontal assault versus incremental change: A comparison of collective bargaining in Portugal and the Netherlands", *IZA Journal of Labor Policy*, Vol. 9/1, http://dx.doi.org/10.2478/izajolp-2019-0008. [58]

Hirschman, A. (1972), *Exit, voice, and loyalty : responses to decline in firms, organizations, and states*, Harvard University Press. [104]

Høgedahl, L. and K. Kongshøj (2017), "New trajectories of unionization in the Nordic Ghent countries: Changing labour market and welfare institutions", *European Journal of Industrial Relations*, Vol. 23/4, pp. 365-380, http://dx.doi.org/10.1177/0959680116687666. [40]

Ibsen, C. and M. Keune (2018), "Organised Decentralisation of Collective Bargaining : Case studies of Germany, Netherlands and Denmark", *OECD Social, Employment and Migration Working Papers*, No. 217, OECD Publishing, Paris, https://dx.doi.org/10.1787/f0394ef5-en. [63]

ILO (2014), *Portugal : tackling the jobs crisis in Portugal*, International Labour Office, https://ideas.repec.org/b/ilo/ilosge/994853263402676.html (accessed on 27 September 2019). [43]

IMF (2016), "Time for a Supply-Side Boost? Macroeconomic Effects of Labor and Product Market Reforms in Advanced Economies", in *World Economic Outlook, April 2016 : Too Slow for Too Long.*, International Monetary Fund, Washington, DC. [85]

Inglehart, R. (1997), *Modernization and postmodernization : cultural, economic, and political change in 43 societies*, Princeton University Press, https://press.princeton.edu/titles/5981.html (accessed on 19 November 2018). [31]

International Labour Office, R. (2014), "Greece: Productive jobs for Greece", *Studies on growth with equity*, International Labour Organisation, https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_319755.pdf (accessed on 27 September 2019). [73]

Izquierdo, M. and J. Jimeno (2015), "Employment, wage and price reactions to the crisis in Spain: firm-level evidence from the WDN Survey", *Documentos Ocasionales*, No. 1503, Banco de Espana. [72]

Kato, T. (2016), "Productivity, wages and unions in Japan", *Conditions of Work and Employment*, No. 73, International Labour Office, Geneva, https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/publication/wcms_465070.pdf (accessed on 27 September 2019). [91]

Kenworthy, L. (2001), "Wage-Setting Measures: A Survey and Assessment", *World Politics*, Vol. 54/1, pp. 57-98, http://dx.doi.org/10.1353/wp.2001.0023. [78]

Keune, M. (2015), *Trade unions and young workers in seven EU countries*, ADAPT-Association for International and Comparative Studies in Labour Law and Industrial Relations, http://www.adapt.it/younion/ (accessed on 13 November 2018). [34]

Kjellberg, A. (2011), "The Decline in Swedish Union Density since 2007", *Nordic Journal of Working Life Studies*, Vol. 1/1, pp. 67-93, http://portal.research.lu.se/ws/files/3462138/2064087.pdf (accessed on 21 February 2019). [36]

Kleinknecht, R. (2015), "Employee participation in corporate governance: Implications for company resilience", *European Journal of Industrial Relations*, Vol. 21/1, pp. 57-72, http://dx.doi.org/10.1177/0959680114523820. [110]

Legree, S., T. Schirle and M. Skuterud (2014), "The Effect of Labour Relations Laws on Union Density Rates: Evidence from Canadian Provinces", *LCERPA Working Papers*, https://ideas.repec.org/p/wlu/lcerpa/0078.html (accessed on 21 February 2019). [26]

Lesch, H. (2004), "Trade Union Density in International Comparison", *CESifo Forum*, Vol. 5/4, pp. 12-18, https://econpapers.repec.org/article/cesifofor/v_3a5_3ay_3a2004_3ai_3a4_3ap_3a12-18.htm (accessed on 14 May 2019). [23]

Magruder, J. (2012), "High Unemployment Yet Few Small Firms: The Role of Centralized Bargaining in South Africa", *American Economic Journal: Applied Economics*, Vol. 4/3, pp. 138-166, http://dx.doi.org/10.1257/app.4.3.138. [55]

Martins, P. (2014), "30,000 Minimum Wages: The Economic Effects of Collective Bargaining Extensions", *IZA Discussion Papers*, No. 8540. [56]

Ministério do Trabalho, S. (2016), *Livro Verde sobre as Relações Laborais*, Ministério do Trabalho, Solidariedade e Segurança Social, http://cite.gov.pt/pt/destaques/noticia613.html (accessed on 27 September 2019). [46]

Morisette, R., G. Schellenberg and A. Johnson (2005), "Diverging trends in unionization", *Perspectives on Labour and Income*, Vol. 6/4, https://www.researchgate.net/publication/237242624_Diverging_trends_in_unionization (accessed on 30 September 2019). [12]

Morishima, M. (1991), "Information Sharing and Collective Bargaining in Japan: Effects on Wage Negotiation", *Industrial and Labor Relations Review*, Vol. 44/3, p. 469, http://dx.doi.org/10.2307/2524156. [90]

Naumannn, R. (2018), "Reregulating the extension of collective agreements in Portugal: A case study", in Susan Hayter and Jelle Visser (ed.), *Collective Agreements: Extending Labour Protection*, International Labour Organisation. [49]

Nickell, S. (1997), "Unemployment and Labor Market Rigidities: Europe versus North America", *Journal of Economic Perspectives*, Vol. 11/3, pp. 55-74, http://dx.doi.org/10.1257/jep.11.3.55. [80]

Nickell, S. and R. Layard (1999), "Labor market institutions and economic performance", in *Handbook of Labor Economics*, Elsevier, http://dx.doi.org/10.1016/S1573-4463(99)30037-7. [92]

OECD (2018), *OECD Economic Surveys: Greece 2018*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eco_surveys-grc-2018-en. [74]

OECD (2017), "Collective bargaining in a changing world of work", in *OECD Employment Outlook 2017*, OECD Publishing, Paris, https://dx.doi.org/10.1787/empl_outlook-2017-8-en. [7]

OECD (2017), *Labour Market Reforms in Portugal 2011-15: A Preliminary Assessment*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264269576-en. [45]

OECD (2017), "Labour market resilience: The role of structural and macroeconomic policies", in *OECD Employment Outlook 2017*, OECD Publishing, Paris, https://dx.doi.org/10.1787/empl_outlook-2017-6-en. [86]

OECD (2014), *The 2012 Labour Market Reform in Spain: A Preliminary Assessment*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264213586-en. [76]

OECD (2012), *OECD Employment Outlook 2012*, OECD Publishing, Paris, https://dx.doi.org/10.1787/empl_outlook-2012-en. [61]

OECD (2012), "What Makes Labour Markets Resilient During Recessions?", in *OECD Employment Outlook 2012*, OECD Publishing, Paris, https://dx.doi.org/10.1787/empl_outlook-2012-3-en. [84]

OECD (2004), *OECD Employment Outlook 2004*, OECD Publishing, Paris, https://dx.doi.org/10.1787/empl_outlook-2004-en. [60]

OECD (1997), *OECD Employment Outlook 1997: July*, OECD Publishing, Paris, https://dx.doi.org/10.1787/empl_outlook-1997-en. [81]

OECD (1991), "Trends in trade union membership", in *OECD Employment Outlook*, http://www.oecd.org/els/emp/4358365.pdf (accessed on 13 September 2019). [22]

Peetz, D. (1990), "Declining Union Density", *Journal of Industrial Relations*, Vol. 32/2, pp. 197-223, http://dx.doi.org/10.1177/002218569003200202. [20]

Salvatori, A. (2009), "What Do Unions Do to Temporary Employment?", *IZA Discussion Paper*, No. 4554, http://ftp.iza.org/dp4554.pdf (accessed on 26 January 2018). [4]

Schnabel, C. (2013), "Union membership and density: Some (not so) stylized facts and challenges", *European Journal of Industrial Relations*, Vol. 19/3, pp. 255-272, http://dx.doi.org/10.1177/0959680113493373. [21]

Schnabel, C. and J. Wagner (2007), "The Aging of the Unions in West Germany 1980-2006", *IWQW Discussion Paper*, No. 04/2008, IWQW, https://www.econstor.eu/bitstream/10419/29565/1/612462811.pdf (accessed on 19 October 2018). [11]

Schnabel, C., S. Zagelmeyer and S. Kohaut (2006), "Collective Bargaining Structure and its Determinants: An Empirical Analysis with British and German Establishment Data", *European Journal of Industrial Relations*, Vol. 12/2, pp. 165-188, http://dx.doi.org/10.1177/0959680106065036. [69]

Scholz, R. and S. Vitols (2019), "Board-level codetermination: A driving force for corporate social responsibility in German companies?", *European Journal of Industrial Relations*, Vol. 25/3, pp. 233-246, http://dx.doi.org/10.1177/0959680119830566. [112]

Schulten, T. and R. Bispinck (2014), "Wages, Collective Bargaining and Economic Development in Germany. Towards a more expansive and solidaristic development?", *WSI-Diskussionspapier*, No. 191, Hans-Böckler-Stiftung, Wirtschafts- und Sozialwissenschaftliches Institut (WSI), http://www.wsi.de. [70]

Seifert, H. and H. Massa-Wirth (2005), "Pacts for employment and competitiveness in Germany", *Industrial Relations Journal*, Vol. 36/3, pp. 217-240, http://dx.doi.org/10.1111/j.1468-2338.2005.00355.x. [68]

Shirai, T. (1987), "Japan", in Windmuller, J. (ed.), *Collective bargaining in industrialised market economies : a reappraisal*, International Labour Office, Geneva, https://books.google.fr/books/about/Collective_bargaining_in_industrialised.html?id=l8yxAAAAIAAJ&redir_esc=y (accessed on 27 September 2019). [89]

Soskice, D. (1990), "Wage determination: The changing role of institutions in advanced industrialized countries", *Oxford Review of Economic Policy*, http://dx.doi.org/10.1093/oxrep/6.4.36. [79]

Teulings, C. and J. Hartog (2009), *Corporatism or competition?*, http://dx.doi.org/10.1017/cbo9780511599330. [83]

Togaki, I. (1986), "Determination of Wages in Japan", in Bergmann, J.; Tokunaga, S. (ed.), *Economic and Social Aspects of Industrial Relations*, Campus, Frankfurt-New York. [88]

Traxler, F. (2003), *Coordinated bargaining: a stocktaking of its preconditions, practices and performance*. [93]

Traxler, F. (1995), "Farewell to Labour Market Associations? Organized versus Disorganized Decentralization as a Map for Industrial Relations", in Crouch, C. and F. Traxler (eds.), *Organized Industrial Relations in Europe: What Future?*, Aldershot, Avebury. [62]

Vachon, T. and M. Wallace (2013), "Globalization, Labor Market Transformation, and Union Decline in U.S. Metropolitan Areas", *Labor Studies Journal*, Vol. 38/3, pp. 229-255, http://dx.doi.org/10.1177/0160449X13511539. [9]

Vandaele, K. (2012), "Youth representatives' opinions on recruiting and representing young workers: A twofold unsatisfied demand?", *European Journal of Industrial Relations*, Vol. 18/3, pp. 203-218, http://dx.doi.org/10.1177/0959680112452692. [35]

Visser, J. (2018), "Extension policies compared: How the extension of collective agreements works in the Netherlands, Switzerland, Finland and Norway", in Hayter, S. and J. Visser (eds.), *Collective agreements: extending labour protection*, International Labour Organization, Geneva. [50]

Visser, J. (2016), "What happened to collective bargaining during the great recession?", *IZA Journal of Labor Policy*, Vol. 5/1, http://dx.doi.org/10.1186/s40173-016-0061-1. [47]

Visser, J. (2006), "Union Membership Statistics in 24 Countries", *Federal Publications*, https://digitalcommons.ilr.cornell.edu/key_workplace/273 (accessed on 9 October 2018). [10]

Visser, J. (2002), "Why Fewer Workers Join Unions in Europe: A Social Custom Explanation of Membership Trends", *British Journal of Industrial Relations*, Vol. 40/3, pp. 403-430, http://dx.doi.org/10.1111/1467-8543.00241. [15]

Visser, J. (forthcoming), "Can Unions revitalize?", *International Journal of Labour Research*. [19]

Wilkinson, A. et al. (eds.) (2010), *Voice in the Wilderness? The Shift From Union to Non-Union Voice in Britain*, Oxford University Press, http://dx.doi.org/10.1093/oxfordhb/9780199207268.003.0016. [101]

Willman, P., R. Gomez and A. Bryson (2009), "Voice at the workplace: where do we find it, why is it there, and where is it going?", in Brown, W. (ed.), *The evolution of the modern workplace*, Cambridge University Press, https://www.researchgate.net/publication/43220301_Voice_at_the_workplace_where_do_we_find_it_why_is_it_there_and_where_is_it_going (accessed on 17 September 2019). [100]

Wooden, M. (1999), "Union Amalgamations and the Decline in Union Density", *Journal of Industrial Relations*, Vol. 41/1, pp. 35-52, http://dx.doi.org/10.1177/002218569904100102. [29]

Annex 2.A. Decomposing effects of change in employment composition on union density

In order to analyse the role of employment composition effects on the evolution of trade union density a nonlinear multivariate decomposition method is conducted on individual microdata on union membership This technique uses the output from probit regression model to partition the components of year differences in a statistic, such as a mean or proportion, into a component attributable to the employment composition changes and a component attributable to differences in unionisation by employment characteristics.

For each year *t*, the probability of employee *i* to be unionised is regressed on four vectors accounting for employment composition:

$$\Pr\{Union_{i,t} = yes\} = F(\beta X_{i,t}) \quad (1)$$

Where F is the probit function defined as the cumulative normal distribution function $\Phi(\beta X_{i,t})$, and $X_{i,t}$ the employment composition vector grouped as follows: demographics (sex, age groups and educational attainment), job characteristics (industry, occupation, public/private/sector and firm size), atypical employment (temporary/ permanent contract, part-time/full-time job and job tenure) and other factors (migration status and quintile of the hourly earnings).

Then, the mean difference in union density between two years (indices *T* for the last year and *0* for the base year) is decomposed as:

$$\overline{Union}_T - \overline{Union}_0 = \overline{F(\beta_T X_T)} - \overline{F(\beta_0 X_0)} \quad (2)$$

$$= \underbrace{\left\{\overline{F(\beta_T X_T)} - \overline{F(\beta_T X_0)}\right\}}_{E} + \underbrace{\left\{\overline{F(\beta_T X_0)} - \overline{F(\beta_0 X_0)}\right\}}_{C} \quad (3)$$

The first component of equation (*E*) refers to the part of the differential attributable to changes in employment composition and the second component (*C*) refers to the part of the differential attributable to differences in unionisation by group.

The contribution of each employment characteristics to the employment composition effect (*E*) can be decomposed by the mean of weighting factors $W_{\Delta X_k}$derived from $\beta_T \overline{X_T}$ and $\beta_0 \overline{X_0}$ as:

$$\overline{Union}_T - \overline{Union}_0 = E + C = \sum_{k=1}^{K} W_{\Delta X_k} E + C$$

$$W_{\Delta X_k} = \frac{\beta_{T_k}(\bar{X}_{T_k} - \bar{X}_{0_k})}{\sum_{k=1}^{K}(\bar{X}_{T_k} - \bar{X}_{0_k})}, \text{ where } \sum_{k=1}^{K} W_{\Delta X_k} = 1$$

Thus, the composition weights $W_{\Delta X_k}$ reflect the contribution of the k[th] covariate to the linearization of E as determined by the magnitude of the group difference in means weighted by the reference group's effect.

Annex 2.B. Data sources used in the decomposition analysis

The analysis of employment composition effects on trade union density has been conducted on 16 countries based on 18 data surveys (two for Mexico and the United Kingdom, respectively) for which question on trade union affiliation and a sufficient number of employment characteristics was available (see Annex Table 2.B.1).

Labour force surveys, that are official national sources to estimate trade union density, have been used for Canada, Ireland, Mexico (2005-18), the United Kingdom (2007-17) and the United States. In the case of Mexico, the panel data survey (ENIGH) and the labour force survey (ENOE) are not recognised as an official source to estimate the degree of unionisation among employees. However, in the absence of alternative data source, estimates based on these two survey are integrated into the OECD/ICTWSS Database on trade unions. It is worth to note that for international comparison purpose, the incorporated self-employed for Canada and the United States are included in the OECD/ICTWSS database what is not the case in this analysis.

Panel data surveys for Australia (HILDA), Germany (SOEP), Korea (KLIPS) and the United Kingdom (BHPS in 1994-2007).and data from the European social survey (ESS) for some European countries (Austria, Belgium, Denmark, Finland, Israel, the Netherlands, Norway and Sweden) complete this analysis. For the latter, the results for these countries should be interpreted with cautious due to the relative small sample sizes of this survey and the restriction applied as a consequence of small sample sizes for some categories (agriculture and persons aged 65 or more has been excluded).

Annex Table 2.B.1. Decomposition analysis: data sources

Country	Survey			Sample	Note	Trade union membership
	Name	Data type	Time period			
Australia	HILDA	Panel data	2001-2016	Employees aged 15 or more	Data adjusted on official TUD.	Trade union and other professional association membership (ABS definition only available since 2009)
Austria, Belgium, Denmark, Finland, Israel, Netherlands, and Norway	ESS	Social survey	2002-2016	Employees aged 15-64 excl. Agriculture	Data adjusted on official TUD.	Trade union density relatively consistent with official data
Canada	LFS	Labour force survey	1997-2015	Employees (excl. ISE) aged 15 or more	International definition of employees (CISE-93) includes incorporated self-employed (ISE).	Trade union membership (consistent with official data)
Germany	SOEP	Panel data	1998-2015	Employees aged 15 or more	Data adjusted on official TUD.	Trade union density relatively consistent with official data
Ireland	QNHS	Labour force survey	2003-2017	Employees aged 15 or more		Trade union membership (consistent with official data)
Korea	KLIPS	Panel data	2002-2016	Employees aged 15 or more	Data adjusted on official TUD.	Trade union density relatively consistent with official data
Mexico	ENIGH	Household panel data	1984-2004	Employees aged 15 or more	Sector is available in 1992-2002 only.	Trade union membership (consistent with official data)
	ENOE	Labour force survey	2005-2018	Employees aged 15 or more		
United Kingdom	BHPS	Panel data	1994-2007	Employees aged 16 or more	Data adjusted on official TUD.	Trade union density relatively consistent with official data
	UKLFS	Labour force survey	2007-2017	Employees aged 16 or more		Trade union membership (consistent with official data)
United States	CPS-MORG	Labour force survey	1983-2018	Employees (excl. ISE) aged 16 or more	International definition of employees includes incorporated self-employed (ISE).	Trade union membership (consistent with official data)

Note: BHPS: British Household Panel Survey; CPS-MORG: Current Population Survey Merged Outgoing Rotation Groups; ENIGH: Encuesta Nacional de Ingresos y Gastos de los Hogares; ENOE: Encuesta Nacional de Ocupación y Empleo; ESS: European Social Survey; HILDA: Household Income and Labor Dynamics in Australia; KLIPS: Korean Labor and Income Panel Survey; LFS: Labour Force Survey; QNHS: Quarterly National Household Survey; SOEP: Socio-Economic Panel. ISE: Incorporated self-employed.

As indicated in Annex 2.A, the analysis includes the main dimensions of employment that potentially drive the change in trade union density. However, all of these dimensions are not always available in the survey or are only available for a limited number of years. While almost all countries include the demographic variables, migration status (based on country of birth), temporary employment, job tenure, public sector, firm size and the quintiles of the hourly wage are frequently absent (Annex Table 2.B.1 and Annex Table 2.B.2). For the purposes of the analysis and to take into account as many dimensions as possible, the period covered for some countries has been restricted: this is the case for Germany and Korea to integrate temporary employment, reducing the analysis to the period 1998-2015 instead of 1985-2015 and to the period 2002-16 instead of 1998-2016, respectively.

Another issue relates to the comparability of some variables over time due to a change in classification as for educational attainment, industry or occupation. The data for the United States are clearly affected by this problem given the long period covered by the CPS-MORG (1983-2018). In particular, both industry and occupation classifications changed at the turn of the century: in this case, a simple mapping based on years 2000-02 (for these years, variables are double coded into both classifications) has been applied

to maintain the comparability over time. The same problem arise with the countries covered by the European Social Survey (industry classification changed in 2008 from NACE Rev. 1.1 to NACE Rev. 2 and occupation in 2012 for ISCO-88 to ISCO-08). Nevertheless, as the number of observations is too small to conduct the analysis on detailed categories of industry and occupation, both variables have been recoded into broad categories that limits the effects of breaks in series.

Annex Table 2.B.2. Variable definition: demographics and atypical employment

Country	Data source	Demographics			Atypical employment		
		Gender	Age groups	Education	Contract duration (temporary/ permanent)	Contract (FT/PT national definition)	Job tenure
Australia	HILDA	●	●	●	●	●	●
Austria, Belgium, Denmark, Finland, Israel, Netherlands and Norway	ESS	●	●	●	●	●[1]	
Canada	LFS	●	●	●	●	●	●
Germany	SOEP	●	●	●	●[2]	●	●
Ireland	QNHS	●	●	●	●	●	●
Korea	KLIPS	●	●	●	●[2]	●	●
Mexico	ENIGH	●	●	●	●	●[1]	
	ENOE	●	●	●	●	●[1]	●
United Kingdom	BHPS	●	●	●	●	●	●
	UKLFS	●	●	●	●	●	●
United States	CPS-MORG	●	●	●[3]		●	

Note: BHPS: British Household Panel Survey; CPS-MORG: Current Population Survey Merged Outgoing Rotation Groups; ENIGH: Encuesta Nacional de Ingresos y Gastos de los Hogares; ENOE: Encuesta Nacional de Ocupación y Empleo; ESS: European Social Survey; HILDA: Household Income and Labor Dynamics in Australia; KLIPS: Korean Labor and Income Panel Survey; LFS: Labour Force Survey; QNHS: Quarterly National Household Survey; SOEP: Socio-Economic Panel.

1. Part-time defined as employees usually working less than 30 hours per week for countries covered by the ESS and usually working less than 35 hours per week for Mexico.
2. This variable is only available since 1996 for Germany and 2002 for Korea.
3. Educational attainment in five groups to be consistent over the entire period.

Annex Table 2.B.3. Variable definition: Job characteristics and other factors

Country	Data source	Job characteristics				Other factors	
		Industry[1]	Occupation[1]	Sector (public/private)	Firm size	Migrants	Quintiles of hourly earnings
Australia	HILDA	●	●	●	●	●	●[2]
Austria, Belgium, Denmark, Finland, Israel, Netherlands and Norway	ESS	●	●		●	●	
Canada	LFS	●	●	●	●		●
Germany	SOEP	●	●	●	●	●	●
Ireland	QNHS	●	●			●	
Korea	KLIPS	●	●	●	●		●
Mexico	ENIGH	●	●	●			●
	ENOE	●	●	●	●	●	●
United Kingdom	BHPS	●	●	●	●	●	●
	UKLFS	●	●	●	●	●	●
United States	CPS-MORG	●	●	●		●[3]	●[2]

Note: BHPS: British Household Panel Survey; CPS-MORG: Current Population Survey Merged Outgoing Rotation Groups; ENIGH: Encuesta Nacional de Ingresos y Gastos de los Hogares; ENOE: Encuesta Nacional de Ocupación y Empleo; ESS: European Social Survey; HILDA: Household Income and Labor Dynamics in Australia; KLIPS: Korean Labor and Income Panel Survey; LFS: Labour Force Survey; QNHS: Quarterly National Household Survey; SOEP: Socio-Economic Panel.

1. Break in series for countries covered by the ESS and the United States. Industries are classified into five broad industries: Manufacturing including mining and utilities, business services, public administration and other services and occupations into three groups: low-skilled occupations (codes 1, 2 and 3 of both ISCO-88 and ISCO-08), medium-skilled occupations (codes 4, 6, 7 and 8) and high-skilled occupations (codes 5 and 9) for the ESS countries. Industries are recoded into NAICS 2002 (Census codes) and SOC-2000 before 2000 for the United States.

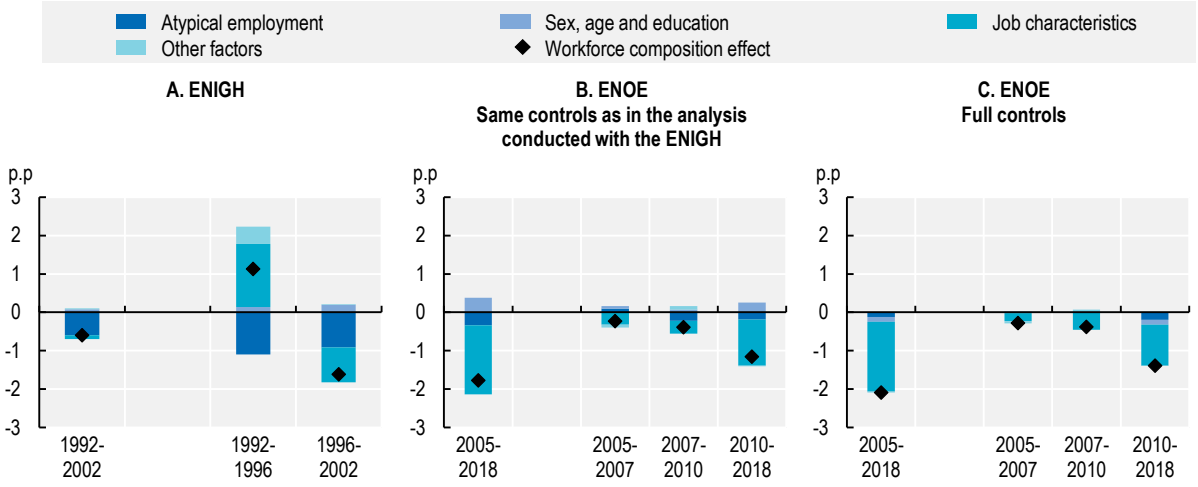
2. Variable based on gross weekly earnings.

3. Country of birth is only available since 1994. The inclusion of this additional control do not change significantly the decomposition over the period 1994-2018.

The decomposition analysis for Mexico and the United Kingdom are conducted on two sub periods based on two different surveys. While, the regressions are based on the same number of controls for the United Kingdom in both surveys, the analysis in Mexico for the period 1992-2002 (ENIGH) is based on a reduced number of controls. A simple comparison of the employment composition effects using the same number of controls based on the ENOE shows that the conclusion remains the same except that the demographic factors (gender, age and education) play a more significant and positive role (Annex Figure 2.B.1). In the case of the United States, the inclusion of migrant workers in the analysis for the period 1994-2018 does not really change the results (Annex Figure 2.B.2).

Annex Figure 2.B.1. Sensitivity analysis for Mexico

Percentage-points change in change in union density explained by workforce composition effect ("between effect")

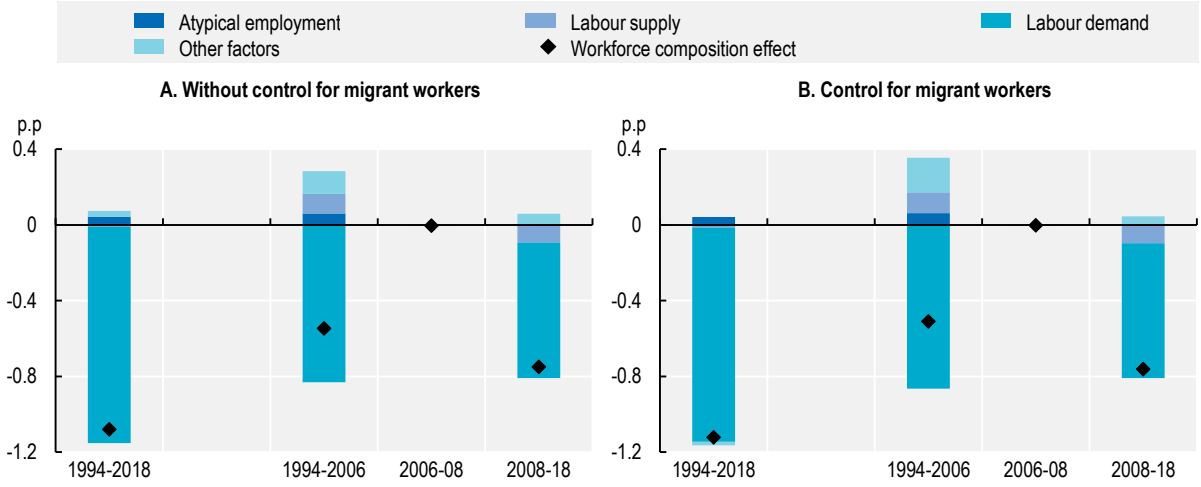


Note: Multivariate decompositions analysis based on probit regressions including control for sex (female), age groups, education, type of contract (part-time), contract duration (temporary jobs), occupation, industry, quintiles of the hourly earnings and sector (public sector) for ENIGH and migrant workers, job tenure and firm size for the ENOE. See Annex 2.A for further details on the methodology and Annex 2.B for details on definitions and variables included in the analysis.
Source: OECD Estimates based on the Encuesta Nacional de Ingresos y Gastos de los Hogares (ENIGH) in 1992-2002 and the Encuesta Nacional de Ocupación y Empleo (ENOE) in 2005-18.

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Annex Figure 2.B.2. Sensitivity analysis for the United States

Percentage-points change in change in union density explained by workforce composition effect ("between effect")



Note: Multivariate decompositions analysis based on probit regressions including control for sex (female), age groups, education, type of contract (part-time), occupation, industry, quintiles of the hourly earnings and sector (public sector). See Annex 2.A for further details on the methodology and Annex 2.B for details on definitions and variables included in the analysis.
Source: OECD Estimates based on the Current Population Survey Merged Outgoing Rotation Groups (CPS MORG).

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Annex 2.C. Decomposition analysis: Additional material

Annex Table 2.C.1. Change in workforce composition explains generally a small part of change in trade union density

Country	Period	Workforce composition effect ("between effect") Percentage-points change	Unionisation effect ("within effect") Percentage-points change	Change in union density Percentage-points change	Share of between effect Percentage of the change in union density
Australia	2001-16	0.7	-10.8	-10.1	6.0
Austria	2002-16	-4.1	-5.0	-9.0	44.9
Belgium	2002-16	-1.6	-1.2	-2.8	58.0
Canada	1998-2015	0.7	-2.5	-1.9	21.2
Denmark	2002-14	-1.1	-2.0	-3.2	35.5
Finland	2002-16	0.0	-8.7	-8.7	0.1
Germany	1998-2015	-0.8	-7.6	-8.4	9.7
Ireland	2003-17	2.2	-13.7	-11.5	13.9
Israel	2002-16	-6.8	-4.8	-11.6	58.8
Korea	2002-16	1.6	-2.9	-1.3	35.8
Mexico	1992-2002	-0.6	-5.7	-6.3	9.5
Mexico	2005-18	-2.1	-2.7	-4.8	43.7
Netherlands	2002-16	1.0	-5.3	-4.3	16.4
Norway	2002-16	1.1	-3.5	-2.4	24.0
United Kingdom	1994-2007	-0.1	-8.3	-8.4	0.6
United Kingdom	2007-17	-0.1	-4.7	-4.8	1.5
United States	1983-2018	-1.2	-8.2	-9.5	13.0

Note: Multivariate decompositions analysis based on probit regressions including control for sex (female), age groups, education, migrant workers, job tenure, type of contract (part-time), contract duration (temporary jobs), occupation, industry, quintiles of the hourly earnings, sector (public sector) and firm size. See Annex 2.A for further details on the methodology and Annex 2.B for details on definitions and variables included in the analysis.
Source: See Annex Table 2.B.1.

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Annex Table 2.C.2. Effect of various composition changes on trade union density

Percentage-points change in union density

Country	Period	Workforce composition effect ("between effect")	Atypical employment	Sex, age and education	Job characteristics	Other factors
Australia	**2001-2016**	**0.68**	**0.20**	**0.33**	**0.23**	**-0.07**
	2001-2005	0.60	0.06	0.06	0.45	0.03
	2005-2008	-0.14	0.29	0.09	-0.50	-0.01
	2008-2009	0.77	0.33	-0.02	0.47	-0.01
	2009-2010	-0.24	-0.07	0.03	-0.16	-0.03
	2010-2012	-0.35	-0.14	0.13	-0.30	-0.04
	2012-2014	-0.32	-0.08	0.02	-0.22	-0.03
	2014-2016	0.65	0.02	0.07	0.55	0.01
Austria	**2002-2016**	**-4.06**	**0.56**	**-0.13**	**-4.28**	**-0.22**
	2002-2004	1.53	-0.24	2.66	-1.66	0.77
	2006-2014	-0.90	5.42	-1.18	-1.21	-3.94
	2014-2016	-0.44	0.08	0.20	-0.86	0.13
Belgium	**2002-2016**	**-1.64**	**-0.16**	**0.61**	**-1.77**	**-0.32**
	2002-2004	-1.56	0.09	-0.48	-1.10	-0.06
	2004-2006	-1.82	0.00	-0.62	-1.20	0.00
	2006-2010	0.58	-0.05	-0.24	0.72	0.15
	2010-2012	-0.82	0.04	-0.28	-0.49	-0.10
	2012-2016	1.00	0.02	0.13	0.80	0.06
Canada	**1998-2015**	**0.68**	**0.06**	**-0.07**	**0.69**	**0.00**
	1998-1999	-0.10	-1.16	-0.14	1.84	-0.63
	1999-2001	0.11	-0.02	-0.01	0.12	0.02
	2001-2003	0.11	0.09	-0.03	0.27	-0.22
	2003-2008	0.04	-0.02	-0.02	0.02	0.07
	2008-2012	0.47	0.24	-0.02	0.35	-0.09
	2012-2015	0.01	0.00	0.00	0.00	0.00
Denmark	**2002-2014**	**-1.12**	**-0.69**	**0.58**	**-0.75**	**-0.27**
	2002-2008	-5.43	-1.26	-3.20	-0.63	-0.35
	2008-2012	1.24	0.02	1.62	-0.55	0.16
	2012-2014	-0.16	0.12	0.11	-0.35	-0.04
Finland	**2002-2016**	**0.01**	**-0.01**	**0.07**	**-0.04**	**-0.01**
	2002-2014	-1.25	0.00	1.17	-2.08	-0.33
	2014-2016	-0.34	-0.43	0.00	-0.03	0.12
Germany	**1998-2015**	**-0.81**	**-0.42**	**0.37**	**-0.65**	**-0.11**
	1998-2007	-0.51	0.01	-0.09	-0.39	-0.03
	2007-2015	-0.60	-0.23	0.25	-0.55	-0.07
Ireland	**2003-2017**	**2.21**	**1.86**	**0.31**	**1.35**	**-1.31**
	2003-2007	-0.36	-0.49	0.09	0.58	-0.53
	2007-2009	2.25	1.21	0.33	0.77	-0.06
	2009-2011	1.52	1.08	0.11	0.34	-0.02
	2011-2015	0.20	-1.09	0.05	1.11	0.13
	2015-2017	-0.55	-0.19	0.02	-0.22	-0.16
Israel	**2002-2016**	**-6.81**	**-0.94**	**-0.04**	**-6.13**	**0.30**
	2002-2012	-11.30	-4.98	-2.66	-3.40	-0.26
	2012-2016	0.85	-0.26	4.36	-3.37	0.12

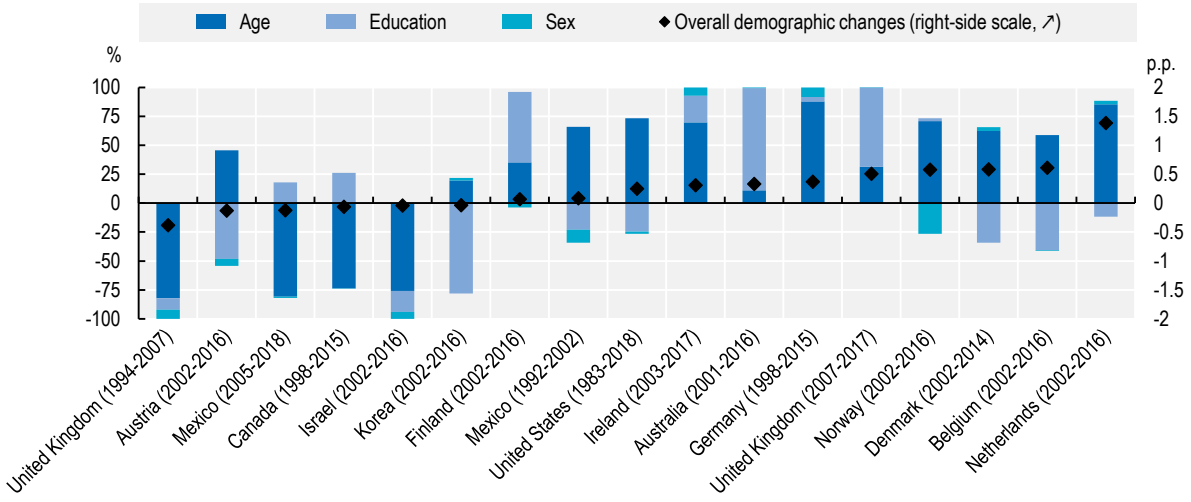
Country	Period	Workforce composition effect ("between effect")	Atypical employment	Sex, age and education	Job characteristics	Other factors
Korea	**2002-2016**	**1.60**	**1.37**	**-0.04**	**0.13**	**0.14**
	2002-2005	0.89	0.55	-0.46	0.80	0.00
	2005-2007	0.14	-0.02	-0.02	0.13	0.05
	2007-2010	-0.33	1.81	-0.38	-1.90	0.14
	2010-2013	0.31	0.40	-0.23	0.07	0.07
	2013-2016	-0.02	-0.01	-0.01	-0.01	0.00
Mexico (ENIGH)	**1992-2002**	**-0.60**	**-0.60**	**0.08**	**-0.10**	**0.02**
	1992-1996	1.13	-1.10	0.14	1.65	0.45
	1996-2002	-1.61	-0.92	0.19	-0.91	0.02
Mexico (ENOE)	**2005-2018**	**-2.09**	**-0.12**	**-0.13**	**-1.82**	**-0.02**
	2005-2007	-0.28	0.00	-0.02	-0.21	-0.06
	2007-2010	-0.38	-0.01	0.00	-0.44	0.07
	2010-2018	-1.39	-0.20	-0.13	-1.06	0.00
Netherlands	**2002-2016**	**1.04**	**-0.48**	**1.38**	**0.13**	**0.02**
	2002-2004	0.85	-0.22	1.10	0.05	-0.08
	2004-2008	0.78	0.19	0.40	0.19	0.00
	2008-2010	1.08	-0.62	0.51	1.16	0.03
	2010-2016	1.39	-0.03	0.47	0.97	-0.03
Norway	**2002-2016**	**1.10**	**0.18**	**0.58**	**0.23**	**0.11**
	2002-2006	1.10	-0.73	1.15	0.74	-0.06
	2006-2008	0.46	0.27	0.51	0.11	-0.42
	2008-2010	-0.32	1.86	0.56	-2.56	-0.19
	2010-2012	-0.83	-0.73	-0.28	0.35	-0.17
	2012-2014	2.54	1.02	0.93	0.73	-0.13
	2014-2016	-0.90	-0.11	0.25	-0.95	-0.10
United Kingdom (BHPS)	**1994-2007**	**-0.05**	**-0.19**	**-0.38**	**0.48**	**0.04**
	1994-1997	-2.18	0.01	0.00	-2.10	-0.10
	1997-2007	1.60	0.25	0.62	0.68	0.05
United Kingdom (LFS)	**2007-2017**	-0.07	0.23	0.51	-0.65	-0.17
United States	**1983-2018**	**-1.23**	**0.20**	**0.25**	**-1.73**	**0.05**
	1983-1993	-0.80	0.10	-0.09	-0.84	0.01
	1993-2006	-0.68	0.10	0.15	-1.06	0.13
	2006-2008	0.00	0.00	0.00	0.00	0.00
	2008-2018	-0.75	0.00	-0.09	-0.72	0.06

Note: Multivariate decompositions analysis based on probit regressions including control for sex (female), age groups, education, migrant workers, job tenure, type of contract (part-time), contract duration (temporary jobs), occupation, industry, quintiles of the hourly earnings, sector (public sector) and firm size. See Annex 2.A for further details on the methodology and Annex 2.B for details on definitions and variables included in the analysis.
Source: See Annex Table 2.B.1.

StatLink http://dx.doi.org/10.1787/888934027361

Annex Figure 2.C.1. Effects of demographic changes are generally small

Percentage-points change in union density explained by changes in sex, age and education ("between effect")

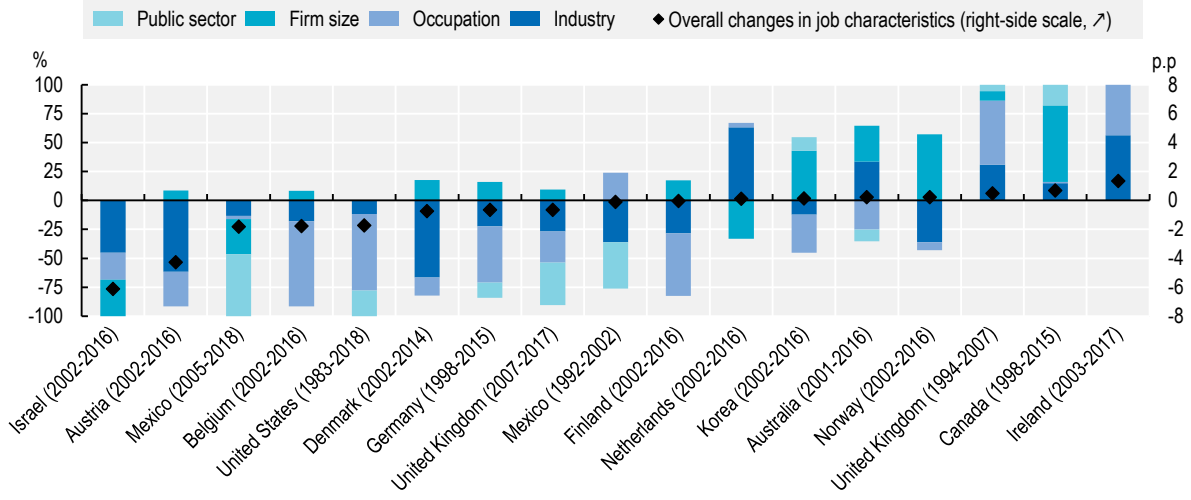


Note: Multivariate decompositions analysis based on probit regressions including control for sex (female), age groups, education, migrant workers, job tenure, type of contract (part-time), contract duration (temporary jobs), occupation, industry, quintiles of the hourly earnings, sector (public sector) and firm size. See Annex 2.A for further details on the methodology and Annex 2.B for details on definitions and variables included in the analysis. Diamonds represent the contribution of overall demographic change to the change in union density ("between effect"). This overall contribution is decomposed in the relative effect of changes in sex, age and education (bars).
Source: See Annex Table 2.B.1.

StatLink http://dx.doi.org/10.1787/888934027228

Annex Figure 2.C.2. Effects of job characteristics are generally small

Percentage-points change in union density explain by changes in job characteristics ("between effect")

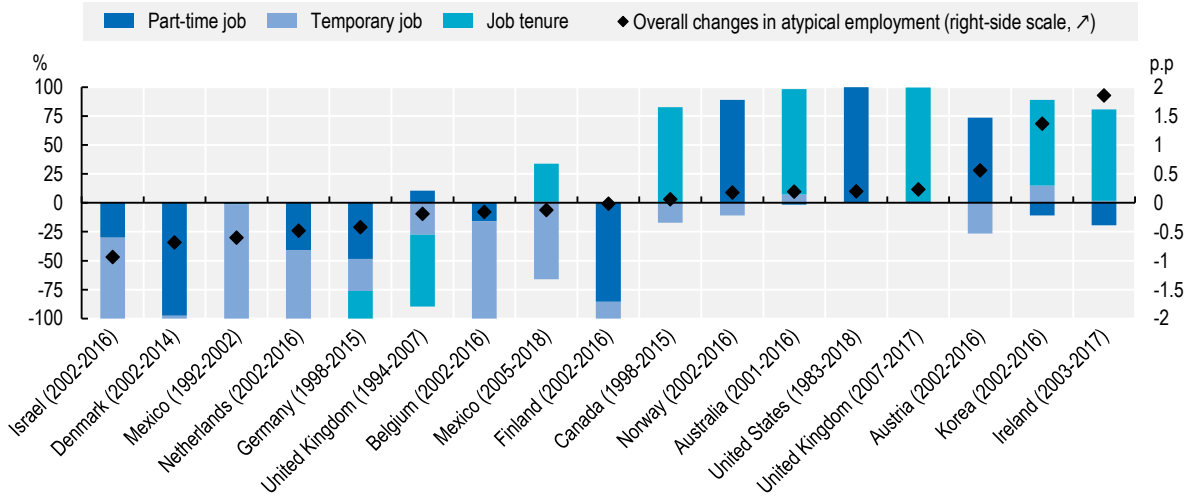


Note: Multivariate decompositions analysis based on probit regressions including control for sex (female), age groups, education, migrant workers, job tenure, type of contract (part-time), contract duration (temporary jobs), occupation, industry, quintiles of the hourly earnings, sector (public sector) and firm size. See Annex 2.A for further details on the methodology and Annex 2.B for details on definitions and variables included in the analysis. Diamonds represent the contribution of changes in job characteristics to the change in union density ("between effect"). This overall contribution is decomposed in the relative effect of changes in public sector, firm size, occupation and industry (bars).
Source: See Annex Table 2.B.1.

StatLink http://dx.doi.org/10.1787/888934027247

Annex Figure 2.C.3. Effects of non-standard forms of employment are generally small

Percentage-points change in union density explained by changes in atypical employment ("between effect")



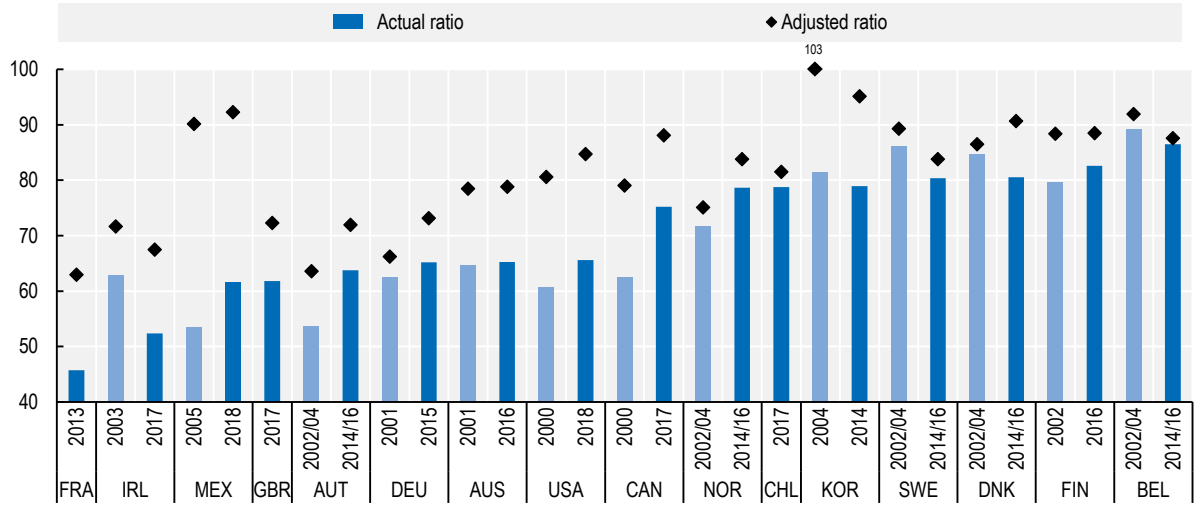
Note: Multivariate decompositions analysis based on probit regressions including control for sex (female), age groups, education, migrant workers, job tenure, type of contract (part-time), contract duration (temporary jobs), occupation, industry, quintiles of the hourly earnings, sector (public sector) and firm size. See Annex 2.A for further details on the methodology and Annex 2.B for details on definitions and variables included in the analysis. Diamonds represent the contribution of changes in atypical employment to the change in union density ("between effect"). This overall contribution is decomposed in the relative effect of changes in part-time jobs, temporary jobs and job tenure (bars).
Source: See Annex Table 2.B.1.

StatLink http://dx.doi.org/10.1787/888934027266

Annex 2.D. Additional material on youth and collective actions

Annex Figure 2.D.1. Trend in union density among youth aged 20-34 in selected OECD countries

Young-to-adults ratio of union density, 2000's and latest year available (%)



Note: The adjusted ratio for individual characteristics is based on the marginal effect of youth (aged 20-34) relatively to adults (aged 35-54) from a probit regression controlling for temporary job (excepted for the United States), sex, educational levels, industry, public vs private sector (except for Austria, Belgium, Ireland, Norway and Sweden), occupation, firm size (except for the United States) and full-time vs. part-time employment. Youth in education have been excluded in the different samples used in the regressions (although this was not possible for Finland, the United States, and countries with estimates based on the European Social Survey as a source). Countries are ordered by ascending order of the actual ratio for the latest year available.

Source: OECD estimates based on the Household, Income and Labour Dynamics in Australia (HILDA) for Australia, the labour force survey (LFS) for Canada, the Encuesta de Caracterización Socioeconómica Nacional (CASEN) for Chile, the Finnish Working Life Barometer (FWLB) for Finland, the Enquête statistique sur les ressources et conditions de vie (SRCV) for France, the German Socio-Economic Panel (SOEP) for Germany, the Quarterly National Household Survey (QNHS) for Ireland, the Korean Labor and Income Panel Study (KLIPS) for Korea, the Encuesta Nacional de Ocupación y Empleo (ENOE) for Mexico, the Labour Force Survey (LFS) for the United Kingdom, the Current Population Survey (CPS), May Supplement for the United States and the European Social Survey (ESS) for Austria, Belgium, Denmark, Norway and Sweden.

StatLink http://dx.doi.org/10.1787/888934027285

Statistics shown in Figure 2.6 Panels A and B are based on the occurrence of “individual freedom” and “solidarity and support for others” taken from the list of the three most important personal values of youth aged 20-34 and adults aged 35-54. The Question is labelled as follows in the Eurobarometer: “In the following list, which are the three most important values for you personally?”

Statistics reported in Figure 2.6 Panels C and D are calculated as the proportion of youth aged 20-34 and adults aged 35-54 who declared either that they engaged in the past / in the recent past / or that they would in the future engage in the following actions: attending a demonstration, donating money or raising funds for a particular social or political cause. The question in the ISSP 2014, Citizen Module II is labelled as follows: “Here are some different forms of political and social action that people can take. Please indicate, for each one, whether you have done any of these things in the past year, whether you have done it in the

more distant past, whether you have not done it but might do it or have not done it and would never, under any circumstances, do it". For the two following forms or political and political actions: "Took part in a demonstration (any kind of demonstration)" and "Donated money or raised funds for a social or political activity".

Figures on perceived necessity of trade unions (Figure 2.7, Panel B) refer to the share of persons who consider that "workers needs strong trade unions to protect their interest". For the United States, this corresponds to the percentage of persons feeling that the decline in union representation over the last 20 years has been mostly bad for working people ("As you may know, over the past twenty years there has been a large reduction in the percentage of workers who are represented by unions. Do you think this reduction in union representation has been mostly good for working people or mostly bad for working people?"). Age groups correspond to persons aged 20-34 for youth and aged 35-54 for the adults, except for Denmark (26-35 and 36-55, respectively). Belgium refers to Flanders only.

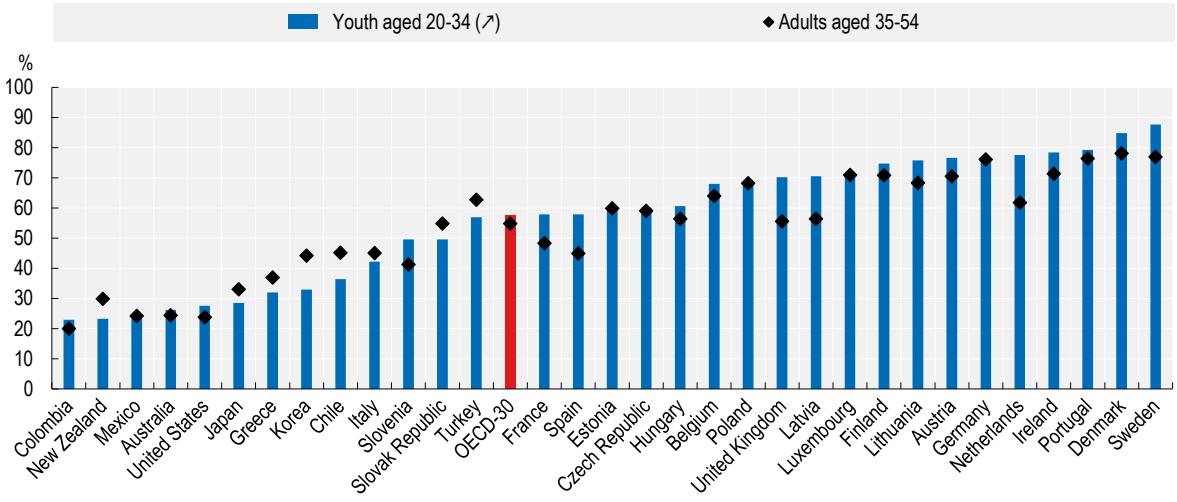
Trust and perceived necessity of trade unions

Annex Table 2.D.1. Trust in trade unions: Sources and definitions

Country	Source	Year	Question used	Possible answers	Statistics reported (% of persons)
Australia	Australian Election Study	2016	How much confidence do you have in trade unions?	Scale in four categories: 1. A great deal of confidence; 2. Quite a lot of confidence; 3. Not very much confidence; 4. None at all	A great deal or quite a lot of confidence
Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Turkey and the United Kingdom	Eurobarometer 89.1	2018	Could you please tell me for trade unions, whether the term brings to mind something very positive, fairly positive, fairly negative or very negative?	Scale in four categories: 1. Very positive; 2. Fairly positive; 3. Fairly negative; 4. Very negative	Very positive or fairly positive
Chile, Colombia, Japan, Korea, Mexico, New Zealand and the United States	World value Survey	2010 (JPN, KOR); 2011 (CHL, NZL, USA); 2012 (COL, MEX)	How much confidence you have in labour unions?	Scale in four categories: 1. A great deal of confidence; 2. Quite a lot of confidence; 3. Not very much confidence; 4. None at all	A great deal or quite a lot of confidence

Annex Figure 2.D.2. Trust in trade unions

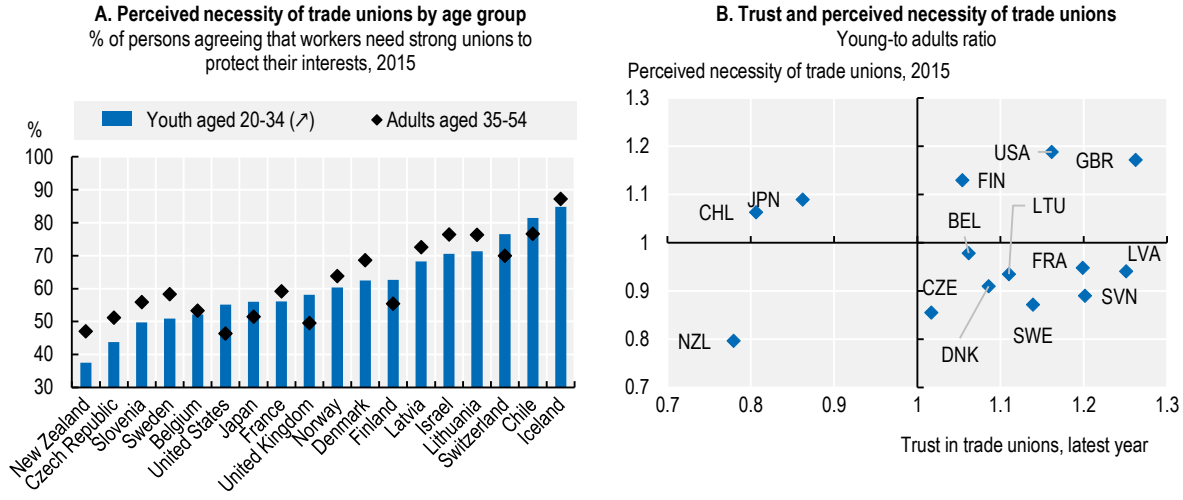
Percentage of population by age group



Note: For further details, see Annex Table 2.D.1. OECD-30 is the unweighted average of countries shown (not including Canada, Colombia, Iceland, Israel, Norway and Switzerland).
Source: OECD calculations based on the Australian Election Study (AES) for Australia, Eurobarometer 89.1, March 2018 for the European countries, and the World Value Survey (WVS) for all other countries.

StatLink http://dx.doi.org/10.1787/888934027304

Annex Figure 2.D.3. Perceived necessity and trust in trade unions



Note: Youth refers to persons aged 20-34 and adults to those aged 35-54, except for Denmark (26-35 and 36-55, respectively). Belgium refers only to Flanders. For further details on trust in trade unions, see Annex Table 5.B.1.
Source: OECD calculations based on the International Social Survey Programme (ISSP) 2015, Work orientation module IV and the Pew Research Center, March 2015 Political Survey for the United States.

StatLink http://dx.doi.org/10.1787/888934027323

Notes

[1] Estimate based on collective bargaining coverage rate and total number of employees from OECD ALFS.

[2] In this report, “firm” and “company” are used interchangeably.

[3] Social dialogue comprises collective bargaining, workers’ voice, as well as social partners’ lobbying and engagement in tripartite negotiation/ consultation surrounding national legislation. The last one is not a focus of this report.

[4] This is adapted from Visser (2016[47]).

[5] In this report, “plant”, “establishment” and “workplace” are used interchangeably.

[6] Another important country variation comes from the comparison of trends in union membership and union density. In some countries, the decline in density is only relative: the share of unionised workers in the total working population is falling, while union membership is stable or even increasing in absolute terms. These cases might stem from employment growth outpacing unionisation; or density might increase following a recession if mostly non-unionised jobs disappear. For instance, the increase in trade union density in Spain during the early phase of the financial crisis is likely to amount to a composition effect. The destruction of jobs in 2008-10 was mainly in temporary employment, where union density is lower. The destruction of these less unionised jobs could explain the increase in overall union density over the period. In other cases, the trends in union density and union membership align downwards: there, the fall in density might indeed correspond to a decrease in union membership.

[7] The dramatic trends observed in Central and Eastern European countries must be understood in the context of the fall of central planning.

[8] Already in 1991, research by the OECD concluded, based on shift-share analyses covering the 1970s and 1980s, that “the change in aggregate unionisation rates resulting from changes in the structure of employment (…) only accounts for a small part of the decline” (OECD, 1991[22]). These results are consistent with results presented in this chapter, covering the 1990s and 2000s (see Section 2.3). However, the notion that structural shifts and in particular industrial composition is a major driver of union density decline is a die-hard one: despite mounting evidence to the contrary, it remains strongly engrained in public opinion and keeps infusing policy discussion of the issue.

[9] Examples of union-managed insurance funds include e.g. the “Ghent” unemployment systems in countries like Denmark, Finland, Iceland, Sweden, Norway and Belgium - which has a quasi-Ghent system since the government also plays a role in administering unemployment insurance, or the health insurance system in Israel before 1995.

[10] Although available data on trade union density goes back to the 1960s, data limitations for other macro-level covariates significantly reduce the maximum period of analysis. At best, a macro-level regression analysis covers the 1985-2013 period. This is reduced to 1993-2013 when including control variables for

education and occupation. The number of years covered by the macro-level regression is thus very limited for some countries.

[11] Despite data limitations highlighted in endnote 10, an exploratory macro-level analysis was conducted, testing for several specifications. Only a very small number of results were robust to basic changes in specification (adding controls or using different variable definitions). In addition, to test the possibility that independent variables had differentiated effects for different groups of countries, interactions between independent variables and dummies for particular country groupings were introduced. Results were not robust to the introduction of these interactions. In other words, this exploratory macro-level analysis produced only volatile and unreliable results.

[12] The period of analysis varies from 1983 to 2018 for the United States, to 2002-2016 for some European countries.

[13] In the terminology of shift-share analyses, this is the "within groups" effect.

[14] The share of high-skilled workers increased by 8.6, 9.8, 7, 7.2, 21.3, 11.9, 15 and 23% for those countries, respectively.

[15] The share of youth employed (aged 15-24) decreased by 1.1, 3.4, 4.3 and 1.6%, respectively, while the share of older workers (aged 55-64) increased by 7.7, 4.8, 2.2 and 3.3%, respectively during the same periods.

[16] The share of small firms increased by 8% in Israel, the share of large firms increased by 0.2% in Mexico and the share of medium-sized firms by 2.5% in the Netherlands.

[17] The fall in the share of public sector employment was relatively modest in Australia (-0.3%), Germany (-1.7%) and the United States (-1.6%) but relatively sizeable in, the United Kingdom (-3.2%) between 2007 and 2017. In Mexico public sector employment decreased by 0.08%between 1992 and 2002 and by 0.97% between 2007 and 2018.

[18] Between 1985 and 2015, the share of part-time workers has been rising in most OECD countries for which data are available. The increase was particularly sizable in some contexts, such as Austria (13%), Belgium (16.1%), Germany (15.2%), Ireland (16.4%), Italy (13.3%), Japan (10.9%), Luxembourg (11.6%), and the Netherlands (26.2%). The rise of part-time employment was more modest, but still important in Finland (7.3%), France (7.9%), the United Kingdom (5.5%), Greece (4.2%) and Korea (8.1%). The share of part-time workers only decreased in two of the countries for which data are available, namely Sweden and Norway.

[19] In average in OECD countries, the share of temporary workers increased from 9.2% in 1980 to 11.7% in 2018.

[20] Workers "socialised" in the 1970s are those who were in their 20s in the 1970s, and who therefore had their first formative experience in the labour market then. These experiences are likely to have influenced their opinions about labour market institutions.

[21] Collective bargaining coverage is usually computed as the number of employees covered by the collective agreement, divided by the total number of wage and salary-earners.

[22] In Germany, in order to prevent membership losses the German employer associations have created a special form of membership whereby companies are not bound by collective agreements (so called OT (*Ohne Tarifbindung)-Mitgliedschaft*), see Schulten and Bispinck (2014[70]).

[23] Functional equivalent to extensions are legal provisions that make agreements valid for all firms and workers (such as in Iceland, Italy and Spain) but, in a way, also compulsory membership to an employer association as in Austria.

[24] The increasing fuzziness around the definition of "employer", "employee" and "place of work" is a challenge for the capacity of extensions to be an effective tool to guarantee fairness and a level-playing field.

[25] Available at the following link http://www.oecd.org/employment/collective-bargaining.htm.

[26] Visser (2018[50]) reports that it was used only once in 2004 but the government had to back down under pressure.

[27] The exemption is subject to have concluded a firm-level agreement with a union.

[28] In practice, two years after the reform, nothing has changed and extensions are still de facto automatic. No extension has been refused and no agreement has included different provisions for large and small firms.

[29] The IAB Establishment Panel data allow identifying firms engaging in multi- or single-employer collective bargaining and firms simply orienting themselves to a sectoral agreement.

[30] In Australia a collective agreement continues to apply until it is terminated or replaced.

[31] Available at the following link http://www.oecd.org/employment/collective-bargaining.htm

[32] But this may be driven by some outliers, i.e. few agreements not renewed since many years.

[33] As a result of unions' opposition to full decentralisation and employer associations (dominated by large firms) resistance to more competition in wage setting. And also because of lack of capacity and worker representation to negotiate firm-level agreements.

[34] Occupational and regional (state, provincial) bargaining level play more minor role and are a variant of sectoral bargaining: regional level is relevant in Austria, Germany, Spain and France, but adds little to decentralisation in these countries, since bargained wage rates tend to be harmonised across regions in the same sector. There has been also recently a move towards integration of blue-and white collar agreements.

[35] The hierarchy between standards principle states that: i) legislation and regulations take precedence over collective agreements; ii) national, cross-sectoral agreements take precedence over sectoral agreements, and sectoral over firm-level agreements.

[36] Available at the following link http://www.oecd.org/employment/collective-bargaining.htm

[37] In the case of Italy there is a tension between the rules set by social partners autonomously, which define a hierarchical relationship between bargaining levels, and jurisprudence, according to which a firm-level agreement can always depart from sectoral agreements.

[38] Australia's enterprise level agreement arrangements are underpinned by a safety net of minimum employment entitlements and condition.

[39] Except for Quebec where it always applies and is established in Labour Law.

[40] The term “opening clause” comes from the German term Öffnungsklausel where, since the 1990s they have been increasingly used.

[41] In the Netherlands, for instance, derogations are used with the stated aim of not undermining the currently favourable support for the extensions of sectoral agreements.

[42] And are still, under the German Law, only allowed when the bargaining partners explicitly make provisions for them.

[43] Traxler (2003[93]) developed the “contingency thesis of collective bargaining” which states that the performance of a collective bargaining system critically hinges on the ability to enforce the terms of agreements.

[44] Available at the following link http://www.oecd.org/employment/collective-bargaining.htm

[45] Gould and Hijzen (2016[115]) provide evidence for the United States and European Union countries that increasing inequality undermines trust.

[46] Moreover, in the European Union, European Works Councils can be established, upon the initiative of the employer or the employees, in multinationals operating in more than two countries of the European Economic Area if they employ at least 1 000 employees in the EEA and at least 150 employees in two member states.

[47] Ideally, analyses of the effect of various forms of workers’ voice should take account of this variation in the rights granted to representative institutions, to arrive at nuanced and precise assessments. Unfortunately, comparative data with this level of precision are largely missing. Further data collection efforts on this dimension are needed.

[48] Ideally, analyses of the effect of representative voice should take account of structures existing at the workplace *and* at the company level. However, data on this issue at the firm and worker level are not available for a large number of countries. Further work in this area, both in terms of data collection and analysis, would be welcome.

[49] An extensive review of the literature by Conchon (2011[111]) of the impact of board-level employee representation on company performance (mainly based on studies in Germany) shows that there is no clear correlation (nor causal evidence) between the presence of board-level employee representatives and better or worse company performance.

[50] Available at the following link http://www.oecd.org/employment/collective-bargaining.htm

[51] For instance in Germany, in firms with more than 500 employees, more than 300 employees in Austria, more than 35 employees in Denmark, more than 30 employees in Norway and more than 25 employees in Sweden.

[52] The adjective “regular” is of importance here: “direct voice”, as conceptualised in this report, should not be confused with freedom of speech at the workplace. Rather, it corresponds to cases where workers’ voice takes the form of institutionalised, regular meetings between employers and workers, which purpose is that workers express their concerns. The contrast with representative forms of voice comes from the presence or absence of a representative *intermediary* between workers and managers. The distinction between direct and representative forms of voice is a regular feature in the literature – see e.g. Duran and Corral (2016[116]), Gallie and Zhou (2013[117]), Bryson et al. (2013[108]).

[53] Beyond this descriptive interest, it also provides analytical leverage in trying to measure the effect of workers' voice arrangements on a variety of outcomes in a fine-grained manner.

[54] Therefore, the average of 52% of European workers with access to representative voice depicted in Figure 2.16 corresponds to the total of 37% of workers with access to "mixed voice" and 18% with access to solely representative voice.

[55] Data from the European Working Condition Survey for 2010 and 2015. Proportions are calculated over the pooled data for both years, excluding non-OECD countries from the list of countries covered in EWCS, and using individual weights

3 The role of collective bargaining systems for labour market performance

Oliver Denk, Andrea Garnero, Alexander Hijzen and Sébastien Martin

This chapter assesses the role of collective bargaining for labour market performance in OECD countries. It builds on the detailed characterisation of collective bargaining systems and practices presented in the previous chapter. Using a rich mix of country-, sector-, firm- and worker-level data, this chapter investigates the link of different collective bargaining settings with employment, wages, wage inequality and productivity. It then discusses how broad-based employee and employer organisations, administrative extensions, organised forms of decentralisation and wage co-ordination may contribute to better balance inclusiveness and flexibility in the labour market.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

In Brief

Key findings

This chapter provides an assessment of the role of collective bargaining systems for labour market performance and inclusive growth. It looks at how collective bargaining matters for some of the policy objectives that policy makers and citizens care most about: employment, wages, inequality and productivity. The chapter brings empirical analyses, using the best macro- and micro-data available and the characterisation of collective bargaining systems developed in the previous chapter, together with country experiences and case studies to support policy makers and social partners themselves in identifying directions for reform.

The main elements that are used in this chapter to characterise collective bargaining systems are the following:

- Collective bargaining coverage – the share of workers covered by collective agreements – which is linked to membership of signatory employer organisations and trade unions, but also to extensions of agreements to other firms and workers in a sector.
- The level of bargaining at which collective agreements are negotiated: firm level, sectoral level or even national level. Multi-level bargaining involves a combination of firm- and higher-level collective bargaining.
- The degree of flexibility for firms to modify the terms set by higher-level agreements. This ranges from centralised systems, in which there is little or no room for firms to derogate from sectoral or national-level agreements, to fully decentralised systems, where collective bargaining can take place only at the firm level. Between these two extremes, organised decentralisation allows sectoral agreements to set broad framework conditions but leaves detailed provisions to firm-level negotiations.
- The role of wage co-ordination between sectoral (or firm-level) agreements, such as the setting of common wage targets, to take account of macroeconomic conditions. Co-ordination might also occur as regards working conditions, for example training and occupational health and safety.

The main empirical findings are as follows:

- At the individual level (within countries), there is a wage premium for employees who are covered by firm-level bargaining compared with those not covered or those covered only by sectoral bargaining.
- Comparing collective bargaining systems across countries, co-ordinated systems – including those characterised by organised decentralisation – are linked with higher employment and lower unemployment (also for young people, women and low-skilled workers) than fully decentralised systems. Predominantly centralised systems with no co-ordination are somewhat in between.
- Collective bargaining also tends to affect wage dispersion, with greater dispersion in systems with no collective bargaining or where firms set wages independently. By contrast, wage dispersion is on average smallest among workers who are covered by sectoral bargaining. The lower dispersion in wages associated with sectoral bargaining in part reflects lower returns to education, seniority and potential experience for workers covered by collective agreements.

- The effect on wages also transits through the relationship of collective bargaining with productivity growth. Centralised bargaining systems tend to be associated with lower productivity growth if coverage of agreements is high. This result suggests that the lack of flexibility at the firm level, which characterises centralised bargaining systems, may come at the expense of lower productivity growth. By contrast, higher coordination in decentralised systems is not found to have adverse effects on productivity.
- Many OECD countries have taken steps towards decentralisation in the past two decades. Overall, organised decentralisation as described above tends to deliver good employment performance, better productivity outcomes and higher wages for covered workers. By contrast, other forms of decentralisation that simply replace sectoral with firm-level bargaining without co-ordination within and across sectors tend to be associated with somewhat poorer labour market outcomes.

The chapter also provides a detailed discussion of how wage co-ordination works and the features that make organised decentralisation capable to simultaneously achieve good labour market outcomes, provide some flexibility to firms and support adaptability to structural change. The main conclusions are:

- Co-ordination in wage bargaining helps take into account the macroeconomic effects of wage agreements by ensuring that these agreements do not undermine external competitiveness and are set in line with the business-cycle situation. This may be one factor behind the empirical association of co-ordinated systems with higher aggregate employment. The strongest form of wage co-ordination establishes a wage norm that defines the maximum for the collectively-agreed wage increase in every sector.
- In countries where co-ordination works well, it tends to be strongly supported by employer associations since it moderated wage growth and trade unions since it ensured high levels of employment. To be effective, co-ordination requires strong and self-regulated social partners as well as effective mediation bodies.
- The effectiveness of the articulation of firm-level arrangements within framework agreements, which characterises organised decentralisation, hinges to an important extent on the degree of collective worker representation at the firm level.
- In some countries, trade unions and employer organisations engage in sectoral initiatives that aim to enhance labour market adaptability by facilitating job transitions and providing workers with the skills needed in a changing world of work.

Collective bargaining can only contribute to labour market inclusiveness and have a significant macroeconomic effect if it covers a large share of workers and companies:

- Well-organised trade unions and employer organisations with a broad support base tend to be the best way to attain high coverage. At sector level, they ensure representativeness in wage negotiations. At firm level, they are the basis for social dialogue between workers and employers.
- In systems with sectoral bargaining and no broad-based representation, administrative extensions can help cover companies and workers not participating in collective bargaining. To avoid harming the economic prospects of start-ups, small firms or vulnerable workers, extensions need to be well designed to ensure that the parties negotiating the agreements represent the collective interest of a large group of firms and workers. This can be achieved by subjecting extension requests to reasonable representativeness criteria and a meaningful test of public interest and providing well-defined procedures for exemptions and opt-outs of firms in case of serious economic hardship.

Introduction

This chapter provides new insights on the role of collective bargaining for good labour market performance. This assessment of collective bargaining contributed to the new *OECD Jobs Strategy* (OECD, 2018[1]), which identified three main policy goals for successful labour market policies: i) more and better jobs; ii) labour market inclusiveness; and iii) resilience and adaptability. Collective bargaining has the potential to play a central role in all three. The chapter considers a variety of outcomes related to good labour market performance, including employment, wages, inequality and productivity, while the role of collective bargaining for resilience was already investigated in OECD (2017[2]).

The chapter uses a variety of approaches including quantitative analyses and country case studies and mobilises both micro and macro data sources. The next section sets the scene by outlining a framework to illustrate how collective bargaining may matter for labour market performance and inclusive growth. Section 3.2 proceeds with a macroeconomic analysis of the role of collective bargaining for employment and inequality using a novel characterisation of collective bargaining systems. This allows going beyond previous macro-studies, which usually concentrated on the degree of collective bargaining coverage and the level of bargaining, by also taking account of the flexibility of firms to tailor the conditions of sectoral agreements to their needs and of the co-ordination of wages across bargaining units. Section 3.3 uses worker- and sector-level data to study the relationship of collective bargaining with wages, wage distribution and productivity, shedding light on some of the mechanisms behind the relationships found at the macro level. Drawing on a series of country case studies and the broader industrial relations literature, Section 3.4 discusses some policy options that social partners and governments may want to consider to make collective bargaining systems more flexible and more inclusive.

3.1. The role of collective bargaining for labour market performance: An overview

Collective agreements signed by employers and unions primarily determine wage levels (or wage increases) and non-wage working conditions, including working time, leave arrangements, training, employment protection, and health and safety provisions (Figure 3.1). Re-negotiations of contracts by particular firms or employees may increase wages above the rate agreed at higher levels (or, in some cases, reduce wages below the negotiated rate). Outcomes such as employment or productivity are usually not part of the collective agreement, although they may be taken into account in the negotiations. The way collective bargaining influences labour market performance depends on the bargaining strategies of social partners, the structure of product and labour markets and the nature of collective bargaining institutions.

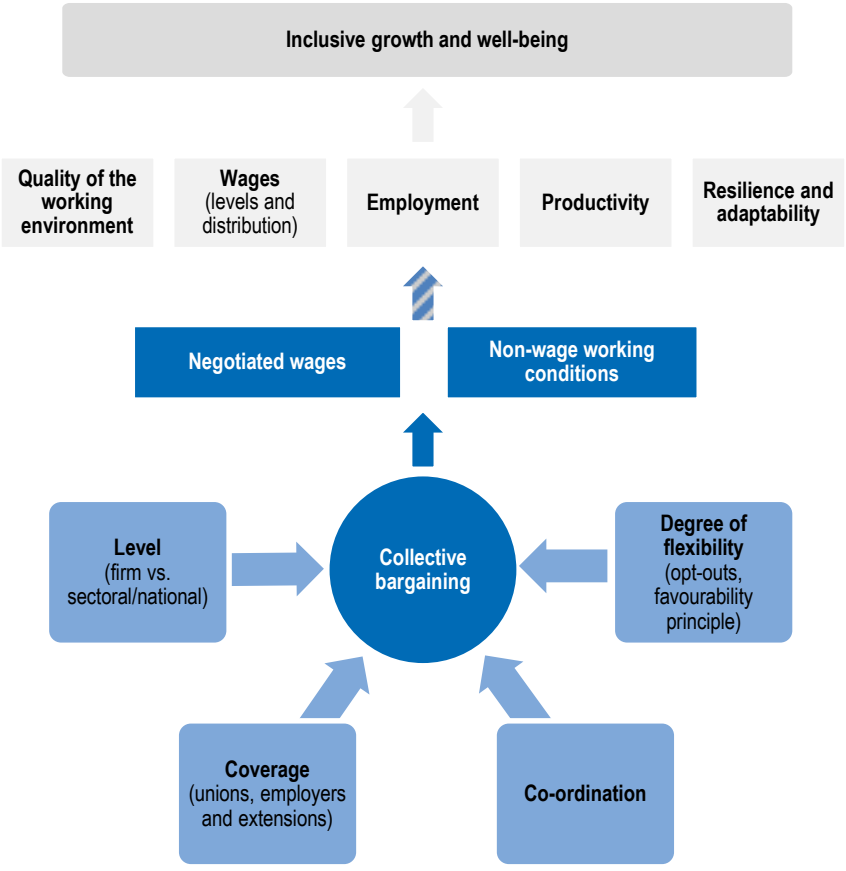
The academic literature has focused on two broad classes of bargaining strategies. In the so-called “right-to-manage” model (Leontief, 1946[3]), unions bargain exclusively over wages, leading to lower employment relative to the perfect competition benchmark. Union members, usually referred to as “insiders” in this literature, are viewed as gaining at the cost of “outsiders”, unemployed individuals or individuals in vulnerable jobs not covered by collective bargaining (Lindbeck and Snower, 1986[4]). The cause of the presumed inefficiency is that employment is not accounted for in the negotiations. This could have the additional downside of reducing the resilience of the labour market against adverse macroeconomic shocks.

In practice, however, unions might not only be concerned about wages but also employment and macroeconomic resilience. This has motivated the “efficient bargaining” model (McDonald and Solow, 1981[5]).[1] Furthermore and as mentioned in Chapter 2, the insider/outsider theory is not backed up by much empirical evidence.[2]

The effect of collective bargaining depends also on the structure of the market and the degree of competition. With perfect competition in product and labour markets, raising wages above the market equilibrium wage induces unemployment. However, when product market competition is imperfect

(i.e. when firms have some degree of monopoly or oligopoly power), higher wages may not induce greater unemployment but be simply the result of workers appropriating a greater share of the rents. Moreover, in imperfectly competitive labour markets, higher bargaining power and higher wage floors can increase employment. This would be the case in the presence of monopsony power, which enables firms to offer wages below the market wage, for example because workers have limited opportunities to change their employer or would incur high costs if they did so.[3]

Figure 3.1. Collective bargaining, labour market performance and inclusive growth



Finally, the role of collective bargaining for labour market performance also depends on the functioning of the institutional system. Chapter 2 documented that collective bargaining systems differ considerably across OECD countries, even among those sharing similar characteristics. For example, the systems in the Netherlands and Portugal[4] or those in Australia and the United States, although formally similar in many respects, differ substantially in the way they function. The main elements that are used in this chapter to characterise collective bargaining systems are the degree of coverage, the level of bargaining, the degree of flexibility and the role of wage co-ordination:

- Degree of coverage: Collective bargaining coverage, rather than only trade union density, is essential to measure the relevance of the system. Collective agreements covering a large share of workers can have a more sizeable macroeconomic effect – positive or negative – on employment, wages and other outcomes of interest than agreements confined to a few firms.
- Level of bargaining: This defines the unit at which parties negotiate and may refer to the firm, sector or country. Sectoral or national agreements can be expected to reduce wage inequality relative to decentralised systems, by lowering wage differentials not only between workers in the same firm, but also between workers in different firms and, in the case of national bargaining, in different

sectors. Firm-level agreements, by contrast, allow paying more attention to firm-specific conditions, potentially raising productivity.

- Degree of flexibility: Sectoral or national agreements may differ substantially in the degree of flexibility they provide to firms. For example, the possibility of opt-outs or leaving the application of the favourability principle to social partners can increase the flexibility of the system and allow for a stronger link between wages and firm performance, with on the upside higher employment and productivity, but on the downside higher wage inequality.
- Wage co-ordination: Wage co-ordination between sectoral agreements (or as in the case of Japan between firm-level agreements) helps negotiators internalise the macroeconomic effects of the terms set in collective agreements. This is typically achieved by keeping wage increases in the non-tradable sector in line with what can be afforded by the tradable sector or by strengthening the ability of the system to adjust wages or working time in the face of a macroeconomic downturn. Co-ordination can therefore serve as an instrument for wage moderation and earnings flexibility over the business cycle, with potential benefits for employment and resilience.

Social partners affect labour market outcomes and hence inclusive growth and well-being also by influencing and, sometimes, negotiating or even managing other labour market institutions, such as the minimum wage, labour laws (in particular employment protection legislation), unemployment benefits, active labour market policies, payroll taxes, and family and pension policies. Further, any effects of collective bargaining systems also depend on the other policies and institutions in place. For instance, if decentralisation increases wage inequality, the magnitude of the effect on the broader concept of disposable income inequality depends on the extent to which the tax-and-transfer system offsets the rise in wage inequality. While sometimes important, these issues go beyond the scope of this chapter.

3.2. The role of collective bargaining for employment and wage inequality: New evidence from macro-data

The economic literature has long debated the role of collective bargaining for labour market performance, but paid little attention to the system of collective bargaining as a whole. Studies have mostly examined the presence or relevance of collective bargaining rather than its functioning. For example, many analyses of countries with predominantly firm-level bargaining, such as the United Kingdom or the United States, have focused on the role of trade union membership.[5] Union membership is a reasonable proxy of collective bargaining coverage in countries with predominantly firm-level bargaining. But it is not sufficient for measuring the scope of collective bargaining, as many workers who are not affiliated to a trade union are also covered by collective bargaining – via *erga omnes* clauses and, in countries with sectoral or multi-level bargaining, administrative extensions.[6] Bargaining coverage is therefore in general a more appropriate proxy for the relevance of collective bargaining.[7]

However, to capture the role of collective bargaining for labour market performance, it is important to go beyond coverage by looking at its main features and actual functioning. Collective bargaining coverage in Italy is comparable to that in the Netherlands or the Nordic countries. Similarly, Australia and Germany have comparable coverage. As Chapter 2 shows, these systems are nevertheless very different. It is therefore important to also consider the characteristics of the system itself. This echoes Aidt and Tzannatos (2008[6]) in their review of trade unions, collective bargaining and macroeconomic performance in which they concluded that, more than trade union density or coverage, what matters most is the functioning of the "entire package".

In terms of main features, most attention has been directed to the role of centralisation, i.e. the predominant level of bargaining. In the early 1980s, the corporatist view suggested that by guaranteeing that wage-setters recognise broader interests, centralisation, intended as national bargaining, can deliver superior outcomes in terms of macroeconomic and labour market performance (Cameron, 1984[7]).[8]

However, opponents pointed out that wage increases would be restrained or resource allocation would be more effective if market forces were allowed to play a larger role, bringing the example of the United States or the United Kingdom after Thatcher to support this view.

To reconcile these opposing views, Calmfors and Driffill (1988[8]) proposed the influential "hump-shape" hypothesis, which suggested that both centralisation and decentralisation perform well in terms of employment while the worst outcomes may be found in systems with an intermediate degree of centralisation, i.e. sectoral bargaining. In this intermediate case, organised interests are "strong enough to cause major disruptions, but not sufficiently encompassing to bear any significant fraction of the costs for society of their actions in their own interests" (Calmfors and Driffill, 1988[8]). The paper by Calmfors and Driffill had the merit to suggest that the relationship between the degree of centralisation and performance does not need to be monotonic. This hypothesis was behind the critical stance on sectoral bargaining systems in the 1994 *OECD Jobs Strategy* (OECD, 1994[9]) which recommended decentralising collective bargaining given the impossibility to have full centralisation of bargaining systems.[9] However, later empirical studies did not provide much backing for this hypothesis – see OECD (1997[10]), Traxler, Blaschke and Kittel (2001[11]), Aidt and Tzannatos (2002[12]), Bassanini and Duval (2006[13]) and Eurofound (2015[14]).

Another key feature of collective bargaining systems is the degree of wage co-ordination across bargaining units. Soskice (1990[15]) suggested that co-ordinated systems of sectoral bargaining may be as effective as national bargaining systems at adapting to aggregate economic conditions. Subsequent studies found that co-ordination plays a key role in improving the performance of sectoral bargaining – see the review in Aidt and Tzannatos (2002[12]) as well as the evidence in Elmeskov et al. (1998[16]), OECD (2004[17]), Bassanini and Duval (2006[13]), OECD (2012[18]) and Eurofound (2015[14]). The 2006 *Reassessed OECD Jobs Strategy* (OECD, 2006[19]) embraced this "augmented" version of the Calmfors-Driffill hypothesis which entailed that decentralised and centralised or co-ordinated bargaining systems result in better employment performance than sectoral bargaining systems.[10]

More recently, Boeri (2014[20]) revived the debate by suggesting that "two-tier" bargaining systems (i.e. where firm-level bargaining can only top up sectoral bargaining) are worse than fully centralised and fully decentralised systems, as they are not able to respond appropriately either to a microeconomic shock or a macroeconomic one.[11]

All in all, the characterisation and estimation of the economic effects of collective bargaining systems have proven to be a major challenge, leading to a proliferation of indicators for centralisation and co-ordination as well as econometric specifications.

3.2.1. New country-level evidence based on a taxonomy of collective bargaining systems

The role of collective bargaining for labour market performance should be analysed by looking at bargaining systems as a whole, rather than simply at the sum of their components. This section therefore uses a new taxonomy of collective bargaining systems for studying the links with employment and inequality.

The taxonomy of collective bargaining systems is taken from the dashboard in Chapter 2. This proposed a classification scheme based on two main aspects: i) the degree of centralisation as characterised by the predominant level of bargaining as well as the rules and use of extensions, derogations, opt-outs and the favourability principle; and ii) the degree of wage co-ordination between sectoral agreements. Annex 3.A provides further details. The following five categories of collective bargaining systems were identified:[12]

- *Predominantly centralised and weakly co-ordinated collective bargaining systems*: Sectoral agreements play a strong role, extensions are relatively widely used, derogations from higher-level agreements are possible but usually limited or not often used, and wage co-ordination is largely

absent. In 2015, France, Iceland, Italy, Portugal, Slovenia, Spain and Switzerland fell in this group.[13]

- *Predominantly centralised and co-ordinated collective bargaining systems*: As in the previous category, sectoral agreements play a strong role and the room for lower-level agreements to derogate from higher-level ones is quite limited. However, wage co-ordination is strong across sectors. In 2015, Belgium and Finland were part of this group.
- *Organised decentralised and co-ordinated collective bargaining systems*: Sectoral agreements play an important role, but they also leave significant room for lower-level agreements to set the standards – either by limiting the role of extensions (rare and never automatic or quasi-automatic), leaving the design of the hierarchy of agreements to bargaining parties or allowing opt-outs. Co-ordination across sectors and bargaining units tends to be strong. In 2015, Austria, Denmark, Germany, the Netherlands, Norway and Sweden were in this group.
- *Largely decentralised collective bargaining systems*: Firm-level bargaining is the dominant bargaining form, but sectoral bargaining (or a functional equivalent) or wage co-ordination also play a role. Extensions are very rare. Australia with its "Modern Awards" (see Box 3.5 for details) and Japan with its unique form of co-ordination (*Shunto*) were in this group in 2015, as well as Greece, Luxembourg and the Slovak Republic. Since the enactment of the Industrial Relations (Amendment) Act of October 2015, which re-introduced "Sectoral Employment Orders", Ireland is also part of this group.
- *Fully decentralised collective bargaining systems*: Bargaining is essentially confined to the firm or establishment level with no co-ordination and no (or very limited) influence by the government. In 2015, Canada, Chile, the Czech Republic, Estonia, Hungary, Korea, Latvia, Lithuania, Mexico, New Zealand, Poland, Turkey, the United Kingdom and the United States were part of this group.

The country classification in 2015 was extended backwards to 1980 using information in the Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts (ICTWSS) database.[14] The time variation in the resulting taxonomy of collective bargaining systems for OECD countries over the period 1980-2015 is considerable – see Annex 3.A. It reflects, in large part, the strong trend towards decentralised collective bargaining, but it also captures many country-specific changes in collective bargaining practices. These differences in the time variation are exploited in the analysis to estimate the relationship between systems of collective bargaining and indicators of labour market performance.

The analysis compares labour market outcomes under different collective bargaining systems relative to the fully decentralised system, while controlling for the level of bargaining coverage as well as the possible role of the business cycle, the characteristics of the workforce and persistent country-specific features (using country fixed effects).[15] The results also account for other policy reforms that occurred at the same time, in the areas of labour taxation, product market regulation, job dismissal regulation, minimum wages and unemployment benefits. The relationships estimated in this section may nevertheless be influenced by the state of the labour market over and above the business cycle or other potentially important factors not controlled for; hence, care should be taken not to give the results a strict causal interpretation.

Co-ordinated bargaining systems are associated with higher employment and lower unemployment relative to fully decentralised systems (Panel A of Figure 3.2). This is particularly the case for predominantly centralised systems, while for organised decentralised systems the result on unemployment is somewhat smaller and less robust. Centralised but weakly co-ordinated systems and largely decentralised systems hold an intermediate position, with better employment outcomes than in fully decentralised ones but similar unemployment outcomes. The difference between the employment and unemployment results suggests that such systems are linked with higher employment and labour force participation. On average across all regimes, higher bargaining coverage is associated with lower employment rates (Annex 3.B). Given that in centralised and co-ordinated systems more workers tend to be covered, the extent to which these systems are linked with better employment outcomes could thus be somewhat lower than is displayed in the figure.

Empirically, the relative underperformance of fully decentralised systems is identified from variation in three countries (Ireland, New Zealand and the United Kingdom), which all undertook very significant collective bargaining reforms. The finding does not appear to be specific to these three countries, as it remains unchanged when country fixed effects are omitted from the regression. The results overall are qualitatively robust to two further sensitivity checks – see Annex 3.B for details. First, they are similar when more traditional collective bargaining indicators for centralisation and co-ordination (from the ICTWSS database) are used instead of the new taxonomy indicators.[16] Second, the results with respect to collective bargaining regimes are effectively unchanged when collective bargaining coverage is not controlled for.

As mentioned above, some models have argued that collective bargaining delivers good labour market outcomes for "insiders" (notably prime-age male full-time workers with a permanent contract) at the expense of jobs for "outsiders", such as youth, women and low skilled – see Saint-Paul (1996[21]) and Bertola (1999[22]). According to these models, by pushing the interests of "insiders", unions may accept or even contribute to the proliferation of non-standard forms of employment as a buffer for its members, thereby reducing the inclusiveness of the labour market. In particular, unions may make temporary contracts indirectly more attractive for firms, by increasing the labour cost of "insiders", for instance through bargaining over severance pay or assisting workers faced with the risk of dismissal.

The evidence, however, suggests that, in most cases, co-ordinated systems – either centralised or organised decentralised – are associated with better labour market outcomes for vulnerable groups (Panels B and C of Figure 3.2). The unemployment rates of youth, women and low-skilled workers appear to be consistently lower (or at least not higher) in co-ordinated systems than in decentralised ones. Co-ordinated and organised decentralised systems are also associated with a lower share of involuntary part-time workers. While the share of temporary employment is higher in countries with higher bargaining coverage – see Annex 3.B – which is in line with findings in Salvatori (2009[23]), this finding is not corroborated in studies looking at agency work in the United States – see e.g. Gramm and Schnell (2001[24]) and Autor (2003[25]).

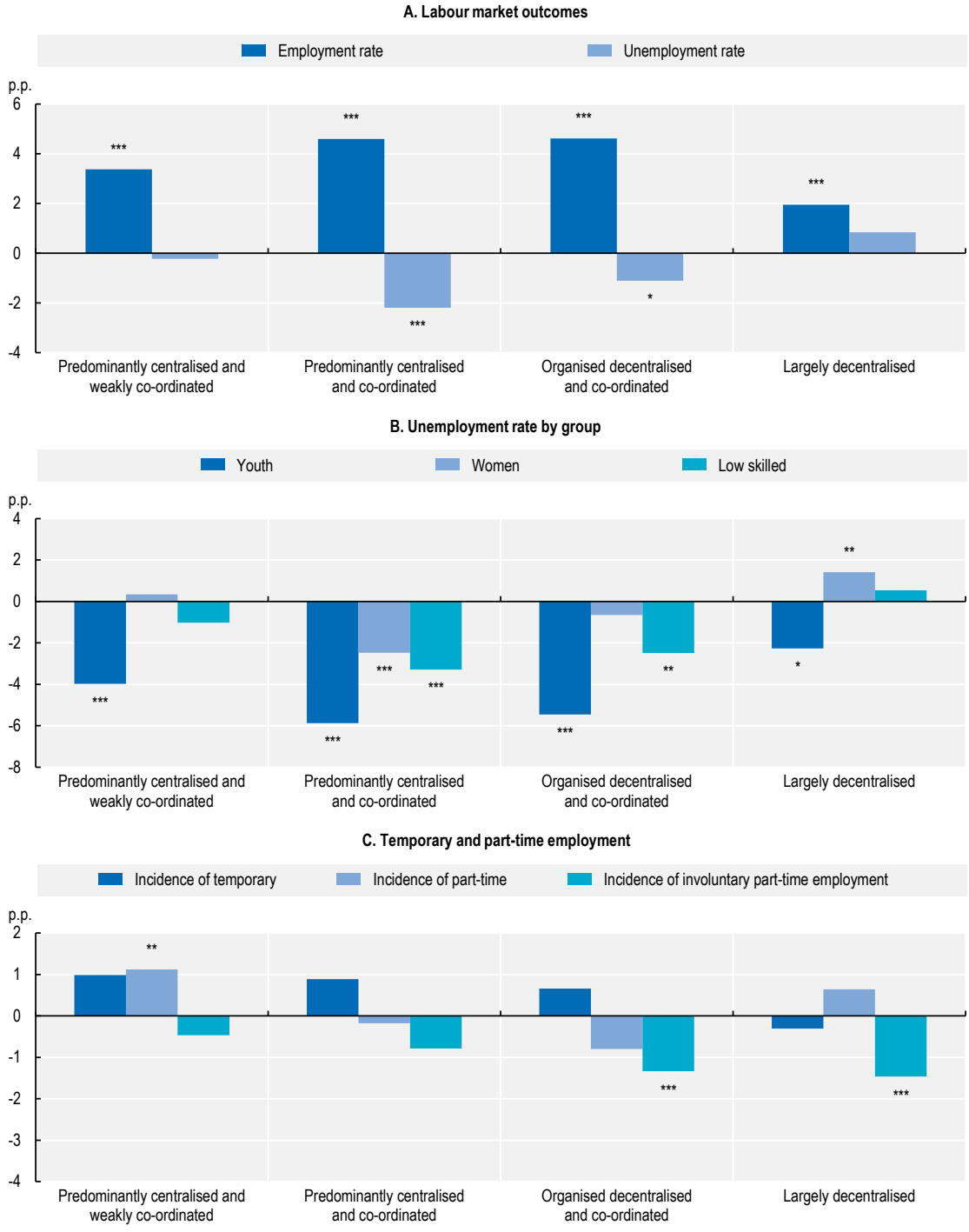
Collective bargaining systems that are not fully decentralised are also correlated with lower wage inequality for full-time employees (Figure 3.3), as measured by the D9/D1-ratio, i.e. the ratio of the wage at the 9th decile of the wage distribution to the wage at the 1st decile. This association is present both in the lower and upper half of the wage distribution.[17] Similar results are obtained when replacing the taxonomy indicators with indicators for centralisation and co-ordination – see Annex 3.B.

Strengthening the bargaining power of low-wage workers is one of the core missions of collective bargaining, so it is not surprising that empirically collective bargaining is associated with lower levels of inequality. Detailed pay scales, where they are defined, can compress wages in the middle and top of the distribution to compensate for higher wages at the bottom; Leonardi, Pellizzari and Tabasso (2015[26]) provide evidence of wage compression within Italian firms. These mechanisms are particularly relevant when bargaining covers a substantial share of the working population. Section 3.3 provides further evidence on the positive role of collective bargaining for wage equality based on matched employer-employee and sector-level data. The inequality results in this chapter complement previous findings that point in the same direction, from earlier studies by Blanchflower and Freeman (1993[27]), Blau and Kahn (1999[28]), Card, Lemieux and Riddell (2004[29]) and DiNardo and Lee (2004[30]) to more recent ones including OECD (2011[31]), ILO (2015[32]) and Jaumotte and Buitron (2015[33]).

In conclusion, using country-level data on labour market outcomes for 35 OECD countries between 1980 and 2016 and a novel characterisation of collective bargaining systems, co-ordinated systems are shown to be associated with higher employment, lower unemployment, a better integration of vulnerable groups and less wage inequality than fully decentralised systems. Weakly co-ordinated, centralised systems and largely decentralised systems hold an intermediate position, performing similarly in terms of unemployment to fully decentralised systems, but sharing many of the positive effects on other outcomes with co-ordinated systems.

Figure 3.2. Collective bargaining systems and employment outcomes

Difference in percentage points with respect to fully decentralised systems

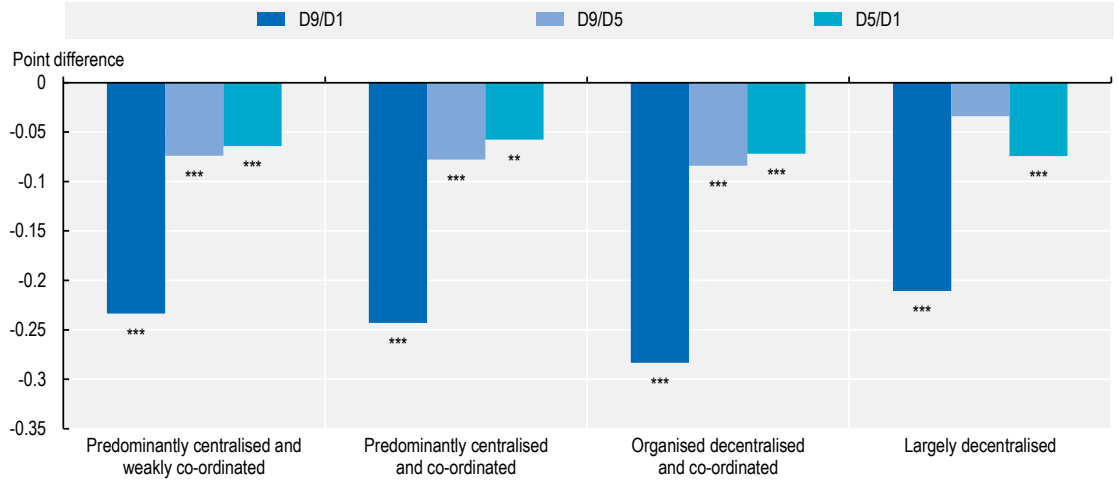


Note: ***, **, *: statistically significant at the 1, 5 and 10% levels, respectively. Results are based on OLS regressions including country and year dummies, collective bargaining coverage, log of average years of education, female employment share and institutional variables: (tax wedge, product market regulation, employment protection legislation (both temporary and permanent), ratio of minimum wage to median wage and gross unemployment benefit replacement rate).
Source: OECD estimates. Details on sources and definitions can be found in Annex 3.B.

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Figure 3.3. Collective bargaining and wage dispersion

Difference in percentage points with respect to fully decentralised systems



Note: ***, **, *: statistically significant at the 1, 5 and 10% levels, respectively. Results are based on OLS regressions including country and year dummies, collective bargaining coverage, log of average years of education, female employment share and institutional variables: tax wedge, product market regulation, employment protection legislation (both temporary and permanent), ratio of minimum wage to median wage and gross unemployment benefit replacement rate. Earnings inequality measures are based on gross earnings of full-time wage and salary workers. D1, D5 and D9 stand for the first, fifth and ninth decile of the wage distribution.
Source: OECD estimates. Details on sources and definitions can be found in Annex 3.B.

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3.3. The role of collective bargaining for inclusiveness and flexibility: New evidence from micro-data

By centralising or co-ordinating negotiations over wages and working conditions, collective bargaining has a tendency to compress pay differences among workers. As a result, it weakens the link between individual performance, wages and working conditions. In the context of firm-level bargaining, overall firm performance necessarily becomes the main reference for negotiations on pay increases rather than individual performance. Similarly, in the context of sectoral bargaining, overall industry performance becomes the main contextual factor for pay increases. In the same vein, centralisation and co-ordination place a greater emphasis on macroeconomic performance and therefore competitiveness and resilience.

Collective bargaining may manifest itself in a lower dispersion of wages, by defining common criteria for wages of workers, firms or sectors. But by the same mechanism, it may also lead to stronger rigidities in wages over time, as negotiating partners are less flexible to tailor wages to the individual worker, firm or sector. The effects of such rigidities are likely to depend on the context in which they occur. In some cases, they may be benign, for example when they reduce the scope for discriminatory practices or serve a specific economic purpose as in the case of co-ordination, while in others they may raise concerns, for instance when they weaken incentives for skill acquisition.

This section uses worker- and sector-level data to shed further light on the relationship between collective bargaining institutions, wage equality, productivity growth and the way wages are set in line with productivity in firms and sectors. In doing so, the analysis provides useful insights into the mechanisms that may drive some of the macroeconomic relationships documented in Section 3.2.

3.3.1. Collective bargaining and wage dispersion

In many countries, the wages of some workers are principally determined by a collective pay agreement (collective bargaining), while those of others are not (individual bargaining). This may, or may not, introduce forms of injustice or unfairness between the two groups of workers, depending on what collective bargaining actually does. Empirically, the fact that some workers are covered by collective agreements while others are not allows comparing the level and dispersion of wages between workers in different bargaining schemes, without having to rely on country-to-country comparisons that might be influenced by aspects other than collective bargaining.

Worker-level data on collective bargaining coverage are available for 21 OECD countries. Besides distinguishing workers covered by collective bargaining from those who are not, the micro-data separately identify workers whose wage is primarily determined by a firm- as opposed to a sectoral agreement.[18] This creates the possibility of distinguishing three bargaining levels: i) individual or no collective bargaining; ii) firm-level bargaining; and iii) sectoral bargaining. The three co-exist in the dataset for seven of the 21 countries; in the others two co-exist. Labour earnings are defined per hour and include bonus payments. As in Section 3.2, dispersion is measured as the ratio of wages at the 9th decile to the 1st decile.

When comparing wage dispersion between workers who are covered by collective bargaining and those who are not, it is important to account for possible sample selection: For instance, if collective agreements cover mainly men, or certain industries, wage dispersion may be lower with collective bargaining because wages tend to be more similar among men only, or among certain industries, than in the entire working population. Different empirical techniques can be applied to adjust for these compositional differences between bargaining groups. The one used in this section goes back to Juhn, Murphy and Pierce (1993[34]) and has been widely used since.[19] For each country and bargaining level, separately a standard hourly wage regression is run on a large number of explanatory variables: age, gender, education, firm size, contract type, years employed in the firm, industry and occupation. Differences in composition are then corrected by replacing the coefficients and residuals in each bargaining level with those for the group of workers who are not covered. Box 3.1 describes the empirical approach in detail.

On average, earnings dispersion is lower with collective bargaining, when accounting for compositional differences (Figure 3.4). In the first group of countries where all three bargaining levels co-exist, wage dispersion is highest among workers not covered by collective bargaining, followed by firm-level and then sectoral bargaining. By contrast, for the second group of countries where there is no sectoral bargaining, wage dispersion among workers covered and those not, at least on average, is the same. A cross-country comparison of the averages for the first two groups suggests that firm-level bargaining is only effective in lowering wage dispersion when it comes on top of sectoral bargaining. One possible explanation for this may be that companies characterised by firm-level bargaining are in most cases also covered by sectoral bargaining. Firm-level bargaining may then not fully undo the inequality reduction due to sectoral bargaining. In five countries (Hungary, Korea, Mexico, Norway and Portugal), the results go in the opposite direction. Nevertheless, overall, they appear consistent with those in the previous section which suggested that the economy-wide distribution of wages is less equal in systems without scope for sectoral or higher-level bargaining (see Figure 3.3).

Box 3.1. Empirical approach to adjust wages and wage dispersion for differences in composition

Differences in wages and wage dispersion between workers covered by collective bargaining and those not could, in part, be due to differences in composition. A standard way to adjust for these compositional differences is provided by Juhn, Murphy and Pierce (1993[34]). Applying this method in the present context, for each country and bargaining level b (no collective bargaining, firm-level bargaining, sectoral bargaining) separately, the following regression is run:

$$\log(w_{ib}) = x_{ib}\beta_b + \varepsilon_{ib}.$$

The wage of worker i is measured per hour, and weights in the survey are used to better align the sample with the actual working population. Control variables, x_{ib}, include dummies for age, gender, education, firm size, contract type (permanent or temporary), job tenure, industry and occupation. A few control variables are not available for some countries. Comparing estimated coefficients, $\hat{\beta}$, for the same variables allows examining, for instance, differences in the gender gap or education premium between workers covered by collective bargaining and those who are not.

The empirical approach to adjust a wage statistic, $f(w_b)$, such as the average wage or D9/D1-ratio, for compositional differences is as follows. Workers whose wages are not governed by collective bargaining, b_1, are taken as the benchmark. In Belgium, France and Spain where data for workers not covered are not available, firm-level bargaining is taken as the benchmark. The counterfactual wage of worker i covered by collective bargaining, b_2, is then calculated as

$$\log\left(w^{x}_{ib_2}\right) = x_{ib_2}\hat{\beta}_{b_1} + \hat{\varepsilon}_{ib_1}\left(\hat{p}_{ib_2}|x_{b_2}\right),$$

with the last expression denoting the residual from the regression for workers not covered that is at the same percentile $\hat{p}_{ib_2}$ as worker i's residual. The assumption is that, had a covered worker become uncovered while maintaining the same characteristics, the new residual of the worker would have belonged to the same percentile of the distribution of the residuals in the uncovered sector as the percentile the old residual belonged to in the distribution of the covered sector.

The difference in the desired wage statistic using the raw data is

$$f\left(w_{b_2}\right) - f\left(w_{b_1}\right),$$

which after adjusting for differences in composition becomes

$$f\left(w_{b_2}\right) - f\left(w^{x}_{b_2}\right).$$

Figure 3.4. Composition-adjusted wage dispersion by level of collective bargaining

Ratio of the 9th to the 1st earnings decile



Note: Results are based on Juhn-Murphy-Pierce decompositions using workers without a collective agreement as the reference group and controlling for gender, age groups, educational attainment, industry, occupation, firm size, type of contract and job tenure. Countries are ordered in ascending order of the D9/D1-ratio for employees not covered by a collective agreement, where D1 and D9 stand for the 1st and 9th decile of the wage distribution. Data are from 2012-16, depending on the country (2006 for Germany). The first group of countries allows comparing wage dispersion among workers not covered by collective bargaining with that among workers covered by firm-level agreements and that among workers covered by sectoral agreements. The second group compares wage dispersion among uncovered workers with that among workers with a firm-level agreement. The third group compares wage dispersion among uncovered workers with that among workers with a sectoral agreement. The final group allows comparing wage dispersion among workers with a firm-level agreement with that among workers with a sectoral agreement. "Sectoral bargaining" for Australia refers to the use of Modern Awards (see Box 3.5). A proper sector-level bargaining does not exist in Australia.

Source: OECD calculations based on the European Structure of Earnings Survey for European countries, the Household, Income and Labour Dynamics survey for Australia, the Labour Force Survey for Canada, the Labour and Income Panel Study for Korea, the National Survey of Occupation and Employment for Mexico and the Current Population Survey Merged Outgoing Rotation Groups for the United States.

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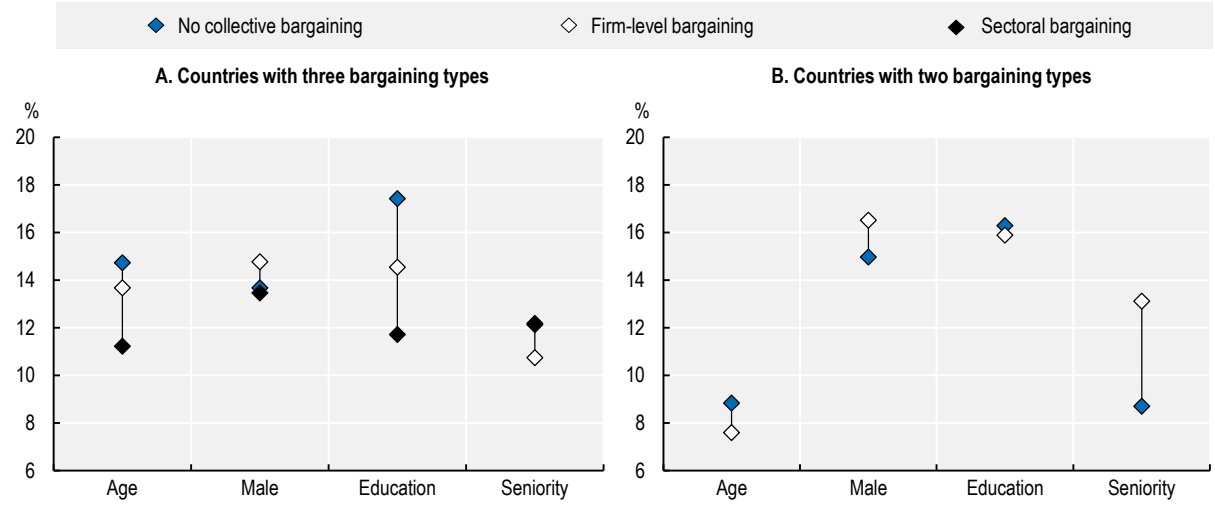
3.3.2. What accounts for the lower wage dispersion with collective bargaining?

Empirically, two categories of factors may account for the lower wage dispersion with collective bargaining: differences in the returns to characteristics (technically, the coefficients) and unexplained differences (the residual). This issue is investigated here by focusing on the two largest country groups for which data are available: the first with seven countries (which have three collective bargaining types) and the second with nine countries (which have two types: firm-level bargaining and no collective agreement).

Four characteristics are studied to analyse the extent to which collective bargaining may compress their returns (Figure 3.5): a higher age, being male, a better education and seniority at work (measured by the number of years in the firm). All four typically exhibit increasing returns in micro-level analyses, meaning that older, male, more educated and more experienced workers tend to earn more.

Figure 3.5. Wage returns by level of collective bargaining

Unweighted averages across countries, 2014



Note: Results are based on OLS regressions controlling for gender, age groups, educational attainment, industry, occupation, firm size, type of contract and job tenure. Data are from 2012-16, depending on the country (2006 for Germany). The age premium is calculated relative to 20-29-year-olds, the education premium relative to workers with no high school education and the seniority premium relative to workers who have worked for their current employer for less than one year. The categories for the comparison groups (different age groups, education categories and brackets for number of years in the firm) are weighted by the proportion of workers in these categories. The countries with three bargaining types are Australia, the Czech Republic, Germany, Luxembourg, Portugal, the Slovak Republic and the United Kingdom. The countries with two bargaining types are Canada, Estonia, Hungary, Korea, Latvia, Lithuania, Mexico, Poland and the United States.
Source: OECD calculations based on the European Structure of Earnings Survey for European countries, the Household, Income and Labour Dynamics survey for Australia, the Labour Force Survey for Canada, the Labour and Income Panel Study for Korea, the National Survey of Occupation and Employment for Mexico and the Current Population Survey Merged Outgoing Rotation Groups for the United States.

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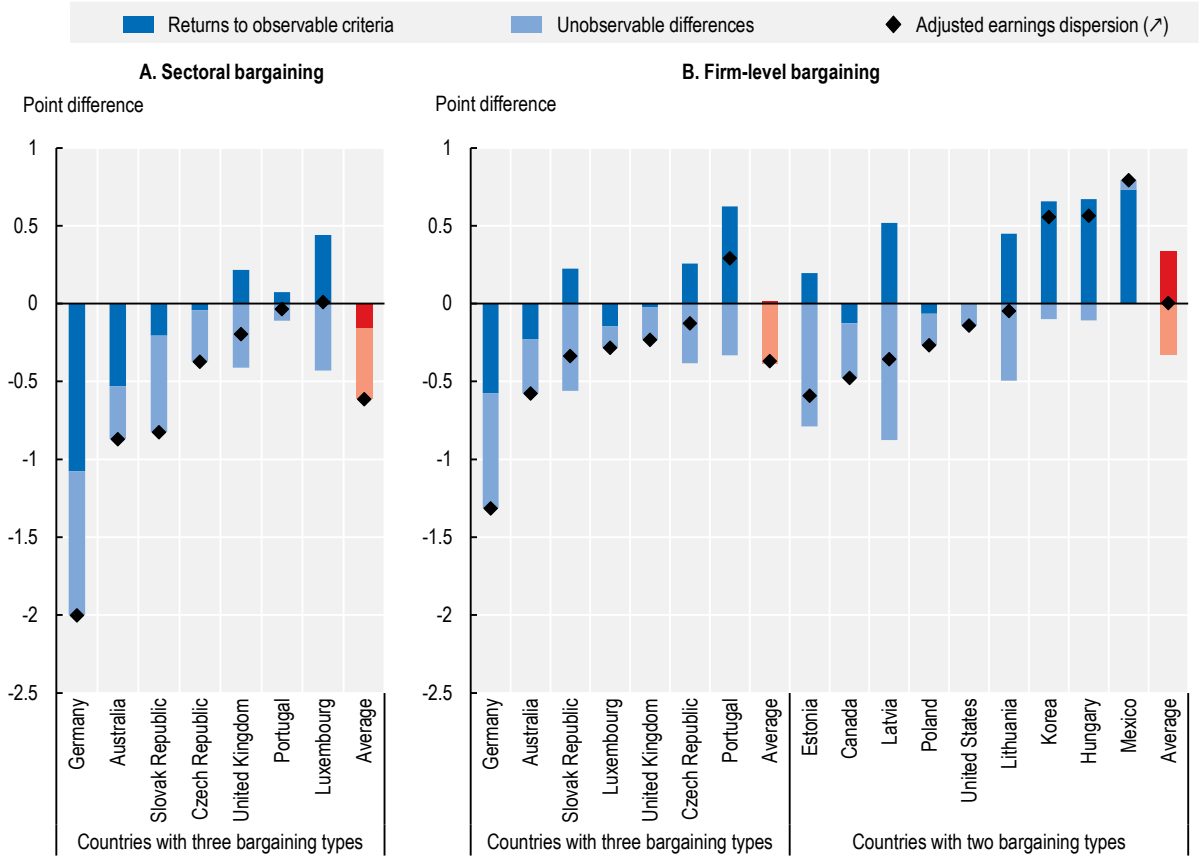
Compared with uncovered workers, the age premium is lower for people who are covered by firm-level bargaining and even more so for those covered by sectoral bargaining. Collective bargaining thus lowers wage inequality, in part by flattening the distribution of wages among people of different ages. By contrast, no evidence is detected that collective bargaining compresses the gender pay gap on average. If anything, men's wage premium over women is slightly larger among workers covered by collective bargaining than those who are not.

The benefit of better education, in terms of higher pay, is lower with firm- and even more so sectoral bargaining. A lower payoff from education, while reducing inequality, may also negatively affect productivity growth if this leads to lower investment in education. Finally, monetary rewards for seniority are also found to be an explanatory factor for why in countries with firm- and sectoral bargaining wage dispersion is lower with collective bargaining than without, although the picture is the opposite in the group of countries with only firm-level bargaining.

Even if reduced returns to age, education and seniority go some way towards explaining the lower wage dispersion with collective bargaining, overall it is mainly unobserved factors that reduce wage dispersion (Figure 3.6).

Figure 3.6. Accounting for the differences in wage dispersion with and without collective bargaining

Change in the ratio of the 9th to the 1st earnings decile relative to employees not covered by collective bargaining (adjusted for composition), 2014



Note: Results are based on Juhn-Murphy-Pierce decompositions using workers without a collective agreement as the reference group and controlling for gender, age groups, educational attainment, industry, occupation, firm size, type of contract and job tenure. Data are from 2012-16, depending on the country (2006 for Germany). For countries with three bargaining types, data are available for firm- and sectoral bargaining and no collective bargaining. For countries with two bargaining types, data are available for firm-level bargaining and no collective bargaining. "Sectoral bargaining" for Australia refers to the use of Modern Awards (see Box 3.5). A proper sectoral bargaining does not exist in Australia.
Source: OECD calculations based on the European Structure of Earnings Survey for European countries, the Household, Income and Labour Dynamics survey for Australia, the Labour Force Survey for Canada, the Labour and Income Panel Study for Korea, the National Survey of Occupation and Employment for Mexico and the Current Population Survey Merged Outgoing Rotation Groups for the United States.

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3.3.3. Collective bargaining wage premium

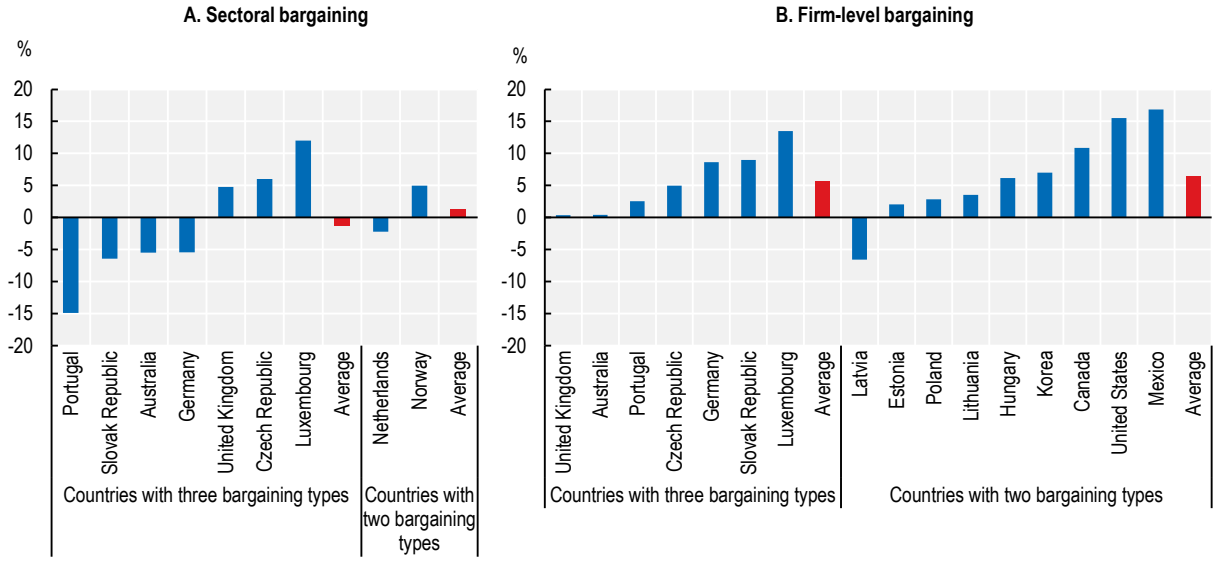
This section has so far focused on wage dispersion within each bargaining type, i.e. wage dispersion among workers not covered by collective agreements and wage dispersion among workers covered by collective bargaining. Results can be interpreted as illustrating what would happen to wage inequality if in a country collective bargaining moved from inexistent to full coverage or from full to no coverage. This naturally seems extreme. When considering less extreme scenarios, account should also be taken of pay

differences which may exist between workers covered by collective agreements and those not. Such pay differences are sometimes referred to as the collective bargaining wage premium.

Workers are paid more with firm-level bargaining, while sectoral bargaining is not associated with relatively higher pay on average (Figure 3.7). This is not surprising as firm-level negotiations can often only raise wages relative to sectoral agreements. The differences in wages may also signal higher productivity in companies with firm-level bargaining. The results are in line with a large body of the literature which finds that sectoral bargaining is not linked with higher wages on average – see Dell'Aringa and Lucifora (1994[35]), Hartog, Leuven and Teulings (2002[36]), Rycx (2003[37]) and Cardoso and Portugal (2005[38]). The variation for sectoral bargaining across countries is large, with a positive premium in some countries and a negative one in others. By contrast, wages of workers covered by firm-level agreements are higher than those of uncovered workers in all countries except Latvia. In countries with low collective bargaining coverage, wage inequality can thus rise as firm-level bargaining expands to include more workers, even if wage dispersion is smaller among workers covered by firm-level bargaining than among those who are not.

Figure 3.7. Wage premium by level of collective bargaining

Composition-adjusted difference in average wages relative to no collective bargaining, 2014



Note: Results are based on Juhn-Murphy-Pierce decompositions using workers without a collective agreement as the reference group and controlling for gender, age groups, educational attainment, industry, occupation, firm size, type of contract and job tenure. Data are from 2012-16, depending on the country (2006 for Germany). "Sectoral bargaining" for Australia refers to the use of Modern Awards (see Box 3.5). A proper sectoral bargaining does not exist in Australia.
Source: OECD calculations based on the European Structure of Earnings Survey for European countries, the Household, Income and Labour Dynamics survey for Australia, the Labour Force Survey for Canada, the Labour and Income Panel Study for Korea, the National Survey of Occupation and Employment for Mexico and the Current Population Survey Merged Outgoing Rotation Groups for the United States.

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3.3.4. Collective bargaining and wage-productivity misalignment

The analysis above has shown that collective bargaining tends to be associated with lower wage dispersion. The stronger wage compression with collective bargaining may reflect a more pronounced misalignment of wages with a firm's or sector's productivity, because centralisation or co-ordination of negotiations makes pay in part determined by factors other than the firm or sector. In this sense, lower wage flexibility at the sub-national level and lower wage dispersion could be seen as two sides of the same coin.[20]

The extent to which wages in a particular firm or sector correspond to the productivity in the firm or sector can be estimated with available data. By comparing countries with one another, the analysis that follows provides suggestive evidence that wages tend to be less aligned with labour productivity in countries where collective bargaining institutions have a more important role.[21]

The analysis relies on insights using sector-level data, examining the correlation between wages and productivity across sectors. Sector-level data have the advantage that they cover the same number of units (i.e. sectors) for many countries over a long period of time. They are available for 28 OECD countries from 1980 to 2014, covering 24 sectors. Box 3.2 describes the estimation approach.

Box 3.2. Empirical approach to estimate the role of collective bargaining for wage-productivity alignment

The alignment of wages with productivity is estimated through the strength of the correlation of the hourly wage rate with hourly labour productivity. The baseline regression uses sector-level data and is as follows:

$$\log(w_{sct}) = \beta_c \log(\mathrm{LP}_{sct}) + \alpha_{ct} + \varepsilon_{sct}.$$

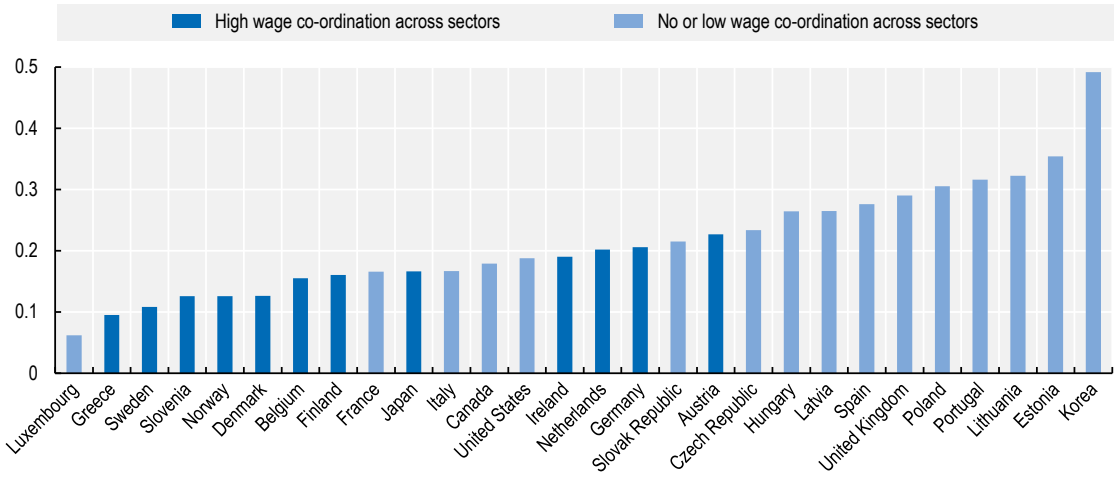
If wages, w_{sct}, and labour productivity, LP_{sct}, are positively correlated across sectors in country c, $\beta_c > 0$. The inclusion of the country-year fixed effects, α_{ct}, ensures comparing sector s_1 in a given country and year to other sectors in the same country and year. When investigating the relative roles of wage co-ordination, centralisation and bargaining coverage, productivity is interacted with indicators for co-ordination, centralisation and bargaining coverage.

The approach comes down to studying the role of collective bargaining for the distribution across sectors of the labour share, i.e. the share of value added going to workers. Schwellnus, Pak and Pionnier (2018[39]) use sector-level data to study the role of, among others, collective bargaining for the size of the labour share.

Countries show marked differences in the degree to which wages and productivity are aligned for different sectors (Figure 3.8). The correlation is relatively high in many Eastern European countries (the Czech Republic, Estonia, Hungary, Latvia, Lithuania and Poland). It is also high in Korea, Portugal, Spain and the United Kingdom. By contrast, misalignments of wages with productivity appear to be strong in some Nordic countries (Denmark, Finland, Norway and Sweden), as well as Belgium, Greece, Luxembourg and Slovenia.

Several features of collective bargaining could affect the flexibility of firms in a sector to set wages in line with sector-level productivity. Possibly the most natural candidate is wage co-ordination across sectors, which actively seeks to limit differences in pay across sectors by establishing some cross-sectoral wage norm for the purposes of collective bargaining. This is borne out in the data. Wages and productivity at sectoral level are more aligned in countries without co-ordination in wage-setting. The difference is stark: On average across countries, the elasticity of wages with respect to productivity is 0.26 without and 0.16 with cross-sector wage co-ordination. This means that if productivity is 10% higher in some sector than another, wages tend to be 2.6% higher in this sector in co-ordination countries and 1.6% higher in non-co-ordination countries.[22]

Figure 3.8. Elasticity of wages with respect to productivity across sectors: Country estimates



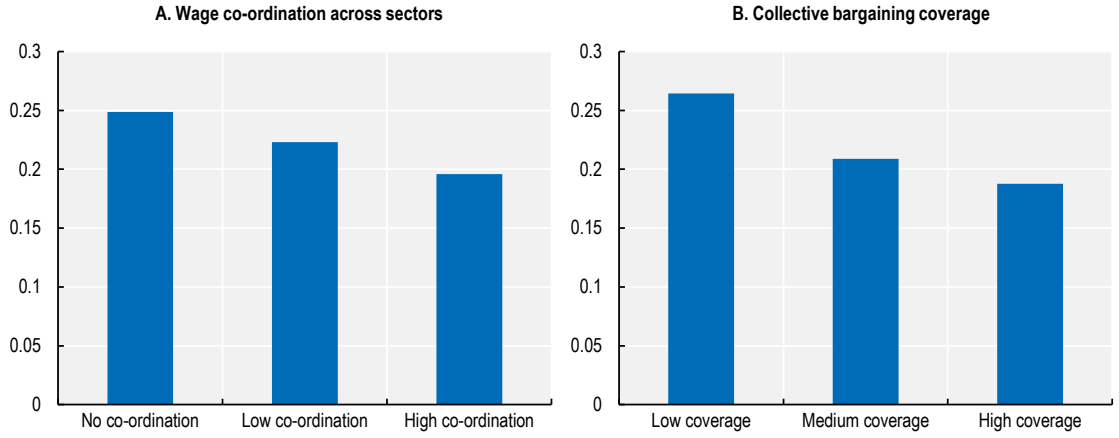
Note: Results are based on Ordinary Least Squares (OLS) regressions of the log hourly wage on log hourly labour productivity across sectors. The regressions include country-year dummies. Co-ordination is classified as high for a country if in the majority of the years in the sample it is classified as high.
Source: OECD estimates based on OECD Annual National Accounts database completed with OECD Structural Analysis (STAN) database, EU-level analysis of capital, labour, energy, materials and service inputs data (EU-KLEMS) and Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts (ICTWSS) database.

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Wage co-ordination is correlated with other features of collective bargaining such as coverage rates and the degree of centralisation. Centralisation may matter for wage-productivity alignments because in industries with stronger trade unions workers may appropriate a greater share of the production surplus. Coverage may matter since without coverage wage co-ordination and centralisation have no role. Moreover, in countries with no explicit wage co-ordination but high coverage and centralised bargaining, negotiations in one sector may nevertheless serve as an implicit benchmark for others. Thus, some cross-sectoral co-ordination can happen even if co-ordination is not institutionalised.

Sectoral wages are set less in line with sectoral productivity in systems with cross-sector wage co-ordination, even when differences in coverage rates are accounted, or controlled, for (Figure 3.9). As coverage rates tend to be higher in countries with wage co-ordination, taking account of this reduces the difference in the wage-productivity-correlation between countries with and without co-ordination. Centralisation, too, is found to be related with a weaker alignment between wages and productivity across sectors – see Annex 3.B for the full regression results.

Figure 3.9. Elasticity of wages with respect to productivity across sectors: The role of collective bargaining



Note: Results are based on Ordinary Least Squares (OLS) regressions of the log hourly wage on log hourly labour productivity across sectors. The regressions include country-year dummies and interactions of log productivity with wage co-ordination dummies and collective bargaining coverage. Low, medium and high collective bargaining coverage are defined by the averages for the bottom third, middle third and top third in the distribution of coverage rates in the sample.
Source: OECD estimates based on OECD Annual National Accounts database completed with OECD Structural Analysis (STAN) database, EU-level analysis of capital, labour, energy, materials and service inputs data (EU-KLEMS) and Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts (ICTWSS) database.

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Co-ordination, collective bargaining coverage and centralisation jointly predict lower wage-productivity alignment. The empirical evidence, which is based on cross-country comparisons, is not enough for proving that such features of collective bargaining are the driving, or causal, factors behind the differences across countries in wage-productivity alignments. It is nonetheless suggestive that collective bargaining has an important role for how wages in a sector correspond to sector performance.

The analysis in this subsection has focused on sector-level data. In related work, and in line with the results in this section, Berlingieri, Blanchenay and Criscuolo (2017[40]) show, based on harmonised micro-aggregated firm-level data covering many countries, that trade union density and co-ordination in wage-setting tend to be associated with a lower dispersion of average wages across firms and a weaker link between productivity and average wage dispersion across firms in the same sector.

This section has used data on actual wages in different sectors in the economy. Typically, however, collective bargaining sets negotiated wages which may depart from actual wages. In the euro area, negotiated wages have grown at a lower rate since 2000 than actual wages and labour productivity (Box 3.3). Negotiated wages have tended to follow productivity only with a considerable lag, which appears to have induced a misalignment of wage and productivity growth rates at the macroeconomic level in the short run.

Box 3.3. Negotiated wages in euro area countries

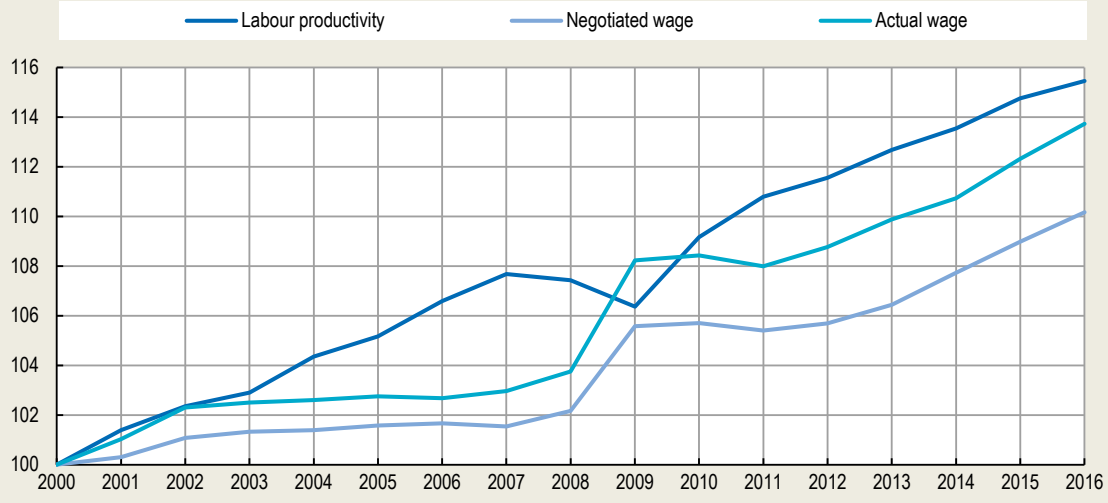
Analyses on wage developments and collective bargaining almost exclusively focus on actual wages. However, collective agreements usually define contractual wages which in most countries apply only to a subset of workers. Actual wages also reflect the trends among non-covered workers as well as supplements at the company, plant or individual level (such as bonus or overtime pay). The difference between the actual wage outcome and the negotiated wage is generally referred to as the "wage drift", i.e. the movement of wages above the negotiated floor.

Data on negotiated wages are not easily available and when available not easily comparable. The European Central Bank (ECB) provides "experimental" statistics on the evolution of negotiated wages for the euro area as a whole (European Central Bank, 2002[41]),[23] while the CAWIE (Collectively Agreed Wages In Europe) database developed by the European network of Trade Union related Research Institutes (TURI) provides the underlying national statistics.[24] Similar data are also collected and published by Eurofound (2017[42]).

Figure 3.10 shows the trends in negotiated wages, actual wages and labour productivity in real terms for the euro area as a whole from 2000 to 2016 using the ECB data. The aggregate data show that, on average, negotiated wage growth has been relatively limited, or at least well below productivity growth both before and after the crisis. Actual wage growth exceeded negotiated wage growth but remained below productivity growth, reducing the labour share. Only during 2008-09 negotiated (and actual) wage growth increased above productivity growth due to the unexpected deflationary shock of the crisis and the staggering of collective agreements. Staggering refers to the inability to renegotiate agreements signed under more favourable economic conditions, which can amplify the aggregate shock, as shown by Diez-Catalan and Villanueva (2015[43]) for Spain.

Figure 3.10. Negotiated wages in the euro area

Base 100 in 2000



Note: Negotiated and actual wages are deflated using the private final consumption price index.
Source: OECD calculations based on ECB data on collectively agreed wages and Eurostat National Accounts data.

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Country-specific data (Annex 3.C) show that in all countries (except in Italy, as a result of dismal productivity growth, not "excessive" wage increases) negotiated wages have grown in line with, or often less than, labour productivity growth, apart from 2008-09. Interestingly, negotiated wages in the Netherlands have barely moved since 2000 – in fact, negotiated wages in the Netherlands are practically unchanged since the 1970s in real terms (de Beer and Keune, 2017[44]) – but thanks to a sizeable wage drift actual wages have grown in line with productivity. By contrast, in Germany actual wages have grown considerably less than productivity and less than negotiated wages, showing a negative "wage drift". This unique trend of negative wage drift (at least among the European countries for which data are available) means that actual wages are not bound by negotiated wages, which is probably the result of decreasing bargaining coverage in Germany and the use of opening clauses which allow companies to deviate from sectoral agreements (Schulten, 2013[45]).

Overall, in countries where wage co-ordination has an important role or wages are more centralised at sectoral level, the correlation of wages with productivity at the sub-national level is weaker. This suggests that wage co-ordination "works", in the sense that it co-ordinates wages and, by partially delinking wages from productivity, may end up in a less dispersed wage distribution. Centralisation and co-ordination may also affect how wages can respond to individual firm performance. In the longer term, such delinking of wages from productivity could have potentially important implications for productivity growth. It could reduce incentives for workers to innovate, work hard and move to a better-paid job. However, stronger misalignments of wages from productivity do not need to have such negative effects; for example, they may even increase innovation incentives, if firms would reap the full benefits of productivity gains. Box 3.4 summarises the existing literature on collective bargaining and productivity. It also provides exploratory evidence that certain forms of sectoral bargaining may come at the expense of lower productivity growth within sectors.

Box 3.4. Collective bargaining and productivity growth

How does collective bargaining influence productivity? Theory suggests that effects could go either way. On the one hand, collective bargaining can increase aggregate productivity by setting higher wage floors (and making it more difficult to cut costs through lower wages) which may force unproductive firms to exit the market (Braun, 2011[46]). More rigid wages may also increase the incentives of the firms' owners to innovate, as they would reap the full benefits of productivity gains – see Acemoglu and Pischke (1999[47]) and Haucap and Wey (2004[48]). Other ways through which collective bargaining could promote productivity growth are higher "efficiency" wages, better non-wage working conditions and the possibility for workers to voice concerns.

On the other hand, a more compressed wage structure may reduce the incentives to work hard and move to a more productive firm, harming firm productivity and the efficient reallocation of workers. Union power could also allow workers appropriating the benefits of investments by employers, giving rise to the so-called "hold-up" problem (Malcomson, 1997[49]) and reducing investment incentives for firms. Further, limitations to adjustments in the organisation of work (such as in working time, shifts or leave) could lower productivity. Finally, decentralisation of bargaining may promote productivity through a more frequent use of incentive schemes (such as performance pay).

The empirical literature has examined quite extensively the role of union coverage for productivity. According to a meta-analysis (Doucouliagos, Freeman and Laroche, 2017[50]), the evidence overall suggests that union coverage increases productivity in non-manufacturing industries, but not in manufacturing industries. Some papers studied empirically the relevance of collective bargaining for the "hold-up" problem and investment, with inconclusive results overall. Card, Devicienti and Maida (2014[51]), using matched employer-employee data from Italy's Veneto region, obtain little evidence of

hold-up. Based on sector-level data for OECD countries, Cardullo, Conti and Sulis (2015[52]) find that union coverage reduces investment in sunk-capital-intensive industries relative to others.

The results in this section suggest that certain collective bargaining systems can be associated with stronger misalignments of pay and productivity, with possible consequences for productivity growth. However, few papers have directly studied the role of different features of bargaining systems, such as centralisation or co-ordination, for productivity, in part due to lack of suitable data. Andreasson (2017[53]) finds that in Sweden companies for which wage-setting is more decentralised have higher value added per employee and higher productivity. Similarly, Garnero, Rycx and Terraz (2019[54]) obtain a positive link between decentralised bargaining and productivity, using Belgian firm-level data. For developing countries, Lamarche (2013[55]; 2015[56]) argues that firm-level instead of sectoral agreements could yield productivity gains. However, Hibbs and Locking (2000[57]) document that decentralisation in Sweden in the 1980s reduced aggregate productivity growth by slowing down the exit of inefficient firms. Taking the evidence from these papers together, decentralisation appears to improve firm productivity, while it may slow down the cleansing effect of higher wages and therefore, due to composition effects, not translate in higher aggregate productivity growth.

To study the links of centralisation and co-ordination with productivity growth, the following variant of the sector-level approach by Rajan and Zingales (1998[58]) is used. The premise is that collective bargaining reforms tend to affect sectors more where collective bargaining coverage is high and therefore productivity growth in these sectors should be affected more. The estimating equation is:

$$\mathrm{PG}_{sct} = \beta_1 \mathrm{Coverage}_{sc} \times \mathrm{Centralisation}_{ct} + \beta_2 \mathrm{Coverage}_{sc} \times \mathrm{Coordination}_{ct} + \mathrm{P}_{sct-1} + \alpha_{ct} + \gamma_{sc} + \varepsilon_{sct}.$$

The dependent variable, PG_{sct}, indicates productivity growth in sector s, country c and year t. The lagged level of productivity, P_{sct-1}, accounts for convergence. Regressions are run for total factor and labour productivity. Estimation of the coefficients of interests, β, requires variation in coverage across sectors and centralisation or co-ordination across time. This is the case for seven countries with available data: Austria, Denmark, Finland, France, Germany, the Netherlands and Spain.

Centralisation is linked with lower productivity growth, both for total factor and labour productivity – the full set of empirical results is available in Annex 3.C. Productivity growth is higher in high compared with low coverage sectors when collective bargaining is more decentralised. No association is estimated for wage co-ordination. The estimation, which relies on sector comparisons, does not readily allow conclusions on aggregate productivity growth. It also does not rule out issues of endogeneity, despite relying only on within-country variation. Yet, the results suggest that centralised bargaining may come at the expense of lower productivity growth, although analysis beyond these empirical explorations is needed to examine the links between bargaining regimes and productivity further.

3.4. Balancing inclusiveness and flexibility in collective bargaining systems

The future of collective bargaining, its relevance and function, will depend on how it will adapt to changing labour market conditions. Social partners and governments should aim to reap the benefits of collective bargaining for employment and inclusiveness while avoiding that collective bargaining becomes a straitjacket, by ensuring that firms are able to adjust wages and working time when their business situation requires it.

This chapter has put forward new evidence based on a range of data sources (country-, sector-, firm- and worker-level data) that suggests that, to a certain extent, collective bargaining has historically meant a trade-off between inclusiveness and flexibility. In countries and periods when collective bargaining was not confined to firm-level bargaining (or simply absent), wage inequality has been lower and employment, including of vulnerable groups, has been higher. Wage co-ordination can also have the benefit of

strengthening the resilience of the economy against business-cycle downturns (OECD, 2017[2]). This chapter and the literature, however, have also provided evidence that more centralised bargaining at sectoral or national level may come at the cost of reduced flexibility to adjust pay and working conditions in line with business conditions for the individual sector or firm, with potentially adverse implications for productivity.

This section discusses possible pathways going forward, through the combined use of tools that help promote inclusiveness (Section 3.4.1) and tools that help promote flexibility (Section 3.4.2). Inclusiveness in this context is to a large extent about being represented; hence, a strong emphasis is placed on broad-based collective bargaining and social dialogue. Flexibility can be attained in many ways, but the challenge is to nest it within systems that deliver broad-based coverage. Organised decentralisation (which leaves space for firm-level agreements to set the terms of employment within a broader framework of sectoral agreements), high levels of representation at the local level and wage co-ordination across sectors are among the elements that hold most promise to effectively balance inclusiveness with flexibility.

3.4.1. Promoting broad-based collective bargaining and social dialogue

Broad-based employer and employee organisations tend to be the best way for countries to attain high collective bargaining coverage

For collective bargaining to have meaningful macroeconomic effects, it needs to involve and cover a large share of workers and companies. Well-organised social partners – unions and employer organisations with a broad support base – are often the condition for attaining high coverage. Declining coverage rates in several countries have reduced the potential role of collective bargaining for promoting earnings equality and social cohesion. In countries where coverage has held up but trade union density has declined, questions about the legitimacy and representativeness of trade unions are sometimes raised.

Currently, the union membership rate is above 50% only in OECD countries with the so-called “Ghent system”, i.e. where union-affiliated institutions administer unemployment benefits (Denmark, Finland, Iceland, Sweden and partly Belgium), and in Norway. However, even the Ghent system has been gradually eroded through the development of private insurance funds. The use of administrative extensions and *erga omnes* clauses that extend collective agreements to non-unionised workers and non-covered companies may have weakened the incentives to join a union (as non-union members enjoy the same rights as union members). Several countries use fiscal incentives to promote trade union membership. Norway, for instance, subsidises union membership through tax breaks. Barth, Bryson and Dale-Olsen (2017[59]) show that the increase in the generosity of the subsidy from 7% of the average membership fee in 2001 to 21% in 2012 was important for slowing the decline in trade union density. Other examples are Sweden, which has just reintroduced a subsidy for union members that had been abolished in 2007, and Finland, where union membership fees and employer confederation fees are tax-deductible.

Affiliation to employer organisations is significantly higher (50% on average) and has been quite stable over the last few decades, in contrast to the strong decline in union membership. An extreme case is Austria where membership to the sectoral branch of the chamber of commerce (*Wirtschaftskammer Österreich* or WKÖ) in each region (*Bundesland*) is compulsory for all companies. Sectoral agreements signed at the regional or in some cases national level therefore necessarily cover all firms in the sector, obviating the potential need of formal extension measures by the government. Studying the trends in 13 European countries, Brandl and Lehr (2016[60]) argue that employer organisations have been able to remain relatively strong by adapting their organisational structures and activities to the changing needs of businesses. Moreover, the use of administrative extensions of collective agreements in many countries strengthens the incentives for membership to employer organisations since the terms of agreements also apply to non-members (whose objectives may be different to those of members).

Even in countries where company-level bargaining plays a significant role, it is often mostly confined to large and medium-sized enterprises. To extend social dialogue to all segments of society, some governments have tried to promote social dialogue in small firms. One example is the 2017 labour market reform in France. This introduced the possibility for companies with less than 20 employees to call workers to vote on a company-level agreement even in the absence of a union delegate, provided at least two-thirds of employees support the agreement. It also allowed companies with 20 to 50 employees to negotiate with an elected representative even if not explicitly mandated by the unions. Unions fear that these initiatives to promote social dialogue in small businesses will in fact lead to abuses by employers who have stronger bargaining power than employees. However, in France the role of firm-level bargaining remains quite tightly defined by sectoral agreements which, very often (at least until the 2017 reform), explicitly block renegotiations and derogations at the firm level on most topics. Another example comes from Italy, where the government in 2017 increased tax incentives to promote negotiations on performance-related pay and welfare provisions at the firm level with the stated aim of extending firm-level bargaining also to medium and small firms and strengthen the link between productivity and wage increases at the firm level (D'Amuri and Nizzi, 2017[61]).

The rise of non-standard and new forms of work represents a major challenge for collective bargaining systems (see Chapter 5). The meaning of "employer", "employee" and "place of work" becomes increasingly blurred, impeding the ways in which employers and employees have negotiated traditionally. Unions are making efforts to reach out to workers in new forms of work. Non-union labour movements to defend workers' interests are also emerging. Technology and social media help workers organise by facilitating building communities and engaging in protests, boycotts and petitions. Moreover, direct forms of voice such as regular meetings, team briefings and problem-solving groups may contribute to fill in for unions and representative bodies (Bryson, Forth and George, 2012[62]; Bryson et al., 2017[63]).

Such alternative forms of collective organisation are a tool for preserving some form of workers' voice at times of rapid changes to work relationships. But these new bodies are often not entitled or may not even want to engage in direct negotiations with employers. Hence, some employers fear that these alternative forms of organisation represent a threat to the traditional forms of collective bargaining that have been based on negotiations and industrial peace. Moreover, some restrictions to worker and employer organisation may come from labour and competition laws which are often based on traditional concepts of "employer" and "employee". For instance, in the case of platform workers, but also of the self-employed more generally, a key challenge is that bargaining collectively on wages would be against the traditional interpretation of competition rules which tend to consider them as "undertakings" (Daskalova, 2017[64]). This highlights the importance of legal reform to clarify the scope for collective bargaining and support the emergence of new forms of social dialogue.

Extensions can be an alternative to support wide coverage of collective agreements when social partners are weak, but have to be well regulated

In the absence of broad-based social partners, another way of making collective bargaining coverage more inclusive is through the use of administrative extensions. These extend the coverage of collective agreements beyond the members of the signatory unions and employer organisations to all workers and firms in a sector. Extensions level the playing field across firms in a sector and reduce the burden associated with lengthy and detailed negotiations, which can be particularly relevant for small firms. In addition, they support the sustainability of "public goods", including sectoral training and mobility schemes funded by collective agreements. However, extensions can also have downsides, as they may be used as a tool for unfair competition and harm the economic prospects of those not represented at the negotiation table, such as start-ups, small firms or vulnerable workers – see Haucap, Pauly and Wey (2001[65]), Magruder (2012[66]) and Hijzen and Martins (2016[67]).

To avoid or minimise the potential negative effects, it is important that the parties negotiating the agreement represent the interests of a wide range of firms and workers and leave some "escape valves" for specific cases. This can be achieved by requiring reasonable representativeness criteria and a meaningful test of public interest, while establishing well-defined procedures for exemptions and opt-outs in case of serious economic hardship.[25]

As discussed above, extensions may weaken incentives for trade union membership. This, in turn, may have adverse consequences for the quality of labour relations but also make it harder to introduce more flexibility in the system through the use of decentralised organisation (see Section 3.4.2). Extensions therefore can play a useful role for ensuring that all employees in a sector are covered but do not provide a one-to-one substitute for collective organisation.

Extensions of collective agreements can only be used in countries with some form of sectoral agreements. The case of Australia, where a government body determines minimum standards for each sector, represents an alternative approach for ensuring basic terms of employment among all firms in a sector (Box 3.5). The main challenge of this system is the difficulty to establish appropriate sectoral standards, as this presupposes detailed knowledge of the sector which may often require a strong involvement of the social partners.

Box 3.5. An alternative to sectoral bargaining? The case of Modern Awards in Australia

Australia does not have sectoral bargaining, but a form of industry- or occupation-wide regulations, so-called Modern Awards, which set industry-specific wage floors that vary by skill level. While some 36% of employees are covered directly by collective agreements, another 23% are covered by awards only. That is, around three-fifths of employees have wages that are not determined by the employer and the individual employee but instead either through collective bargaining or an external regulator. This is well above the average rate of collective bargaining coverage across the OECD. The system has been in place for several decades and a similar organisational arrangement was in place in New Zealand until 1991 – see Peetz and Rasmussen (2018[68]) for a detailed analysis of the functioning of Modern Awards.

Awards in Australia set sectoral minimum wages that vary according to the skill level of the job, with provisions for night and weekend premiums ("penalty rates"), overtime pay, working time and other dimensions of working conditions. A Modern Award covers a whole industry in most states and territories (some states have retained their workplace relations practices). Australia also has a "national minimum wage", but this is usually fixed at the lowest rate in any award and adjusted every year at the same time as the rest of the award pay structure.

Awards are set by a federal tribunal, the Fair Work Commission, whose members are chosen by the government and selected among employer bodies, unions, lawyers and government officials. Unions and employers make submissions on the content of Modern Awards and then the Fair Work Commission decides. The Commission is also tasked with revising, after consultations, wage rates (recently every four years). Outside these reviews, the relationship between awards is quite stable and award wage increases in one industry rarely outpace, or fall behind, those in other industries.

With the support of employees, employers can deviate from the terms set in the awards, in particular those relating to working hours, through specified processes, but workers should still be better off overall. Mechanisms exist to adjust to temporary, special circumstances, but these are not widely used.

Modern Awards do not represent a form of sectoral bargaining, but they create a set of industry-specific skill-varying wage floors which, while significantly different, can be compared with the use of administrative extensions in countries with sectoral bargaining.

3.4.2. Ensuring that collective bargaining systems are able to respond to changing and unexpected challenges

Collective bargaining and social dialogue should also support strong economic outcomes, which may require ensuring that working conditions are sufficiently well-aligned with economic conditions. This can be achieved by allowing some degree of flexibility at the firm or worker level or through the use of mechanisms to co-ordinate bargaining outcomes across sectors or firms with a focus on macroeconomic performance. Moreover, social partners can play a key role in supporting job transitions and ensuring that workers are equipped with the skills needed.

Leaving more scope for company-level bargaining does not require disavowing sectoral bargaining

Debates on collective bargaining have largely focused on the level of negotiation. The introduction of flexibility in predominantly sectoral systems has therefore often been considered as requiring a shift from sectoral to firm-level bargaining. While such a shift would indeed provide more flexibility to firms, it may also induce a decline in coverage, undermining the inclusiveness of the system.[26] However, experiences from a number of countries show that less radical options, typically referred to under the heading of "organised decentralisation" (Traxler, 1995[69]), are available. These have the advantage of preserving sectoral bargaining, while enabling a closer link between productivity and working conditions at the firm level.

Organised decentralisation occurs within the framework provided by sectoral agreements, while explicitly allowing elements of working conditions and work organisation to be negotiated or determined at the company or even worker level under certain conditions through specific procedures. In principle, the sectoral framework should preserve collective bargaining coverage and give firms and workers more freedom to set working conditions. Decentralisation usually takes place through company collective agreements with trade unions, but in some cases also through agreements by the management with non-union worker representatives (such as works councils) or individual employees. For Traxler (1995[69]), who coined the term, organised decentralisation stands in contrast to "disorganised decentralisation", a system where firm-level agreements entirely replace sectoral agreements and many workers are left without representation.

Organised decentralisation can take several forms – see Ibsen and Keune (2018[70]) for more details. In a first model, sectoral agreements provide a general framework but leave room for lower-level agreements to tailor the terms of employment. This approach is thus predicated on multi-level bargaining and strong local representation (or extensions) and can be found in Denmark, Norway and Sweden, for instance. In these countries, the favourability principle is not set in the law but entirely left to the bargaining parties who decide whether and in which case it applies. In this first form of organised decentralisation, sectoral agreements can take the following forms or a mix of them:

- Minimum agreements: They set minimum standards but leave the setting of actual wages and working conditions up to company agreements, with the condition that they respect the minimum standards.
- Corridor agreements: They set the boundaries (minimum and maximum) between which the terms of employment in company-level agreements can be set.
- Default agreements: They set wages and working conditions, but these come only into force in case local parties do not find an agreement. Hence, company agreements can also set wages and working conditions below the default levels.
- Figureless agreements: They contain no wage standards which are entirely left to the company level.

In practice, few "pure" agreements exist, as even default agreements may include some common standards.

Sectoral agreements can also allow for a different type of decentralisation where working conditions are not set by a company agreement but by individual workers. Such *à-la-carte* arrangements offer individuals the option to exchange, within predefined limits, wages, working time and free time. In some cases, company-level agreements introduce this option for the workforce ("mandated *à-la-carte*"). In others, this is done in the sectoral agreement, regardless of a company-level agreement ("un-mandated"). *À-la-carte* arrangements tend to be important in the Netherlands where the scope for bargaining at the firm in addition to the sectoral level tends to be limited beyond certain industries and larger firms, given relatively low levels of local representation (Visser, 2016[71]).

In a second model of organised decentralisation, notably present in Germany and Austria, sectoral agreements set the standard terms of employment and allow for exceptions to the favourability principle via opt-out or derogation clauses. These clauses, often also known as competition, hardship or opening clauses, allow company-level agreements to deviate downwards from wages and working conditions set in a sectoral agreement. Traditionally, such clauses were intended to apply to companies in serious economic problems for a temporary time period under predefined conditions.[27] Since 2004 in Germany, opening clauses have been used more generally by companies to reduce labour costs. Some clauses allow companies to postpone or cancel parts of the sectoral agreement, notably wage increases, depending on the type or economic situation of the company.

In Germany, opening clauses are usually contingent upon an initial agreement between the signatory social partners in the industry or region. There is some leeway in designing the clause, in terms of what substantive issues it includes (wages, working time, employment guarantees, etc.) and under what conditions and according to which procedures the derogation can be made. According to Schulten and Bispinck (2017[72]), company-level parties (management and works council) usually make a joint application to the signatory parties at sectoral level which take the final decision. It is, however, also possible to derogate the final decision-making competence to the company-level parties. According to a recent study (Amlinger and Bispinck, 2016[73]), derogation agreements concern mainly working time (14% of all companies covered by a collective agreement), wages (10%), allowances (10%), annual bonuses (10%) and apprenticeship pay (3%). The clauses in sectoral agreements mainly define the rules and conditions under which the derogation can be made, in particular:

- Companies have to disclose their financial information to justify a derogation;
- Parties at the company and industry level need to have the time to scrutinise the company's financial status and the measures taken;
- The duration of the derogation should be limited to ensure terms and conditions will return to the standards in the sectoral agreement;
- Derogations are conditional on the safeguarding of jobs or investment plans to make the company more viable.

In addition to these bi-partite procedures, unions have instated their own procedural requirements to avoid that derogations are agreed between local parties without workers getting something in exchange. According to Haipeter and Lehndorff (2014[74]) and Schulten and Bispinck (2017[72]), such internal union procedures have helped ensure a controlled use of opt-outs. Baccaro and Benassi (2017[75]) are less optimistic, as control through internal procedures is only strong in some sectors, notably metalworking where unions are still strong locally. In the German retail sector, by contrast, decentralisation has been less "organised", since unions and works councils are less prevalent and employers have rather opted for non-binding membership to the employer association or no membership at all. With limited use of extensions, this has led to a substantial decrease in bargaining coverage.

Although strict conditions on the use of opening clauses help ensure that the decentralisation process remains organised, they may also severely diminish their role. Where opening clauses exist, opt-outs are mostly used by large firms which are not necessarily those most in need. Small firms are often not able to make use of derogations and opt-out clauses because they lack the capacity or worker representation. In a possibly extreme, but not totally unlikely scenario, opt-outs with very strict conditions may become an anti-competitive tool: Large firms could first negotiate relatively generous conditions in sectoral agreements and then opt out to improve the terms in their favour, leaving competitors to bear the brunt of the generous terms they negotiated.[28]

Overall, organised decentralisation appears to be able to increase the flexibility of the system, at least to some extent, without being accompanied by a substantial decline in the number of workers being represented. This is the case in countries where well-regulated extensions help attain high collective bargaining coverage (as in the Netherlands), where membership of trade unions is high (as in the Nordic countries) and where employer association density is high (as in Austria). In Germany, the introduction of opening clauses has been accompanied by a reduced use of extensions and a decline in bargaining coverage. Special forms of membership with the employer association (so-called *Ohne Tarifbindung-Mitgliedschaft*), which do not bind companies to collective agreements, have added to the disengagement of employers from bargaining. The experience of Germany exemplifies the difficulty of organised decentralisation in a context where the degree of local representation is relatively weak. In such a context, the scope for opt-out is limited for some firms, increasing incentives for disengaging from employer associations altogether, contributing to the decline in collective bargaining coverage. In the end, decentralisation in Germany represents a combination of organised and disorganised elements, as Visser (2016[71]), Oberfichtner and Schnabel (2017[76]) also noted.

Several countries, especially in Southern Europe in the wake of the euro area crisis, introduced reforms to increase the flexibility of their collective bargaining systems along the lines of the German model. Examples are Spain (OECD, 2014[77]), Portugal (OECD, 2017[78]) and, to a different extent, Greece (OECD, 2016[79]). Special attention should be paid in the coming years to a careful evaluation of the introduction of opening clauses in countries which did not have them and their possible interaction with other elements of the collective bargaining system. The absence of strong worker representation at the local level in the form of unions or works councils limits the scope of such reforms and may increase incentives for firms to leave an employer association in the absence of extensions or to opt for less organised forms of collective bargaining.

Wage co-ordination can strengthen flexibility to macroeconomic conditions

OECD (2012[18]) and OECD (2017[2]) have found that wage co-ordination across sectors can contribute to labour market resilience in the aftermath of an economic downturn thanks to greater flexibility in earnings (i.e. working time and wages) and better employment outcomes based on wage moderation. The new evidence reported in Section 3.2 on the link between collective bargaining systems and employment provides further support for these results.

Co-ordination works either by having sectoral or firm-level agreements following the guidelines fixed by peak-level organisations or a social pact or by identifying a leading sector (or group of companies) which sets the mark for others to follow (“pattern bargaining”).

Guidelines by peak-level organisations define norms or objectives that should be followed when bargaining at lower levels. They are present in several countries but they tend to be binding only in countries where peak-level unions or employer organisations are relatively strong and centralised (in the Nordic countries and to a significantly lower extent in France and Italy).

A social pact is a peak-level deal over a comprehensive policy package that is negotiated between the government, trade unions and employer organisations. By bringing all parties to the same table at the national level, it helps devising a widely shared response, especially in the case of macroeconomic shocks.

This therefore represents a strong form of co-ordination. As argued in OECD (2017[2]), peak-level co-ordination and social pacts can reduce transaction costs involved in the negotiation of temporary wage and working-time reductions and make them more acceptable to workers by ensuring that they are widely shared.

The objective of pattern bargaining is to support macroeconomic performance based on international competitiveness, both in good and bad times. A concrete example of pattern bargaining is Sweden, where the tradable sector (mainly manufacturing) sets the "cost mark" (an increase in the wage bill for that year), looking at productivity and wage developments in other countries. The cost mark represents a reference ceiling for the other sectors. In this case, the role of firm-level bargaining is mainly called to decide on the distribution of wage increases within the firm (with exceptions).[29] Pattern bargaining, in different forms, is also present in Austria, Denmark, Germany, Japan, the Netherlands and Norway.

A precondition for a well-functioning co-ordination of wage bargaining is to have strong and representative employer and employee organisations. Wage co-ordination requires a high level of trust in and between the social partners and the availability of objective and shared information on the labour market situation. Enforcing maximum wage targets is not straightforward, especially if some non-tradable sectors can afford more than the agreed "cost mark". Ibsen (2016[80]) highlights the role of mediation bodies for the functioning of pattern bargaining in Denmark and Sweden. In Denmark, the mediation institution can call for the approval of all agreements into one majoritarian union ballot, which effectively forces potential defectors into the agreement. In Sweden, the mediation process works rather through persuasion and naming and shaming. Conversely, the lack of effective mediation bodies is considered as one of the reasons behind the decline of pattern bargaining in Germany. The unique degree of self-regulation by the social partners makes co-ordination fundamentally different from centralisation which is commonly written in laws or regulations.

A further consideration is that the share of manufacturing in total employment and GDP has been decreasing in most countries, putting into question its role as leading sector in pattern bargaining and the sustainability of co-ordination through pattern bargaining in the future. In the Swedish context, the Labour Market Policy Council highlighted that, if this situation were to persist, there is a risk of a collapse of the current co-ordination system (Arbetsmarknadsekonomiska rådet, 2017[81]). This could make it more difficult to secure wage moderation. One way to prevent this may be to take account of productivity and price developments in all tradeable sectors beyond just manufacturing when setting the "cost mark".[30]

All in all, co-ordination remains a unique tool to strengthen the resilience of the labour market and increase the inclusiveness of collective bargaining, while safeguarding the competitiveness of the national economy. However, co-ordination not only requires strong social partners at national and local levels, but it also faces increasing challenges to remain effective in a changing economic structure.

Conclusions

Using a mix of available cross-country micro-and macro data and a new characterisation of collective bargaining systems based on the main elements identified in Chapter 2, i.e. collective bargaining coverage, the level of bargaining the degree of flexibility and the role of wage co-ordination, this chapter has shed light on the link between bargaining systems and employment, wages and productivity.

The results show that co-ordinated collective bargaining systems are associated with higher employment, lower unemployment, a better integration of vulnerable groups and less wage inequality than fully decentralised systems. This highlights they role of wage co-ordination as a tool to ensure that collective agreements are set taking into account their macroeconomic effects without undermining the external competitiveness of the country as well as accounting for the business-cycle situation. In countries where there is wage co-ordination, it tends to be strongly supported by employer associations, since it contributed to moderate wage growth, and trade unions, since it has ensured high levels of employment.

At the individual level (within countries), there is a wage premium for employees who are covered by firm-level bargaining compared with those not covered or those covered only by sectoral bargaining. Moreover, wage dispersion is greater in systems with no collective bargaining, or where firms set wages independently. By contrast, wage dispersion is on average smallest among workers who are covered by sectoral bargaining. Centralised bargaining systems tend to be associated with lower productivity growth if coverage of agreements is high. This result suggests that the lack of flexibility at the firm level, which characterises centralised bargaining systems, may come at the expense of lower productivity growth. By contrast, higher co-ordination in systems that are not centralised is not found to have adverse effects on productivity.

While many OECD countries have taken steps towards decentralisation in the past two decades, the best outcomes in terms of employment, productivity and wages are reached when sectoral agreements set broad framework conditions but leave detailed provisions to firm-level negotiations. By contrast, other forms of decentralisation that simply replace sectoral with firm-level bargaining, without co-ordination within and across sectors, tend to be associated with somewhat poorer labour market outcomes.

Therefore the main challenge for social partners and governments is to adjust collective bargaining systems, as to use it to reach better outcomes in terms of employment, job quality and inclusiveness, while leaving scope for firms to adapt rules to their own realities. The exact nature of this challenge and the way it is addressed will differ from country to country and depend to an important extent on the existing national collective bargaining traditions.

References

Acemoglu, D. and J. Pischke (1999), "The structure of wages and investment in general training", *Journal of Political Economy*, Vol. 107/3, pp. 539-572. [47]

Aidt, T. and Z. Tzannatos (2008), "Trade unions, collective bargaining and macroeconomic performance: a review", *Industrial Relations Journal*, Vol. 39/4, pp. 258-295. [6]

Aidt, T. and Z. Tzannatos (2002), *Unions and collective bargaining : Economic effects in a global environment*, The World Bank, Washington, DC. [12]

Amlinger, M. and R. Bispinck (2016), "Dezentralisierung der Tarifpolitik – Ergebnisse der WSI-Betriebsrätebefragung 2015", *WSI-Mitteilungen*, Vol. 3, pp. 211-222. [73]

Andreasson, H. (2017), "The effect of decentralized wage bargaining on the structure of wages and firm performance", *Ratio Working Paper*, No. 241. [53]

Arbetsmarknadsekonomiska rådet (2017), *The duality of the Swedish labour market: Summary of the Swedish Labour Policy Council report*, Arbetsmarknadsekonomiska rådet, Stockholm. [81]

Autor, D. (2003), "Outsourcing at will: The contribution of unjust dismissal doctrine to the growth of employment outsourcing", *Journal of Labor Economics*, Vol. 21/1, pp. 1-42. [25]

Azar, J., I. Marinescu and M. Steinbaum (2017), "Labor market concentration", *Working Paper*, No. 24147, NBER, Cambridge, MA. [97]

Baccaro, L. and C. Benassi (2017), "Softening institutions: The liberalization of German industrial relations", in Howell, C. (ed.), *European industrial relations: Trajectories of neoliberal transformation*, Cambridge University Press, Cambridge. [75]

Baker, D. et al. (2005), "Labor market institutions and unemployment: Assessment of the cross-country evidence", in Howell, D. (ed.), *Fighting unemployment: The limits of free market orthodoxy*, Oxford University Press. [96]

Barth, E., A. Bryson and H. Dale-Olsen (2017), "Union density, productivity and wages", *IZA Discussion Paper*, No. 11111. [59]

Bassanini, A. and R. Duval (2006), "Employment patterns in OECD countries: Reassessing the role of policies and institutions", *OECD Social, Employment and Migration Working Papers*, No. 35, OECD Publishing, Paris, http://dx.doi.org/10.1787/702031136412. [13]

Benmelech, E., N. Bergman and H. Kim (2018), "Strong employers and weak employees: How does employer concentration affect wages?", *NBER Working Paper*, No. 24307. [95]

Berlingieri, G., P. Blanchenay and C. Criscuolo (2017), "The great divergence(s)", *OECD Science, Technology and Industry Policy Papers*, No. 39, OECD Publishing, Paris, http://dx.doi.org/10.1787/953f3853-en. [40]

Bertola, G. (1999), "Microeconomic perspectives on aggregate labor markets", in Ashenfelter, O. and D. Card (eds.), *Handbook of Labor Economics*, Elsevier. [22]

Blanchflower, D. and R. Freeman (1993), "Did the Thatcher reforms change British labour performance?", *NBER Working Papers*. [27]

Blau, F. et al. (1999), "Institutions and laws in the labor market", in Ashenfelter, O. and D. Card (eds.), *Handbook of Labor Economics*, Elsevier. [28]

Boeri, T. (2014), "Two-tier bargaining"*, IZA Discussion Paper*, No. 8358. [20]

Brandl, B. and A. Lehr (2016), "The strange non-death of employer and business associations: An analysis of their representativeness and activities in Western European countries", *Economic and Industrial Democracy*, pp. 1-22. [60]

Braun, S. (2011), "Unionisation structures, productivity and firm performance: New insights from a heterogeneous firm model", *Labour Economics*, Vol. 18/1, pp. 120-129. [46]

Bryson, A., J. Forth and A. George (2012), *Workplace social dialogue in Europe: An analysis of the European Company Survey 2009*, Eurofound, Dublin. [62]

Bryson, A. et al. (2017), "The twin track model of employee voice: An Anglo-American perspective on union decline and the rise of alternative forms of voice"*, IZA Discussion Paper*, No. 11223. [63]

Calmfors, L. and J. Driffill (1988), "Bargaining structure, corporatism and macroeconomic performance", *Economic Policy*, Vol. 3/6, p. 13. [8]

Cameron, D. (1984), "Social democracy, corporatism, labour quiescence and the representation of economic interest in advanced capitalist societies", in Goldthorpe, J. (ed.), *Order and conflict in contemporary capitalism*, Oxford University Press, Oxford. [7]

Card, D., F. Devicienti and A. Maida (2014), "Rent-sharing, holdup, and wages: Evidence from matched panel data", *Review of Economic Studies*, Vol. 81/1, pp. 84-111. [51]

Card, D., T. Lemieux and W. Riddell (2004), "Unions and wage inequality", *Journal of Labor Research*, Vol. 25/4, pp. 519-559. [29]

Cardoso, A. and P. Portugal (2005), "Contractual wages and the wage cushion under different bargaining settings", *Journal of Labor Economics*, Vol. 23/4, pp. 875-902. [38]

Cardullo, G., M. Conti and G. Sulis (2015), "Sunk capital, unions and the hold-up problem: Theory and evidence from cross-country sectoral data", *European Economic Review*, Vol. 76, pp. 253-274. [52]

D'Amuri, F. and R. Nizzi (2017), "Recent developments of Italy's industrial relations system"*, Questioni di Economia e Finanza (Occasional Papers)*, No. 416. [61]

Daskalova, V. (2017), "Regulating the new self-employed in the Uber economy: What role for EU competition law?"*, TILEC Discussion Paper No. 2017-028*, Tilburg University. [64]

de Beer, P. and M. Keune (2017), "Dutch unions in a time of crisis", in Lehndorff, S., H. Dribbusch and T. Schulten (eds.), *Rough waters European trade unions in a time of crises*, ETUI, Brussels. [44]

de Serres, A. and F. Murtin (2014), "Unemployment at risk: the policy determinants of labour market exposure to economic shocks", *Economic Policy*, Vol. 29/80, pp. 603-637. [94]

Delahaie, N., S. Vandekerckhove and C. Vincent (2015), "Wages and collective bargaining systems in Europe during the crisis", in Van Gyes, G. and T. Schulten (eds.), *Wage bargaining under the new European Economic Governance*, ETUI, Brussels. [93]

Dell'Aringa, C. and C. Lucifora (1994), "Collective bargaining and relative earnings in Italy", *European Journal of Political Economy*, Vol. 10/4, pp. 727-747. [35]

Diez-Catalan, L. and E. Villanueva (2015), "Contract staggering and unemployment during the Great Recession: Evidence from Spain"*, Working Paper*, No. 1431, Banco de Espana. [43]

DiNardo, J., N. Fortin and T. Lemieux (1996), "Labor market institutions and the distribution of wages, 1973-1992: A semiparametric approach", *Econometrica*, Vol. 64/5, p. 1001. [92]

DiNardo, J. and D. Lee (2004), "Economic impacts of new unionization on private sector employers: 1984-2001", *Quarterly Journal of Economics*, Vol. 119/4, pp. 1383-1441. [30]

Doucouliagos, H., R. Freeman and P. Laroche (2017), *The economics of trade unions : A study of a research field and its findings*, Routledge, London. [50]

Égert, B. and P. Gal (2017), "The quantification of structural reforms in OECD countries: A new framework", *OECD Journal: Economic Studies, OECD Publishing, Paris*, Vol. 2016/1, http://dx.doi.org/10.1787/eco_studies-2016-5jg1lqspxtvk. [91]

Elmeskov, J., J. Martin and S. Scarpetta (1998), "Key lessons for labour market reforms: Evidence from OECD countries' experience", *Swedish Economic Policy Review*, Vol. 5/2. [16]

Eurofound (2017), *Developments in collectively agreed pay 2016*, Eurofound, Dublin. [42]

Eurofound (2015), *Pay in Europe in different wage-bargaining regimes*, Publications Office of the European Union, Luxembourg. [14]

European Central Bank (2002), "Monitoring wage developments: An indicator of negotiated wages", in *ECB Monthly Bulletin September 2002*, European Central Bank. [41]

Freeman, R. (1988), "Union density and economic performance: An analysis of U.S. States", *European Economic Review*, Vol. 32/2-3, pp. 707-716. [90]

Gal, P. and A. Theising (2015), "The macroeconomic impact of structural policies on labour market outcomes in OECD countries: A reassessment"*, OECD Economics Department Working Papers*, No. 1271, OECD Publishing, Paris, http://dx.doi.org/10.1787/5jrqc6t8ktjf-en. [89]

Garnero, A., F. Rycx and I. Terraz (2019), "Productivity and wage effects of firm-level collective agreements: Evidence from Belgian linked panel data"*, OECD Social, Employment and Migration Working Papers*, No. 223, OECD Publishing, Paris, https://dx.doi.org/10.1787/132aa88e-en. [54]

Gramm, C. and J. Schnell (2001), "The use of flexible staffing arrangements in core production jobs", *Industrial and Labor Relations Review*, Vol. 54/2, pp. 245-258. [24]

Haipeter, T. and S. Lehndorff (2014), "Decentralisation of collective bargaining in Germany: Fragmentation, coordination and revitalisation", *Economia & Lavoro*, Vol. 45/1, pp. 45-64. [74]

Hartog, J., E. Leuven and C. Teulings (2002), "Wages and the bargaining regime in a corporatist setting: The Netherlands", *European Journal of Political Economy*, Vol. 18/2, pp. 317-331. [36]

Haucap, J., U. Pauly and C. Wey (2001), "Collective wage setting when wages are generally binding: An antitrust perspective", *International Review of Law and Economics*, Vol. 21/3, pp. 287-307, http://dx.doi.org/10.1016/S0144-8188(01)00061-8. [65]

Haucap, J. and C. Wey (2004), "Unionisation structures and innovation incentives", *Economic Journal*, Vol. 114/494, pp. C149-C165. [48]

Hibbs Jr., D. and H. Locking (2000), "Wage dispersion and productive efficiency: Evidence for Sweden", *Journal of Labor Economics*, Vol. 18/4, pp. 755-782. [57]

Hijzen, A. and P. Martins (2016), "No extension without representation? Evidence from a natural experiment in collective bargaining", *IZA Discussion Paper*, No. 10204. [67]

Hijzen, A., P. Martins and J. Parlevliet (2019), "Frontal assault versus incremental change: A comparison of collective bargaining in Portugal and the Netherlands", *IZA Journal of Labor Policy*, Vol. 9/1, https://doi.org/10.2478/izajolp-2019-0008. [103]

Ibsen, C. (2016), "The role of mediation institutions in Sweden and Denmark after centralized bargaining", *British Journal of Industrial Relations*, Vol. 54/2, pp. 285-310. [80]

Ibsen, C. and M. Keune (2018), "Organised Decentralisation of Collective Bargaining: Case studies of Germany, Netherlands and Denmark", *OECD Social, Employment and Migration Working Papers*, OECD Publishing, Paris, https://doi.org/10.1787/f0394ef5-en. [70]

ILO (2015), *Labour markets, institutions and inequality: Building just societies in the 21st century*, International Labour Organization. [32]

IMF (2017), *Sweden - Selected Issues*, International Monetary Fund, Washington, DC. [99]

Jaumotte, F. and C. Buitron (2015), "Inequality and labor market institutions", *Staff Discussion Note*, No. 15/14, IMF. [33]

Juhn, C., K. Murphy and B. Pierce (1993), "Wage inequality and the rise in returns to skill", *Journal of Political Economy*, Vol. 101/3, pp. 410-442. [34]

Lamarche, C. (2015), "Collective bargaining in developing countries", *IZA World of Labor*. [56]

Lamarche, C. (2013), "Industry-wide work rules and productivity: evidence from Argentine union contract data", *IZA Journal of Labor & Development*, Vol. 2/11. [55]

Leonardi, M., M. Pellizzari and D. Tabasso (2015), "Wage compression within the firm", *CEPR Discussion Paper*, No. 10770. [26]

Leontief, W. (1946), "Wages, profit and prices", *Quarterly Journal of Economics*, Vol. 61/1, p. 26. [3]

Lindbeck, A. and D. Snower (1986), "Wage setting, unemployment, and insider-outsider relations", *American Economic Review*, Vol. 76/2, pp. 235-239. [4]

Magruder, J. (2012), "High unemployment yet few small firms: The role of centralized bargaining in South Africa", *American Economic Journal: Applied Economics*, Vol. 4/3, pp. 138-166. [66]

Malcomson, J. (1997), "Contracts, hold-up, and labor markets", *Journal of Economic Literature*, Vol. 35/4, pp. 1916-1957. [49]

Maloney, T. (1997), "Has New Zealand's Employment Contracts Act increased employment and reduced wages?", *Australian Economic Papers*, Vol. 36/69, pp. 243-264. [88]

McDonald, I. and R. Solow (1981), "Wage bargaining and employment", *American Economic Review*, Vol. 71/5, pp. 896-908. [5]

Murtin, F., A. de Serres and A. Hijzen (2014), "Unemployment and the coverage extension of collective wage agreements", *European Economic Review*, Vol. 71, pp. 52-66. [87]

Nickell, S. (1997), "Unemployment and labor market rigidities: Europe versus North America", *Journal of Economic Perspectives*, Vol. 11/3, pp. 55-74. [85]

Nickell, S. and R. Layard (1999), "Labor market institutions and economic performance", in *Handbook of Labor Economics*, Elsevier. [86]

Oberfichtner, M. and C. Schnabel (2017), "The German model of industrial relations: (Where) does it still exist?", *IZA Discussion Paper*, No. 11064. [76]

OECD (2019), "Education at a glance: Educational attainment and labour-force status", *OECD Education Statistics* (database), https://dx.doi.org/10.1787/889e8641-en (accessed on 31 October 2019). [82]

OECD (2019), *OECD Employment Outlook 2019: The Future of Work*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9ee00155-en. [101]

OECD (2018), *Good Jobs for All in a Changing World of Work: The OECD Jobs Strategy*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264308817-en. [1]

OECD (2017), *Labour market reforms in Portugal 2011-15: A preliminary assessment*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264269576-en. [78]

OECD (2017), *Les extensions administratives des accords de branche en France: Effets et pistes de réformes*, OECD Publishing, Paris, http://www.oecd.org/fr/economie/extensions-administratives-des-accords-de-branche-en-France.pdf (accessed on 29 January 2018). [102]

OECD (2017), *OECD Employment Outlook 2017*, OECD Publishing, Paris, http://dx.doi.org/10.1787/empl_outlook-2017-en. [2]

OECD (2016), *OECD Economic Surveys: Greece 2016*, OECD Publishing, Paris, https://doi.org/10.1787/eco_surveys-grc-2016-en. [79]

OECD (2016), "Promoting productivity and equality: A twin challenge", in *OECD Economic Outlook, Volume 2016 Issue 1*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_outlook-v2016-1-3-en. [100]

OECD (2016), *The Productivity-Inclusiveness Nexus: Preliminary version*, OECD Publishing, Paris, https://doi.org/10.1787/9789264258303-en (accessed on 4 February 2018). [98]

OECD (2014), *The 2012 labour market reform in Spain: A preliminary assessment*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264213586-en. [77]

OECD (2012), *OECD Employment Outlook 2012*, OECD Publishing, Paris, http://dx.doi.org/10.1787/empl_outlook-2012-en. [18]

OECD (2011), *Divided we stand: Why inequality keeps rising*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264119536-en. [31]

OECD (2006), *OECD Employment Outlook 2006*, OECD Publishing, Paris, http://dx.doi.org/10.1787/empl_outlook-2006-en. [19]

OECD (2004), *OECD Employment Outlook 2004*, OECD Publishing, Paris, http://dx.doi.org/10.1787/empl_outlook-2004-en. [17]

OECD (1997), *OECD Employment Outlook 1997*, OECD Publishing, Paris, http://dx.doi.org/10.1787/empl_outlook-1997-en. [10]

OECD (1994), *The OECD Jobs Strategy*, OECD Publishing, Paris, http://dx.doi.org/10.1787/20743653. [9]

Peetz, D. and E. Rasmussen (2018), "Awards and collective bargaining in Australia and New Zealand", *mimeo*. [68]

Rajan, R. and L. Zingales (1998), "Financial dependence and growth", *American Economic Review*, Vol. 88/3, pp. 559-586. [58]

Rycx, F. (2003), "Industry wage differentials and the bargaining regime in a corporatist country", *International Journal of Manpower*, Vol. 24/4, pp. 347-366. [37]

Saint-Paul, G. (1996), *Dual labor markets: A macroeconomic perspective*, MIT Press, Cambridge, MA. [21]

Salvatori, A. (2009), "What do unions do to temporary employment?", *IZA Discussion Paper*, No. 4554. [23]

Scarpetta, S. (1996), "Assessing the role of labour market policies and institutional settings on unemployment: A cross-country study", *OECD Economic Studies*, No. 26, OECD Publishing, Paris, https://www.oecd.org/eco/growth/2502834.pdf (accessed on 15 January 2018). [84]

Schulten, T. (2013), "Current trends in collectively agreed wages and wage drift in Europe 2001-2010", *Hans-Böckler-Stiftung Policy Paper*. [45]

Schulten, T. and R. Bispinck (2017), "Varieties of decentralisation in German collective bargaining: Experiences from metal industry and retail trade", *CSDLE "Massimo D'Antona" Working Paper*, No. 137/2017. [72]

Schwellnus, C., M. Pak and P. Pionnier (2018), "Labour share developments over the past two decades: The role of public policies", *OECD Economics Department Working Papers*, forthcoming, OECD Publishing, Paris, https://doi.org/10.1787/b21e518b-en. [39]

Soskice, D. (1990), "Reinterpreting corporatism and explaining unemployment: Co-ordinated and non-co-ordinated market economies", in Brunetta, R. and C. Dell'Aringa (eds.), *Labour relations and economic performance*, Palgrave Macmillan, London. [15]

Traxler, F. (1995), "Farewell to labour market associations? Organized versus disorganized decentralization as a map for industrial relations", in Crouch, C. and F. Traxler (eds.), *Organized industrial relations in Europe: What future?*, Aldershot, Avebury. [69]

Traxler, F., S. Blaschke and B. Kittel (2001), *National labour relations in internationalized markets*, Oxford University Press, Oxford. [11]

Van Gyes, G. and S. Vandekerckhove (2015), "Indicators of collectively agreed wages in the euro zone: A quality report", in Van Gyes, G. and T. Schulten (eds.), *Wage bargaining under the new European Economic Governance*, ETUI, Brussels. [83]

Visser, J. (2016), “What happened to collective bargaining during the great recession?”, *IZA Journal of Labor Policy*, Vol. 5/1, p. 9. [71]

Annex 3.A. A taxonomy of collective bargaining systems

In order to provide an overarching view of the functioning of collective bargaining systems while, at the same time, capturing as much as possible the granularity, complexity and diversity across countries, a novel taxonomy of collective bargaining is used to conduct the empirical work, notably to investigate the link between the main features of collective bargaining systems and labour market performance at macro level. Three main aspects are considered to group countries based on the conceptual framework developed in Chapter 2: the level of bargaining, the degree of actual centralisation or organised decentralisation as defined by the rules and use of extensions, derogations, opt-out, and the presence of the favourability principle with respect to wages, and the degree of wage co-ordination. Grouping countries necessarily requires some simplifications and therefore the detailed discussion in Chapter 2 should be kept in mind when comparing and assessing the functioning of the different bargaining systems across countries.

The dashboard in Chapter 2 based on the answers to the OECD policy questionnaires allowed identifying five main groups of countries:

- A first group includes countries with predominantly centralised and weakly co-ordinated collective bargaining systems. In this group of countries, sectoral agreements play a strong role, extensions are relatively widely used and derogations from higher-level agreements are either limited or not often used. In 2015 France, Iceland, Italy, Portugal, Slovenia, Spain and Switzerland fell in this group.

  Note: In Chapter 2 Spain and Switzerland were mentioned in an intermediate group between the rather centralised and organised decentralised ones. The number of observations between 1980 and 2015 for such an intermediate group, however, is too small to be used for econometric purposes.
- A second group includes countries with predominantly centralised but co-ordinated collective bargaining systems. In this group of countries, sectoral agreements play a strong role as well and the room for lower level agreements to derogate from higher-level ones is also quite limited. However, wage co-ordination is quite binding. In 2015 Belgium and Finland were part of this group.
- A third group is composed by countries with co-ordinated, organised decentralised bargaining systems. In these countries, sectoral agreements play an important role but also leave significant room to lower agreements to set the standards – either by limiting the role of extensions (rare and never automatic or quasi-automatic in this group), or by leaving up to bargaining parties the design of the hierarchy of agreements (the “favourability principle”) or by allowing for the possibility to opt-out. Moreover, in this group of countries co-ordination is strong. In 2015 Austria, Denmark, Germany, the Netherlands, Norway and Sweden composed this group.
- A fourth group includes countries with collective bargaining systems where firm-level bargaining is dominant but sectoral bargaining also plays a role or there are some forms of regulation mechanisms or some degree of wage co-ordination by peak-level organisations. Extensions are very rare. Australia with its “Modern Awards” (see Box 3.5 in the Chapter), Ireland with the “Sectoral Employment Orders”, or Japan with its unique form of co-ordination (*Shunto*) were included in this group in 2015 as well as Greece, Luxembourg and Slovakia.
- The fifth group covers countries where bargaining is essentially confined to the firm/establishment level with no co-ordination and no (or very limited) influence of the government. In 2015 Canada,

Chile, Czech Republic, Estonia, United Kingdom, Hungary, Ireland, Korea, Lithuania, Latvia, Mexico, New Zealand, Poland, Turkey, United States were part of this group.

The taxonomy is then reconstructed backwards until 1980 using information on the **level of bargaining** (four levels: central or intermediate between central and industry bargaining; sectoral; intermediate between sector and company bargaining; company level, from ICTWSS), the **degree of organisation** by identifying changes in use of extensions, derogations, opt-out, and the existence of the favourability principle (as reported in ICTWSS complemented with information on policy reforms and major agreements using information from LABREF, Eurofound and the available literature) and **co-ordination** (defined as strong when COORD in ICTWSS takes the value of 5 and 4[31], and weak or absent otherwise and smoothing for one year blips, i.e. excluding changes in the variable COORD which occur in a single year).

Annex Table 3.A.1 shows the taxonomy for all OECD countries between 1980 and 2015 (central and eastern European countries only available after 1990).

Annex Table 3.A.1. A taxonomy of collective bargaining systems in OECD countries, 1980-2015

	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
Australia	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	PCW	PCW	PCW	PCW	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCW	PCW	PCW
Austria	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC
Belgium	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCW
Canada	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD
Chile	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD
Czech Republic	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	LD	LD	LD	LD											
Denmark	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	PCW	PCW	PCW	PCW	PCW	PCW	ODC
Estonia	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD												
Finland	PCC	PCC	PCC	PCC	PCC	PCW	PCW	PCW	PCW	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCW	PCW	PCW	PCC	PCC	PCC	PCW	PCW	PCC	PCC	PCC	PCC	PCC	PCC	PCW	PCW
France	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW
Germany	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	PCW	PCW	PCW	PCW	ODC	ODC	ODC	ODC	ODC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC
Greece	LD	LD	LD	LD	LD	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC
Hungary	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	LD	LD	LD										
Iceland	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW
Ireland	FD	FD	FD	FD	FD	FD	FD	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	FD	FD	FD	FD	FD	FD	PCC
Israel	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCC	PCC	PCC	PCC	PCC	PCC
Italy	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCC	PCC	PCW	PCW	PCW
Japan	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD
Korea	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD
Latvia	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD													
Lithuania	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD													
Luxembourg	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD
Mexico	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD
Netherlands	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	PCW	PCW	PCW	PCW	PCW	PCW	PCW	ODC	ODC	ODC	PCW	PCW
New Zealand	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW
Norway	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	ODC	ODC	ODC	PCW	PCW	PCW	PCW	PCW	ODC	ODC
Poland	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD											
Portugal	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCC	PCC	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCC	PCC	PCC	PCW	PCW	PCW	PCW	PCW	PCW
Slovak Republic	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	LD	PCW	PCW	PCW	PCW	PCW	PCW													

	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
Slovenia	PCW	PCW	PCW	PCW	PCW	PCW	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCW	PCW	PCC	PCC	PCC	PCC	PCC	PCW	PCW										
Spain	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCC	PCC	PCC	PCC	PCC	PCC	PCC
Sweden	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	ODC	PCW	PCW	PCW	PCW	PCW	ODC	ODC	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW
Switzerland	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCW	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC	PCC
Turkey	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD
United Kingdom	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	LD	LD	LD	LD	LD	LD	LD	PCW	PCW	PCW	PCW	PCW	PCW	PCW
United States	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD	FD

Note: Acronyms in the Table refer to the following country groupings:
PCW. Predominantly Centralised and Weakly co-ordinated
PCC. Predominantly Centralised and Co-ordinated
ODC. Organised Decentralised and Co-ordinated
LD. Largely Decentralised
FD. Fully Decentralised
Co-ordination in Switzerland in 2015 was marked as high in OECD (2017[2]), *OECD Employment Outlook 2017,* http://dx.doi.org/10.1787/empl_outlook-2017-en. The ICTWSS database, however, classifies it at an intermediate level similar to that of other countries marked as "low". To ensure consistency back in time co-ordination Switzerland has been reclassified to "low" in 2015. Spain and Switzerland in 2015 should be considered as an intermediate group. However, the number of observations between 1980 and 2015 for such an intermediate group is too small to be used for econometric purposes.
Source: OECD elaboration using the OECD policy questionnaires, ICTWSS, Eurofound, LABREF and related literature.

What is behind the changes in the taxonomy?

The main features of wage bargaining in Canada, Chile, Estonia, France, Iceland, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Mexico, Poland, Turkey and the United States appear constant between 1980 and 2015 in the proposed taxonomy.

On the opposite changes in the level of bargaining and the degree of actual centralisation have been registered in the following countries:

- Australia: in 1993, the Australian Government passed the Industrial Relations Reform Act which replaced centralised wage setting with enterprise-level collective bargaining. In 1996 the Federal Government introduced the Workplace Relations Act, which introduced individual statutory contracts into the federal system. These individual agreements were abolished in 2009;
- Germany: in 1993 the first hardship agreement and "restructuring clauses" were introduced in the German bargaining system;
- Greece: in 2011 the reforms led to a decentralisation of wage bargaining;
- Ireland: between 1987 and 2008 wage bargaining was rather centralised and co-ordinated;
- New Zealand: in 1992 the Employment Contract Act decentralised wage bargaining;
- Norway: 2001 was the first year without a central agreement;
- Sweden: in 1980s central agreements played a significant a role before being rolled out;
- United Kingdom: a series of reforms in the 1980s by the Thatcher government reduced the role of unions and decentralised collective bargaining first to an intermediate level (1987-1993), then to company level.

Less dramatic, but still notable changes have been observed in:

- Czech Republic: between 1991 and 1994 bargaining was at an intermediate level, after it has taken place mainly at firm-level (source: ICTWSS);
- Hungary: between 1990 and 1992 bargaining was at an intermediate level, after it has taken place at firm-level (source: ICTWSS);
- Israel: in the 1990s bargaining slowly decentralised. Starting in 2005 bargaining level as intermediate between sectoral and company bargaining (source: ICTWSS);
- Slovak Republic: in 2009 bargaining moved to an intermediate level between sectoral and firm-level bargaining (source: ICTWSS).

No change in the level of bargaining and the degree of actual centralisation is observed in France, Italy and Portugal since, as discussed in Chapter 2, collective bargaining over wages in these countries remain quite centralised. This may seem surprising as over the last decades the favourability principle was inverted in France and other reforms promoted firm-level bargaining. However, as argued in Chapter 2, decentralisation in France only covered non-wage working conditions while wage bargaining remained strictly in the hands of sectoral bargaining. In Italy, the scope for firm-level bargaining was also widened but it remains a tension between the rules set by social partners autonomously, which define a hierarchical relationship between bargaining levels, and jurisprudence, according to which a firm-level agreement can always depart from sectoral agreements. All in all wage bargaining has remained quite centralised over the period of observation. Finally, the recent reforms in Portugal have changed considerably the functioning of the bargaining systems but were also partly rolled back. At this stage, wage bargaining seems still rather centralised.

The degree of co-ordination, as measured in the ICTWSS database (variable COORD), also varied significantly over time:

- Australia: between 1981 and 1982 and 1992-1995 co-ordination was weak.
- Belgium: in 1980 co-ordination was weak.
- Denmark: between 1981 and 1986 co-ordination was weak.
- Finland: Several periods when co-ordination was weak.
- Germany: in 1998-2001 co-ordination was weak.
- Italy: 1983-1984 co-ordination played a somewhat significant role (in 1983 "*accordo Scotti*" to fight against inflation and in 1984 "Decreto di San Valentino" which abolished the "scala mobile", the automatic indexation of pay scales, thus reducing the role of "state-induced" wage co-ordination).
- Netherlands: in 1980-1981 and 1985-1991 co-ordination was relatively weak.
- Norway: in 1982-1987 co-ordination was weak.
- Portugal: in 1986-1988 and 1996-1997 co-ordination was weak.
- Slovenia: in 1992-1996 and 1999-2009 co-ordination played a somewhat significant role.
- Spain: in 1980-1986 and 2002-2008 co-ordination played a somewhat significant role.
- Sweden: in 1980-1990 and 1993-1997 co-ordination was weak
- Switzerland: between 1980 and 1989 co-ordination played a somewhat significant role.

Annex 3.B. Macro-data analysis: Variable description and additional material

Labour market performance

Employment rate: Employment-to-population ratio of persons aged 25-64.

Incidence of temporary employment: Number of temporary employees as a percentage of total employees aged 25-64. Further details on country-specific definitions of temporary employees can be found at: www.oecd.org/els/emp/lfsnotes_sources.pdf.

Incidence of part-time employment: Number of part-time workers (national definition) as a percentage of total employment of persons aged 25-64.

Incidence of involuntary part-time employment: Number of involuntary part-time workers defined as part-time workers (based on national definition) who could not find full-time work as a percentage of total employment of persons aged 25-64.

Unemployment rate: Number of unemployed persons as a percentage of the labour force of persons aged 25-64.

Female unemployment rate: Number of unemployed persons as a percentage of the labour force of women aged 25-64.

Youth unemployment rate: Number of unemployed persons as a percentage of the labour force of persons aged 15-24

Source: OECD Employment Database, http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm

Low-skilled unemployment rate: Number of unemployed persons as a percentage of the labour force of persons aged 25-64 having attained below upper secondary education.

Source: OECD (2019[82]), "Education at a glance: Educational attainment and labour-force status", OECD Education Statistics (database), http://dx.doi.org/10.1787/889e8641-en.

Earning dispersion indicator: Estimates of earnings used in the calculations refer to gross earnings of full-time wage and salary workers. However, this definition may slightly vary from one country to another. Further information on the national data sources and earnings concepts used in the calculations can be found at: www.oecd.org/employment/outlook.

Source: OECD Earnings Distribution Database, www.oecd.org/employment/emp/employmentdatabase-earningsandwages.htm

Hourly labour productivity: Hourly labour productivity refers to the ratio of real GDP over total hours worked.

Source: OECD (2018), "GDP per capita and productivity growth", OECD Productivity Statistics (database), http://dx.doi.org/10.1787/data-00685-en

Collective bargaining system

Collective bargaining coverage rate: Collective bargaining coverage rate corresponds to the ratio of employees covered by collective agreements, divided by all wage earners with the right to bargain.

Source: OECD http://stats.oecd.org/Index.aspx?DataSetCode=CBC and ICTWSS database (Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts), http://www.uva-aias.net/en/ictwss/.

Centralisation: Actual level of centralisation (CWB in ICTWSS) computed as:

$$LEVEL - (fAEB+OCG)/4 + (Art+DR-1)/5$$

where *LEVEL* is the predominant level at which wage bargaining takes place (from 1 for company-level bargaining to 5 for central/cross-industry-level bargaining), *fAEB* is the frequency or scope of additional enterprise bargaining (from 0 when not happening to 3 when frequent), *Art* is the articulation of enterprise bargaining (from 0 when absent to 3 when disarticulated) and *DR* is possibility of setting aside the favourability principle in higher-level agreements (from 0 when the favourability principle is inversed to 3 when the favourability is anchored in law and strictly applied without derogations.

Co-ordination: Degree of co-ordination of wage-setting derived from the variable coord in ICTWSS and recoded as no co-ordination (for values 1 and 2 of the variable *coord*), low co-ordination (for value 3 of the variable *coord*) and high co-ordination (for values 4 and 5 of the variable *coord*).

Source: ICTWSS database (Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts), http://www.uva-aias.net/en/ictwss/.

Institutional controls

Tax wedge: The tax wedge considered in this chapter is the wedge between the labour cost for the employer and the corresponding net take-home pay of the employee for single-earner couples with two children earning 100% of average worker earnings. It is expressed as the sum of personal income tax and all social security contributions as a percentage of total labour cost.

Source: OECD Taxing Wages Database.

Product market regulation: The aggregate indexes of anti-competitive product market regulation come from the OECD Regulatory Database. They vary from 0 to 6 from the least to the most restrictive.

Source: OECD Indicators of Product Market Regulation, http://www.oecd.org/eco/growth/indicatorsofproductmarketregulationhomepage.htm.

Employment protection legislation: The aggregate indexes on regulations with respect to the dismissals of workers on open-ended contracts (including additional provisions for collective dismissals) and the use of temporary contracts Separate employment protection EP indicators come from the OECD Indicators of Employment Protection (www.oecd.org/employment/protection). Both indicators vary from 0 to 6 from the least to the most stringent.

Source: OECD Employment Database, http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm.

Minimum wage: Statutory minimum wage as a percentage of median wage of full-time workers.

Source: OECD Employment Database, http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm.

Gross unemployment insurance replacement rate: UB generosity is measured on the basis of average replacement rates, defined as average unemployment benefit replacement rate across two income situations (100% and 67% of average worker earnings), three family situations (single, with dependent spouse, with spouse in work) and three different unemployment durations (first year, second and third years, and fourth and fifth years of unemployment).

Source: OECD (2018), "Taxes and benefits", OECD Social and Welfare Statistics (database), http://dx.doi.org/10.1787/data-00201-en.

Demographic controls

Share of female employment: Number of women employed as a percentage of total employment

Source: OECD Employment Database, http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm.

Average years of education: Number of years spent in education of person aged 25-64.

Source: D. Cohen and M. Soto, Growth and human capital: good data, good results, completed with Barro-Lee Educational Attainment Data (2013 update); http://www.barrolee.com/.

Annex Table 3.B.1. Effect of collective bargaining systems on labour market performance

OLS regressions using taxonomy of collective bargaining systems

	Employment rate		Incidence of temporary employment		Incidence of part-time employment		Incidence of involuntary part-time employment		Unemployment rate	
	[1]	[2]	[1]	[2]	[1]	[2]	[1]	[2]	[1]	[2]
Bargaining coverage rate	-0.074***		0.037*		0.063***		-0.034***		0.010	
	(0.016)		(0.022)		(0.014)		(0.009)		(0.016)	
Predominantly centralised and weakly co-ordinated	3.373***	1.719***	0.984	1.568**	1.120**	2.621***	-0.470	-1.244***	-0.225	0.008
	(0.630)	(0.650)	(0.685)	(0.628)	(0.487)	(0.431)	(0.443)	(0.358)	(0.568)	(0.512)
Predominantly centralised and co-ordinated	4.598***	2.630***	0.886	1.590**	-0.180	1.570***	-0.788	-1.692***	-2.187***	-1.911***
	(0.691)	(0.682)	(0.782)	(0.642)	(0.538)	(0.475)	(0.495)	(0.402)	(0.643)	(0.556)
Organised decentralised and co-ordinated	4.618***	2.734***	0.659	1.343**	-0.798	0.900	-1.337***	-2.210***	-1.105*	-0.841
	(0.715)	(0.704)	(0.727)	(0.628)	(0.711)	(0.631)	(0.484)	(0.444)	(0.657)	(0.577)
Largely decentralised	1.948***	1.546**	-0.304	-0.305	0.637	0.974*	-1.464***	-1.688***	0.841	0.897
	(0.658)	(0.650)	(0.705)	(0.782)	(0.501)	(0.537)	(0.384)	(0.340)	(0.673)	(0.631)
Observations	931	931	702	702	858	858	746	746	931	931
R-squared	0.944	0.942	0.912	0.911	0.953	0.952	0.797	0.791	0.816	0.815

Note: ***, **, *: statistically significant at the 1, 5 and 10% levels, respectively. Robust standard errors in parentheses. OLS regressions including country and time dummies, institutional variables (Tax wedges, PMR in seven sectors, EPL (both temporary and permanent), minimum wage/median wage and gross replacement rate) log of average years of education and female employment share.
Source: OECD estimates. For further details on sources and definitions see variable description above.

StatLink http://dx.doi.org/10.1787/888934027589

Annex Table 3.B.2. Effect of collective bargaining systems on unemployment outcomes by group and wage dispersion

OLS regressions using taxonomy of collective bargaining systems

	Youth unemployment rate		Female unemployment rate		Low-skilled unemployment rate		Earnings inequality: D9/D1		Earnings inequality: D9/D5		Earnings inequality: D5/D1	
	[1]	[2]	[1]	[2]	[1]	[2]	[1]	[2]	[1]	[2]	[1]	[2]
Bargaining coverage rate	0.041		0.006		0.003		-0.002		-0.001*		0.000	
	(0.031)		(0.019)		(0.023)		(0.002)		(0.001)		(0.001)	
Predominantly centralised and weakly co-ordinated	-3.982***	-3.054***	0.337	0.462	-1.025	-0.957	-0.234***	-0.289***	-0.074***	-0.098***	-0.064***	-0.055***
	(1.142)	(1.040)	(0.560)	(0.485)	(0.833)	(0.680)	(0.067)	(0.049)	(0.023)	(0.018)	(0.024)	(0.016)
Predominantly centralised and co-ordinated	-5.868***	-4.764***	-2.481***	-2.331***	-3.286***	-3.209***	-0.243***	-0.308***	-0.078***	-0.107***	-0.058**	-0.046**
	(1.363)	(1.149)	(0.683)	(0.547)	(0.949)	(0.780)	(0.075)	(0.056)	(0.026)	(0.020)	(0.029)	(0.020)
Organised decentralised and co-ordinated	-5.459***	-4.403***	-0.661	-0.518	-2.486**	-2.414***	-0.283***	-0.350***	-0.084***	-0.114***	-0.072***	-0.060***
	(1.37)	(1.207)	(0.657)	(0.560)	(1.054)	(0.908)	(0.072)	(0.051)	(0.024)	(0.017)	(0.027)	(0.019)
Largely decentralised	-2.271*	-2.046*	1.415**	1.445**	0.537	0.544	-0.211***	-0.228***	-0.034	-0.042*	-0.074***	-0.071***
	(1.195)	(1.132)	(0.710)	(0.659)	(1.243)	(1.222)	(0.060)	(0.058)	(0.023)	(0.022)	(0.019)	(0.018)
Observations	931	931	931	931	746	746	747	747	747	747	747	747
R-squared	0.848	0.847	0.820	0.820	0.893	0.893	0.957	0.957	0.970	0.970	0.940	0.940

Note: ***, **, *: statistically significant at the 1, 5 and 10% levels, respectively. Robust standard errors in parentheses. OLS regressions including country and time dummies, institutional variables (Tax wedges, PMR in seven sectors, EPL (both temporary and permanent), minimum wage/median wage and gross replacement rate) log of average years of education and female employment share.
Source: OECD estimates. For further details on sources and definitions see variable description above.

StatLink http://dx.doi.org/10.1787/888934027608

Annex Table 3.B.3. Effect of centralisation and co-ordination of collective bargaining systems on labour market performance

OLS regressions using centralisation and co-ordination variables

	Employment rate		Incidence of temporary employment		Incidence of part-time employment		Incidence of involuntary part-time employment		Unemployment rate	
	[1]	[2]	[1]	[2]	[1]	[2]	[1]	[2]	[1]	[2]
Bargaining coverage rate	-0.077***		0.037*		0.028**		-0.033***		0.018	
	(0.013)		(0.021)		(0.012)		(0.010)		(0.014)	
Centralisation of wage bargaining	3.015***	1.775***	1.469*	1.853**	2.577***	3.047***	-0.494	-1.017***	-0.249	0.036
	(0.489)	(0.552)	(0.814)	(0.818)	(0.486)	(0.472)	(0.339)	(0.300)	(0.449)	(0.440)
Centralisation of wage bargaining (squared)	-0.311***	-0.165**	-0.188	-0.228*	-0.216***	-0.271***	0.056	0.118***	-0.043	-0.076
	(0.066)	(0.074)	(0.119)	(0.121)	(0.065)	(0.064)	(0.044)	(0.040)	(0.064)	(0.062)
Co-ordination	0.673***	0.495**	-0.100	-0.075	-1.259***	-1.194***	-0.051	-0.111	-1.149***	-1.108***
	(0.187)	(0.194)	(0.283)	(0.280)	(0.227)	(0.223)	(0.116)	(0.120)	(0.196)	(0.198)
Observations	931	931	702	702	858	858	746	746	931	931
R-squared	0.947	0.944	0.912	0.912	0.955	0.955	0.787	0.781	0.827	0.827

Note: ***, **, *: statistically significant at the 1, 5 and 10% levels, respectively. Robust standard errors in parentheses. OLS regressions including country and time dummies, institutional variables (Tax wedges, PMR in seven sectors, EPL (both temporary and permanent), minimum wage/median wage and gross replacement rate) log of average years of education and female employment share.
Source: OECD estimates. For further details on sources and definitions see variable description above.

StatLink http://dx.doi.org/10.1787/888934027627

Annex Table 3.B.4. Effect of centralisation and co-ordination of collective bargaining systems on unemployment outcomes by group and wage dispersion

OLS regressions using centralisation and co-ordination variables

	Youth unemployment rate		Female unemployment rate		Low-skilled unemployment rate		Earnings inequality: D9/D1		Earnings inequality: D9/D5		Earnings inequality: D5/D1	
	[1]	[2]	[1]	[2]	[1]	[2]	[1]	[2]	[1]	[2]	[1]	[2]
Bargaining coverage rate	0.082***	-0.077***	0.010		0.006		-0.004***		-0.002***		0.000	
	(0.026)		(0.015)		(0.022)		(0.002)		(0.001)		(0.001)	
Centralisation of wage bargaining	-4.798***	-3.484***	1.078*	1.245**	-0.202	-0.105	-0.121**	-0.204***	-0.030	-0.070***	-0.045**	-0.038**
	(0.940)	'(0.915)	(0.574)	(0.548)	(0.666)	(0.590)	(0.061)	(0.052)	(0.020)	(0.018)	(0.020)	(0.016)
Centralisation of wage bargaining (squared)	0.481***	0.326***	-0.229***	-0.249***	-0.055	-0.067	0.017*	0.027***	0.005*	0.010***	0.005*	0.004*
	(0.125)	'(0.123)	(0.086)	(0.081)	(0.093)	(0.085)	(0.009)	(0.007)	(0.003)	(0.003)	(0.003)	(0.002)
Co-ordination	-1.722***	-1.534***	-1.756***	-1.732***	-1.198***	-1.185***	-0.004	-0.020	0.001	-0.007	0.002	0.003
	(0.473)	(0.471)	(0.253)	(0.252)	(0.319)	(0.319)	(0.025)	(0.023)	(0.006)	(0.006)	(0.010)	(0.009)
Observations	931	931	931	931	746	746	747	747	747	747	747	747
R-squared	0.860	0.858	0.835	0.835	0.895	0.895	0.956	0.956	0.969	0.969	0.940	0.939

Note: ***, **, *: statistically significant at the 1, 5 and 10% levels, respectively. Robust standard errors in parentheses. OLS regressions including country and time dummies, institutional variables (Tax wedges, PMR in seven sectors, EPL (both temporary and permanent), minimum wage/median wage and gross replacement rate) log of average years of education and female employment share.
Source: OECD estimates. For further details on sources and definitions see variable description above.

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Annex Table 3.B.5. Effect of CB systems on employment and unemployment rates: country tournament

	Employment rate		Unemployment rate	
	Predominantly centralised and co-ordinated	Organised decentralised and co-ordinated	Predominantly centralised and co-ordinated	Organised decentralised and co-ordinated
Full sample	**4.598*** **	**4.618*** **	**-2.187*** **	**-1.105***
Excluding:				
Australia	4.813***	4.838***	-2.671***	-1.519**
Austria	4.494***	4.666***	-2.163***	-1.121*
Belgium	4.584***	4.806***	-2.124***	-1.095*
Canada	4.565***	4.687***	-2.051***	-1.149*
Chile	4.584***	4.606***	-2.103***	-1.036
Czech Republic	4.589***	4.604***	-2.139***	-1.035
Denmark	4.560***	4.390***	-2.186***	-1.048
Estonia	4.573***	4.630***	-2.229***	-1.133*
Finland	4.695***	4.556***	-2.525***	-1.241*
France	4.550***	4.568***	-2.245***	-1.231*
Germany	4.110***	3.819***	-2.258***	-1.501**
Greece	4.853***	4.922***	-2.621***	-1.624***
Hungary	4.521***	4.572***	-2.399***	-1.284*
Ireland	2.915***	3.109***	-0.453	0.451
Israel	4.839***	4.888***	-2.488***	-1.447**
Italy	4.551***	4.686***	-2.056***	-1.139*
Japan	4.464***	4.562***	-2.177***	-1.083
Korea	5.095***	5.160***	-2.450***	-1.381**
Latvia	4.669***	4.557***	-2.206***	-1.050
Luxembourg	4.437***	4.621***	-2.107***	-1.068
Mexico	4.598***	4.618***	-2.187***	-1.105*
Netherlands	4.679***	4.594***	-2.211***	-1.098
New Zealand	4.909***	4.896***	-2.589***	-0.011
Norway	3.289***	2.302***	-1.704**	-0.579
Poland	4.584***	4.571***	-2.061***	-0.915
Portugal	4.934***	4.792***	-2.339***	-1.224*
Slovak Republic	4.693***	4.703***	-2.186***	-1.089
Slovenia	4.944***	5.047***	-2.415***	-1.355**
Spain	4.220***	4.492***	-1.224*	-0.627
Sweden	4.379***	4.842***	-2.096***	-1.372**
Switzerland	4.584***	4.515***	-2.167***	-0.995
Turkey	4.425***	4.562***	-1.882***	-0.919
United Kingdom	5.217***	5.327***	-3.545***	-2.663***
United States	4.776***	4.658***	-2.220***	-1.086*
Ireland and United Kingdom	2.907**	3.127**	-2.303**	-1.481

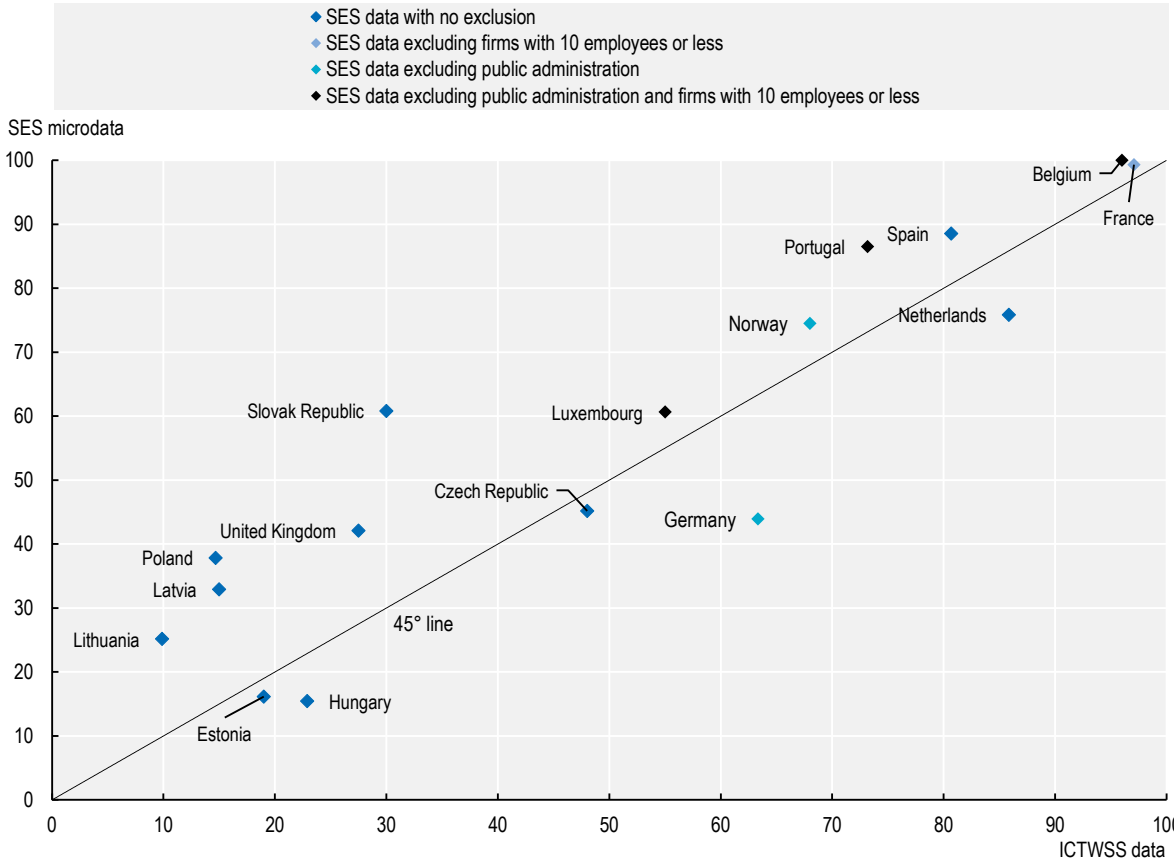
Note: ***, **, *: statistically significant at the 1, 5 and 10% levels, respectively. OLS regressions including country and time dummies, institutional variables (Tax wedges, PMR in seven sectors, EPL (both temporary and permanent), minimum wage/median wage and gross replacement rate) log of average years of education and female employment share.
Source: OECD estimates. For further details on sources and definitions see variable description above.

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Annex 3.C. Collective bargaining, wages and productivity: Additional material

Annex Figure 3.C.1. Collective bargaining coverage rates: A comparison of SES and ICTWSS

Percentage of employees with the right to bargain, 2014[1]



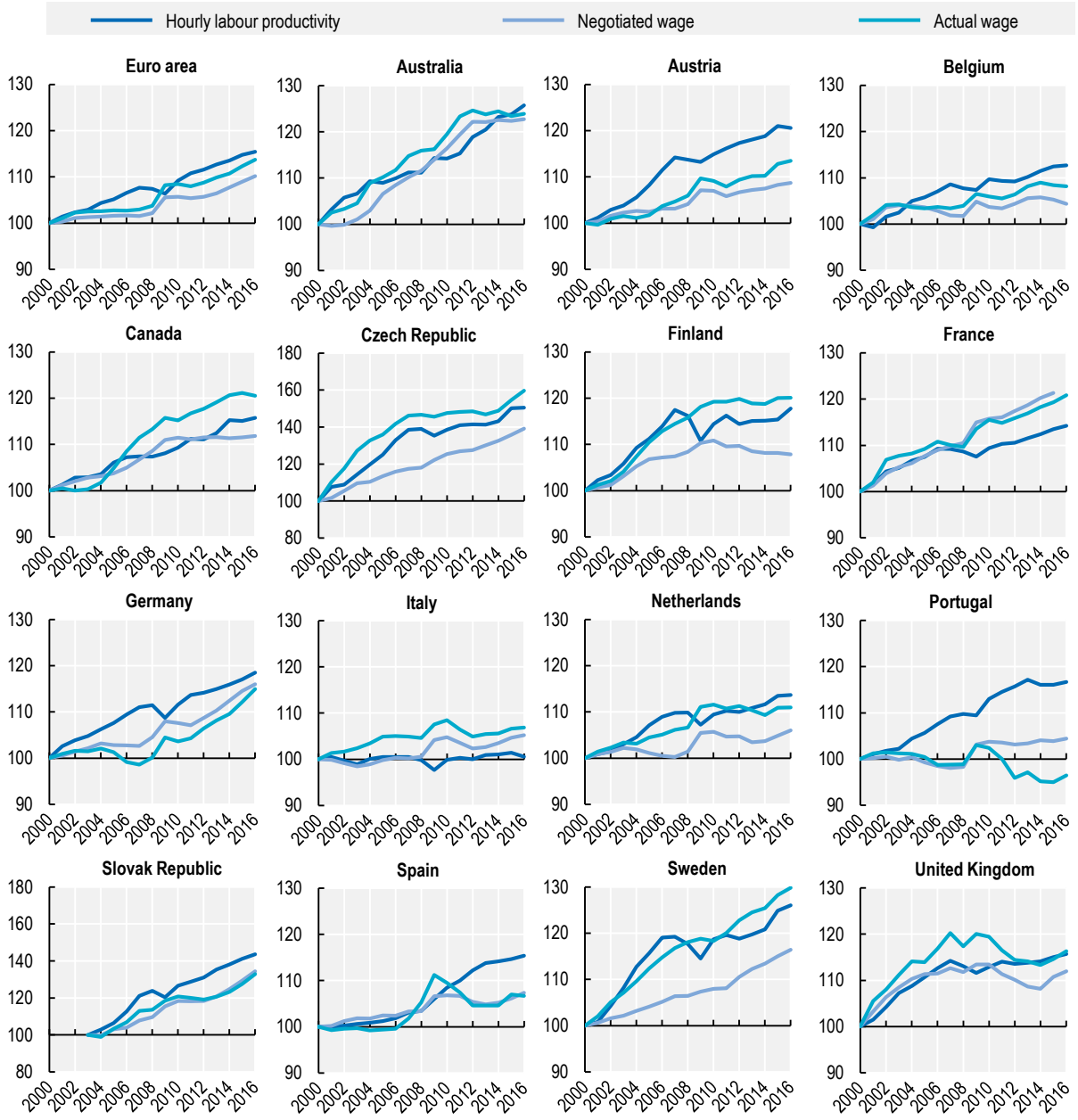
1. 2006 for Germany.

Source: OECD calculations based on the European Structure of Earnings Survey and OECD/ICTWSS Database (https://stats.oecd.org/Index.aspx?DataSetCode=CBC).

StatLink http://dx.doi.org/10.1787/888934027551

Annex Figure 3.C.2. Negotiated wages in selected OECD countries

Base 100 in 2000[1]



Note: Negotiated and actual hourly earnings are deflated using the private final consumption price index. Hourly labour productivity refers to real GDP divided by total hours worked and actual wage to total wages divided by total hours worked of employees.

Australia: Negotiated wage refers to the average weekly total cash earnings.

Belgium: Negotiated wage refers to all private sector employees registered at the National Social Security Office.

Czech Republic: Negotiated wage includes only agreements with nominal wage changes agreed.

1. Base 100 in 2003 for the Slovak Republic.

Source: **Negotiated wage**: OECD calculations based on TURI data and Eurofound, Database of wages, working time and collective disputes for the European countries, ABS Cat No. 6306.0 Employee Earnings and Hours for Australia and StatCan, Employment and Social Development Canada, Major Wage Settlements for Canada. **Hourly productivity and actual wage**: OECD calculations based on annual national accounts data.

StatLink http://dx.doi.org/10.1787/888934027570

Annex Table 3.C.1. Correlation of wages and productivity across sectors: The role of collective bargaining: Detailed results

Log hourly wage rate

	[1]	[2]	[3]	[4]	[5]	[6]
Log hourly labour productivity	0.161***	0.286***	0.231***	0.252***	0.313***	0.260***
	(0.031)	(0.042)	(0.063)	(0.072)	(0.052)	(0.079)
Interactions of log hourly labour productivity with:						
Collective bargaining coverage	-	-	-	0.001	-0.001	-0.001
				(0.001)	(0.001)	(0.001)
Centralisation	-	-0.033**	-0.020	-	-0.016	-0.012
		(0.014)	(0.019)		(0.021)	(0.022)
Low co-ordination	0.024	-	-0.024	0.027	-	-0.016
	(0.046)		(0.043)	(0.045)		(0.039)
No co-ordination	0.101**	-	0.059	0.053	-	0.046
	(0.043)		(0.052)	(0.049)		(0.054)
Joint significance of interaction coefficients (F-test, p-value)	0.06*	0.01**	0.03**	0.10*	0.04**	0.07*
Country-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	17 729	16 889	16 889	17 729	16 889	16 889
R-squared	0.98	0.98	0.98	0.98	0.98	0.98

Note: ***, **, *: statistically significant at the 1, 5 and 10% levels, respectively. To judge the statistical significance of collective bargaining institutions as a whole, the focus should be on the F-test, which tests the joint significance of all coefficients on the interactions with log hourly labour productivity. Standard errors (in brackets) are clustered at the country-industry level.
Source: OECD estimates based on OECD Annual National Accounts database completed with OECD STAN and EU-KLEMS data and ICTWSS database.

StatLink http://dx.doi.org/10.1787/888934027684

Annex Table 3.C.2. Collective bargaining and productivity growth: A sector-level approach

Difference in log productivity

	Total factor productivity growth			Labour productivity growth		
	[1]	[2]	[3]	[4]	[5]	[6]
Collective bargaining coverage x centralisation	-0.042**	-0.043**	-0.050***	-0.047*	-0.044*	-0.053**
	(0.020)	(0.020)	(0.019)	(0.025)	(0.026)	(0.026)
Collective bargaining coverage x low co-ordination	-	-0.015	-0.016	-	0.027	0.022
		(0.035)	(0.034)		(0.034)	(0.033)
Collective bargaining coverage x no co-ordination	-	0.176	0.002	-	0.552	0.379
		(0.359)	(0.262)		(0.518)	(0.451)
Lagged level of log productivity	-7.071***	-7.066***	-5.793***	-5.617***	-5.573***	-4.404***
	(2.194)	(2.195)	(1.690)	(1.793)	(1.793)	(1.386)
Country-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Country-industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2 733	2 733	2 640	2 733	2 733	2 640
R-squared	0.238	0.238	0.305	0.236	0.237	0.300

Note: Productivity is measured per hour worked. Sample of countries: Austria, Denmark, Finland, France, Germany, the Netherlands and Spain. No other countries for which data are available experience variation both in coverage rates across sectors and in centralisation over time. Columns 3 and 6 exclude observations for manufacturing of coke and refined petroleum products, many of which take extreme values. ***, **, *: statistically significant at the 1, 5 and 10% levels, respectively. Standard errors (in brackets) are clustered at the country-industry level.
Source: OECD estimates based on EU-KLEMS data, 2017 version, http://www.euklems.net/.

StatLink http://dx.doi.org/10.1787/888934027703

Notes

[1] In "efficient bargaining" models, employers and unions bargain jointly on wages and employment in a way that maximises the surplus after deduction of their outside options.

[2] While temporary employment is higher in countries with higher bargaining coverage, and some studies show that unionised workplaces are more likely to use temporary employment – see e.g. Salvatori (2009[23]), this does not constitute support to the insider/outsider theory. Indeed it remains unclear whether the higher rate of temporary employment results from unions influence or rather from union-avoidance strategies from management (since temporary workers with a lower attachment to a single workplace are less likely to join unions). In addition, these results are contrasted by others; for instance, Gramm and Schnell (2001[24]) and Autor (2003[25]) do not find corresponding evidence when looking at temporary agency work in the United States.

[3] Recent evidence from the United States and other countries suggests that monopsony power may be higher than previously thought – see, among others, Azar, Marinescu and Steinbaum (2017[97]), Benmelech, Bergman and Kim (2018[95]) and Chapter 4 in OECD (2019[101]).

[4] See Hijzen, Martins and Parlevliet (2019[103]) for a detailed comparative analysis of the collective bargaining systems in these two countries.

[5] For OECD countries, Freeman (1988[90]) found no effect of unionisation on unemployment, while Nickell (1997[85]) and Nickell and Layard (1999[86]) found a positive correlation. Scarpetta (1996[84]) suggested that a high unionisation rate tends to reinforce the persistence of unemployment. Other papers exploited policy reforms in particular countries to study the relationship of unionisation with employment: Blanchflower and Freeman (1993[27]) used the Thatcher reforms in the United Kingdom, finding no effect on unemployment and the probability of leaving unemployment. Maloney (1997[88]), by contrast, found that the reform in New Zealand that led to a sharp reduction in unionisation caused a significant increase in employment.

[6] *Erga omnes* (literally in Latin, "towards everybody") refers to the extension of agreements to all workers in the same firm, not only the members of signatory unions. *Erga omnes* differs from the administrative extension of a collective agreement which refers to the extension of a collective agreement at sectoral level to workers in firms which have not signed the agreement or are not affiliated to an employer organisation which signed the agreement.

[7] Nickell and Layard (1999[86]), for instance, find a positive effect of coverage on unemployment and a negative one on employment, while Baker et al. (2005[96]) find insignificant effects. At the OECD-level, de Serres and Murtin (2014[94]) find that bargaining coverage, especially if larger than union coverage, can lead to rigid adjustments in wages and may be detrimental to employment. Several studies have also used the difference between bargaining coverage and trade union density, the so-called "excess bargaining coverage", to study the effect of administrative extensions, while in fact this measure mixes *erga omnes* clauses and administrative extensions. For example, Murtin, de Serres and Hijzen (2014[87]) study the interaction of extensions and the tax wedge and find a negative effect of the tax wedge on unemployment in countries with higher "excess coverage". Gal and Theising (2015[89]) find a negative effect of "excess coverage" on employment, but the effect appears to be driven by Germany, New Zealand and Spain. Égert and Gal (2017[91]) also find that higher "excess coverage" is associated with lower employment rates.

[8] Corporatism is a "system of social organisation that has at its base the grouping of men according to their community of their natural interests and social functions, and as true and proper organs of the state they direct and co-ordinate labour and capital in matters of common interest" (Cameron, 1984[7]).

[9] In the original *Jobs Strategy*, centralised or co-ordinated bargaining arrangements were viewed more positively than sectoral bargaining but not explicitly supported. While countries with such systems typically managed to sustain relatively high employment levels, the empirical evidence based on country panels was judged to be weak. Moreover, strong employment performance in those countries reflected, to an important extent, developments in the public rather than the private sector. More fundamentally, the ability to foster fully centralised bargaining systems or systems that are effectively co-ordinated so as to promote resilience and contain wage spirals was put in doubt.

[10] The *Reassessed Jobs Strategy* also acknowledged that collective bargaining arrangements are deeply embedded in countries' social fabric and this was seen as the main reason why so little progress was made since the original *Jobs Study* of 1994.

[11] However, it is not clear whether the result by Boeri (2014[20]) is driven by the "two-tier" structure of the system or the lack of wage co-ordination in those countries that have a two-tier structure.

[12] Classifying countries in these categories of collective bargaining systems necessarily comes with some simplification. The detailed discussion in Chapter 2 should thus be kept in mind when comparing and assessing the functioning of the different bargaining systems across countries.

[13] In Chapter 2 Spain and Switzerland were mentioned in an intermediate group between the predominantly centralised and organised decentralised ones. The number of observations between 1980 and 2015 for such an intermediate group is, however, too small to be used for econometric purposes.

[14] The ICTWSS database is available at http://www.uva-aias.net/en/ictwss.

[15] To avoid a reduction in the sample size, missing values among control variables have been redefined at zero and dummies for missing observations have been included among the controls.

[16] Separately controlling for the degrees of centralisation and co-ordination delivers qualitatively similar results (see Annex 3.B): Centralisation is associated with lower employment rates (although the relationship is not monotonic as it becomes weaker for extreme forms of centralisation) and not related with the unemployment rate. Wage co-ordination is linked with higher employment rates and lower unemployment rates.

[17] While decreasing wage inequality among full-time workers, collective bargaining may increase earnings inequality between full-time employees and other workers, in the spirit of an insider-outsider model (but see endnote 2 above on the limited empirical backing of such model). Since the data in this analysis are based on hourly wages of full-time workers, they cannot be used to study effects on overall earnings inequality among all workers.

[18] For European countries, the bargaining variable that is reported in the data is a characteristic that is associated with the firm, not the individual. Hence, all workers in one firm are classified in the same way, whether or not this type of bargaining applies to every single worker in the firm. The data only indicate the agreement that is the most relevant, even if both a sectoral and a firm-level agreement are in place. For a few other countries, even if the variable is not missing, there is no within-country variation in the data, and the data are therefore not used.

[19] Compared with an OLS regression that includes one or two collective bargaining dummies, the Juhn-Murphy-Pierce (JMP) decomposition has the advantage that it nests all the different parts of the analysis in this section. The alternative to the JMP decomposition would be to employ reweighting methods, such as those popularised by DiNardo, Fortin and Lemieux (1996[92]). These reweighting methods are, however, especially sensitive to the problem of lack of common support, i.e. characteristics being common in one collective bargaining scheme, but not in another. For this reason, they cannot be used in this context.

[20] Misalignment of wages and productivity may come at an efficiency cost, in particular weaker productivity growth. The possible link between efficiency, wage-productivity alignment and wage dispersion gives collective bargaining, potentially, a central role in the productivity-inequality nexus – see OECD (2016[98]) and OECD (2016[100]).

[21] In a frictionless economy, wages in one sector should equal marginal productivity in this sector. The analysis uses average rather than marginal productivity, as marginal productivity is more difficult to measure. With a standard Cobb-Douglas production function, marginal productivity equals average productivity. In practice, however, the parameters of the production function may not be constant across sectors, competition may be imperfect and the distribution of sectoral wages may not be aligned on that of average productivity also for reasons that have nothing to do with collective bargaining (e.g. because of differences in capital intensity across sectors and over time; see, for example, Chapter 2).

[22] When annual growth rates of wages and productivity are analysed instead of their levels, the results are similar. With growth rates capturing more short-run adjustments, this suggests that collective bargaining may influence the way wages are set both in the short and longer term.

[23] The euro area aggregate statistics are based on non-harmonised data for ten countries which include all larger countries and cover more than 95% of the euro area (Schulten, 2013[45]). The ECB labels as "experimental" those data for which compromises in terms of harmonisation, coverage and methodological soundness of the source data have to be made.

[24] For a methodological note on CAWIE data, see Van Gyes and Vandekerckhove (2015[83]); for policy analyses, see Schulten (2013[45]) and Delahaie, Vandekerckhove and Vincent (2015[93]). Compared to the discussion in this chapter, Schulten (2013[45]) also examines sectoral developments of negotiated wages but does not find clear patterns across European countries.

[25] See Chapter 2 for a detailed discussion of the pros and cons of the different options and OECD (2017[102]) for an application in the context of France, where extensions up to the recent reform used to be semi-automatic.

[26] In systems where bargaining predominantly happens at the firm level, workplace representation and the coverage of collective agreements go hand-in-hand. At the same time, Chapter 2 shows that in these countries, the proportion of workers covered by any form of employee representation in the workplace is lower (while it tends to be high in multi-level systems characterised by complementarity between sectoral and firm-level agreements). Therefore, the shift towards firm-level bargaining could result in lower coverage.

[27] A special type of opening clauses concerns the short-time working scheme *Kurzarbeit* which allows companies in times of economic crisis to put part of their workforce temporarily on unemployment benefits. These measures are meant to preserve valuable personnel for a company in crisis. It differs from the "normal" opening clauses in that generally the government has a key role in these measures, since it regulates the use of unemployment benefits.

[28] In a few other countries (including France, Italy and Portugal), company-level bargaining plays a sometimes significant role, but either due to a strict application of the favourability principle or the practice of social partners to "lock" the content of sectoral agreements, firm-level agreements can *de facto* only improve the standards set at national or sectoral level. In principle, these two-tier structures could still allow balancing high coverage, macroeconomic stability and some margins of adjustment at the firm level. Indeed, the main advantage of such a system is that it does not rely on local representation in small or less productive firms. However, Boeri (2014[20]) argues that these regimes "combine the rigidity in pay of centralised systems with a lack of consideration of macroeconomic constraints" (Boeri, 2014, p. 17[20]). This may be because those who can afford more favourable agreements at the company level impose generous working conditions on others through their involvement in the negotiation of sectoral agreements. But it could also reflect the absence in those countries of a proper system of wage co-ordination which has been proven to be key for macroeconomic flexibility (OECD, 2017[2]).

[29] For example, during the bargaining round in 2016 the "cost-mark" was set at about 2.5% but assistant nurses received an agreed wage raise of about 3.5%. All social partners agreed on this exception due to many years of comparatively small wage increases for assistant nurses despite labour shortages in their profession.

[30] The IMF (2017[99]) in its Article IV review for Sweden called on social partners to find ways to make wages more responsive to Swedish conditions at both the macroeconomic and sectoral level.

[31] 5 = maximum or minimum wage rates/increases based on:

a) centralised bargaining by peak association(s), with or without government involvement, and/or government imposition of wage schedule/freeze, with peace obligation

b) informal centralisation of industry-level bargaining by a powerful and monopolistic union confederation

c) extensive, regularised pattern setting and highly synchronised bargaining coupled with co-ordination of bargaining by influential large firms

4 = wage norms or guidelines (recommendations) based on:

a) centralised bargaining by peak associations with or without government involvement

b) informal centralisation of industry-level bargaining by a powerful and monopolistic union confederation

c) extensive, regularised pattern setting coupled with high degree of union concentration

4 A Hard Day's Night: Collective bargaining, workers' voice and job quality

Sandrine Cazes, Andrea Garnero, Sébastien Martin and Chloé Touzet

This chapter analyses the role that collective bargaining and workers' voice play in promoting job quality, with a particular focus on its non-monetary dimension, i.e. the quality of the working environment. The chapter first builds a simplified framework to analyse the theoretical links between different forms of bargaining systems and workers' voice and the quality of the working environment. In the second part, it provides an overview of the quality of the working environment across different bargaining regimes and types of workers' voice using a mix of country-level and worker-level data. Finally, the chapter reviews what unions, workers' voice and employers can do to improve the quality of the working environment in five key dimensions: occupational safety and health, working time, training and re-skilling policies, management practices, and the prevention of workplace intimidation and discrimination.

In Brief

Key findings

Having fair and good conditions of employment is an important priority for workers and a primary goal for unions. It also matters for employers, since low job quality is associated with higher absenteeism, more physical and mental health problems, increased labour turnover and, in the end, lower productivity and firm performance. Improving job quality can thus be both welfare enhancing and economically efficient.

National laws often set minimum working conditions provisions such as e.g. minimum safety requirements, or maximum hours of work. Nonetheless, collective bargaining at all levels, and workers voice arrangements at firm level (both representative institutions such as union delegation or works councils, and direct forms of dialogue such as regular participatory meetings) can help governments, employers and unions to find mutually beneficial solutions.

The role of social partners in setting wages has been studied extensively (see Chapter 3), but their impact on non-monetary aspects of job quality such as the quality of the working environment has been less explored. Beyond the minimum standards set in the law, social partners can play a role in shaping working conditions through several channels. First, by negotiating and ensuring the enforcement of sectoral or firm-level collective agreements (which can derogate from the law, but also extend provisions in domains such as training or the adoption of new management practices and technologies). Second, by organising the expression of workers' voice through representative institutions in the workplace (such as union delegates or works councils). These can improve working conditions by bringing workers' concerns to the attention of management and leading to the development of collaborative solutions. Third, by improving standards set by the law through advocacy, lobbying and, in some cases, negotiations with governments.

Assessing the influence of social partners on job quality is empirically complicated. First, when designing a measure of quality of the working environment, data availability is an important constraint. Moreover, studying the link between national collective bargaining systems and measures of job quality would require long time series that are not available. Finally, when it comes to the impact of workers' voice arrangements on job quality at firm level, the assessment is complicated by reverse causality issues (e.g. union representation might affect working conditions, but poor working conditions might also motivate workers to join unions; unions themselves might primarily focus on firms where working conditions are most in need of improvement). Bearing these caveats in mind, this chapter shows that:

- At country level, measures of the quality of the working environment developed in the *OECD Job Quality Framework* are higher on average in countries with well-organised social partners and a large coverage of collective agreements – where the number of job resources available to workers (e.g. autonomy, training and flexibility of working time), in particular, is higher.
- At firm level, voice can be mediated by representative institutions, with prerogatives varying from information to consultation and co-determination, and/or it can materialise through the organisation of regular direct exchanges between workers and managers. Direct and representative forms of voice, however, are not substitutes: the protections against retaliation and firing, and the information and consultation rights attached to the status of workers' representatives are absent in the case of direct voice.

- Across European countries, the existence of direct dialogue and of mixed forms of voice (where representative institutions co-exist with direct forms of voice) are associated with a higher quality of the working environment (compared to the absence of voice arrangements). By contrast, workers with access to representative voice arrangements, but no direct voice, are on average more strained (and, in particular, they are in more demanding jobs) than workers in firms with no voice arrangements. Similar correlations are found when focusing on safety and health, working time, management practices and intimidation and discrimination. These correlations do not allow the existence or direction of any causal link to be established. The positive association between mixed voice and quality of the working environment could reflect the fact that employers and managers who create channels of direct dialogue with their employees are also more likely to engage in improving the quality of the working environment. By contrast, the presence of solely representative arrangements for voice could be characteristic of poor social dialogue contexts, where employers are unwilling to engage in direct exchanges with workers, but are either mandated by law to have representative institutions, or facing strained workers seeking representation to express their discontents, while benefiting from the legal protections attached to representative voice.

Recognising empirical limitations in dealing with these questions quantitatively, this chapter presents detailed qualitative data on the influence of collective bargaining systems and different forms of workers' voice arrangements on five key pillars of the quality of the working environment − occupational safety and health; working time; training and re-skilling policies; management practices; and the prevention of workplace intimidation and discrimination. The main results are as follows:

- *Occupational safety and health (OSH):* In all OECD countries, the law often contains very detailed minimum provisions and collective agreements cannot deviate from the terms set in the legislation. However, collective agreements and workers' voice arrangements, particularly dedicated health and safety representatives, are helpful in: i) increasing the amount of information available to workers; ii) acting as a communications channel for emerging problems and enabling solutions to be devised in partnership with management on the ground; iii) further improving standards; and iv) guaranteeing enforcement − which is often challenging in small firms and in sectors with a high share of non-standard forms of employment.
- *Working time*: While international and national regulations set the basic standards, collective agreements on working time typically contain margins of adjustment so that firms can adapt specific conditions to their situations, even in countries where wage setting remains more centralised. For instance, social partners often shape normal working hours at sector level or bargain over the flexibility of working time arrangements. Interestingly, recent agreements in some OECD countries show that the issue of work-life balance is becoming more important as a topic of negotiations and campaigning.
- *Training and re-skilling policies:* Unions and employers' organisations are currently involved in the management of training funds, as well as skills assessments and the anticipation of skills needs, in a majority of OECD countries. The presence of any type of voice arrangements is positively associated with workers' access to training. Access to life-long training for workers is an increasingly important issue in collective bargaining agreements, as some landmark agreements in Denmark or Italy show. Yet, on average in OECD countries, only about 15% of firms are covered by an agreement including provisions on training.
- *Management practices:* Work organisation and management practices are primarily the responsibility of management. However, unions and workplace representatives strive to be involved in their definition to ensure that workers also have a say in them. In line with the general findings mentioned above on the role of workers' voice, direct and mixed forms of workers' voice

are consistently associated with higher work autonomy and a higher incidence of practices such as teamwork, task rotation and self-assessment of own-work.

- *Intimidation and discrimination prevention:* While workplace discrimination has not historically been at the forefront of unions' agendas, this has changed in recent decades. Unions have carried out internal re-organisations to take account of equality concerns, negotiated specific clauses to prevent discrimination and better represent a diverse workforce in collective agreements, and developed initiatives to prevent discrimination at workplace level. The full extent of harassment at work has recently gained more prominence. Data for European countries show that direct and mixed forms of workers' voice arrangements are associated with a lower incidence of various forms of intimidation and discrimination.

Introduction

One of the key objectives of collective bargaining is to ensure fair and good conditions of employment. The link between collective bargaining and wage determination or inequality has been largely investigated in the economic literature (see Chapter 3 for a detailed review). By contrast, more attention may be needed on the association between workers' voice arrangements and collective bargaining on non-monetary aspects of job quality. To fully grasp social partners' contributions to job quality, it is essential to consider the diversity of topics covered by collective agreements, and also addressed through workplace cooperation and consultation. Workers' voice arrangements and collective bargaining are not only institutional means of articulating and pressing demands for higher wages. They also provide a platform for collective communication between governments, workers and employers, and cover other issues (Freeman and Medoff, 1984[1]).

For example, social partners can help to improve workers' labour market security by providing support, guidance and access to up- and re-skilling for workers who lose their jobs in the event of restructuring and mass-layoffs (see Chapter 5). In some cases, they are also involved in the design and management of unemployment benefit systems. Social partners can also shape a number of other aspects of non-monetary working conditions in sectoral and firm-level agreements: they often participate in the design and implementation of occupational health programmes; they can help improve work organisation. Moreover, at firm level, workers' voice can help address conflicts and foster exchanges between workers and their employers. In other words, collective bargaining and workers' voice institutions can significantly affect both the monetary and non-monetary dimensions of jobs.

While the non-monetary aspects of job quality are clearly a primary concern for workers and unions, they also matter for employers (Saint-Martin, Inanc and Prinz, 2018[2]; Eurofound, 2017[3]). A poor quality of the working environment is, for instance, associated with higher absenteeism, more health problems while at work, health-related early retirements and increased labour turnover, all aspects likely to have a direct effect on workers' productivity and firms' performance. Thus, ensuring a good working environment is both welfare enhancing and economically efficient and an area in which employers and unions can find mutually beneficial solutions.

Based on the premise that job quality is an inherently multi-dimensional concept,[1] which is critical for workers, firms and society, the OECD has developed a framework for measuring the quality of employment. This framework, which has been adopted by the G20, identifies three key complementary dimensions of job quality: the quality of earnings, labour market security and the quality of the working environment, which captures non-monetary aspects of job quality (OECD, 2014[4]). Building on this framework, this chapter looks at the relationship between collective bargaining, workers' voice and job quality. It starts by providing a simplified framework of the theoretical links between collective bargaining

institutions, types of workers' voice, and the quality of jobs (Section 4.1). It then provides a descriptive overview of how the quality of the working environment (the third dimension of job quality in the OECD framework) compares across different collective bargaining regimes and forms of workers' voice (Section 4.2). Finally, Section 4.3 discusses how social partners might be able to improve the quality of the working environment through their ability to negotiate and influence regulations in five domains: occupational safety and health; working time; training and re-skilling policies; management practices; and the prevention of workplace intimidation and discrimination.

On average, some collective bargaining regimes seem to perform better than others in terms of the quality of the working environment, although no statistically significant links are evident between the two. When comparing measures of the quality of the working environment across collective bargaining systems, however, it is not possible to pinpoint the specific levers available to social partners to affect these measures. Beyond provisions negotiated in collective agreements, workers' voice arrangements in the workplace may also shape job quality outcomes, notably those linked to the working environment.

In order to gain a more detailed understanding of how social partners affect job quality and the mechanisms at play, the chapter looks in more depth at the main components of the quality of the working environment. It explores how the five aforementioned dimensions of the quality of the working environment are influenced through both the bargaining and voice functions. Therefore, the chapter provides a picture of the actual extent of bargaining and workers' voice in these fields, sheds light on how collective bargaining and workers' voice can deliver good outcomes for job quality, and identifies good practices at country and sector level.

4.1. Collective bargaining, workers' voice and job quality: A framework

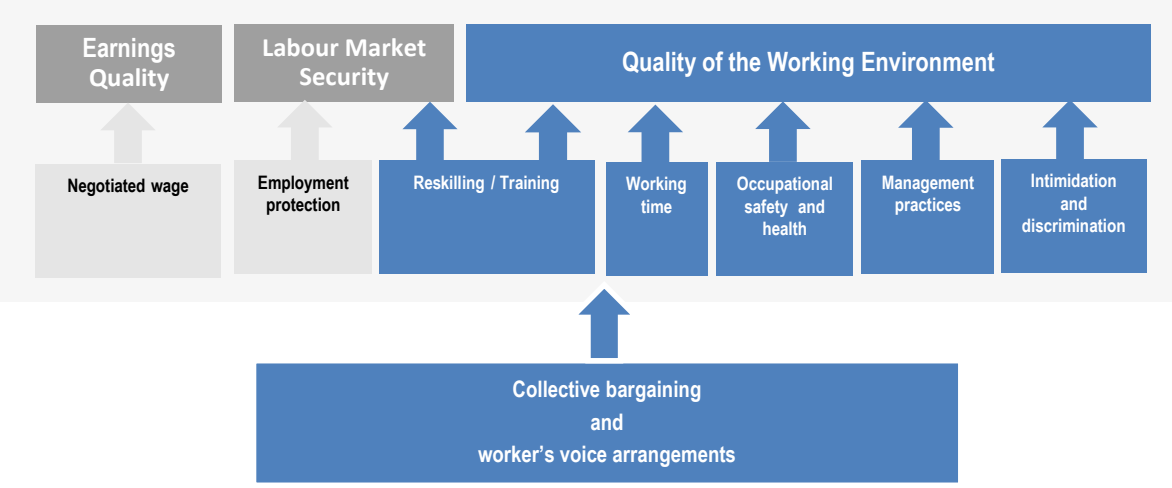
The jobs people hold are one of the most powerful determinants of well-being, as most people spend a substantial part of their time at work and work for a significant part of their life. Building on international measurement efforts to provide a benchmark for policymakers (ILO, 2012[5]; Eurofound, 2012[6]; UNECE, 2015[7]), the OECD has developed an operational framework for measuring and assessing job quality through three objective and measurable dimensions of job quality. These are both important for worker well-being and relevant for policy. Together, these dimensions provide a comprehensive assessment of job quality.

The first dimension, *earnings quality*, refers to the extent to which the earnings received by workers in their jobs contribute to their well-being. While the level of earnings provides a key benchmark for assessing their contribution to material living standards, the distribution of earnings across the workforce also matters for well-being. The OECD measure of earnings quality therefore accounts for both the level of earnings and their distribution across the workforce. The second dimension, labour market security, captures those aspects of economic security that are related to the probability of job loss and its economic cost for workers. The measure of labour market security is thus a function of the risk of unemployment (which encompasses both the risk of becoming unemployed and the expected duration of unemployment) and of the extent of compensation in case of job loss (which takes into account both the coverage of benefits and their generosity). The third dimension, the quality of the working environment, captures non-monetary aspects of job quality related to the nature and intensity of the work, access to training, working-time arrangements, management practices, etc.

How can collective bargaining shape job quality outcomes? A number of institutional theories have linked job quality outcomes to different institutional models.[2] Figure 4.1 sketches the main transmission channels through which collective bargaining regulation and workers' voice can influence the three key dimensions of the *OECD Job Quality Framework*. Collective bargaining does not affect all of these dimensions equally. For instance, employment protection is less directly affected by collective bargaining, though union advocacy related to legislative initiatives will have some impact. By contrast, collective bargaining has a

direct impact on earnings (see Section 4.1.1) and working conditions. The dark blue part of the figure outlines in particular how social partners could improve job quality through their ability to intervene in five areas that are constitutive of the quality of the working environment (and for which some data can be mobilised). These are occupational safety and health, working time, training, management practices, and the prevention of workplace intimidation and discrimination (see Section 4.2.2 for a more detailed discussion about the role of these domains for the quality of the working environment).

Figure 4.1. Collective bargaining and job quality



4.1.1. Collective bargaining and earnings quality

Chapter 3 of this publication provides detailed and up-to-date results on the link between collective bargaining and wage levels and dispersion, the two components of earnings quality. The main findings are summarised below.

Because unions have long been considered primarily as "wage setting institutions" in economic models, the link between collective bargaining and wage outcomes has been widely explored. Earnings quality accounts for both average earnings and their distribution. Collective bargaining, through fixing detailed pay scales for a large share of workers, has a direct effect on these two components.

From a theoretical point of view, unions can affect wage levels and dispersion in several ways -see Bryson (2014[8]) for a detailed discussion of potential mechanisms. Unions draw their bargaining power from their representativeness and the legal right to strike: the threat to stop work can be used to negotiate higher wages or to resist wage cuts. Unions can also have an effect on wages by providing a "voice" to workers and a counterpart to employers to resolve disputes, reduce "exit" (i.e. voluntary quit rates) and thus provide an incentive for more investments in the human and physical capital of the firm. Even in the absence of a union, the threat of unionisation may lead employers to raise wages to reduce workers' incentive to organise. Moreover, unions and collective bargaining also have an effect on wage distribution. By setting wages and working conditions for many workers, bargaining at the firm level covers individuals who may not have the power to negotiate individually and, therefore, compresses pay differences within firms. When undertaken at sectoral level, collective bargaining, by centralising or co-ordinating negotiations across a large number or firms and/or sectors, reduces pay differences among a larger pool of workers – and hence further reduces overall wage inequality.

The empirical evidence on the role of unions and collective bargaining on wages and wage distribution is largely dominated by studies of English-speaking countries where there is no or little sectoral bargaining, and where union organisation at the firm or workplace level is the only way to negotiate wages collectively.

A review of the literature for the United States and the United Kingdom points to a union membership wage premium of between 10% and 15% (Bryson, 2014[8]). In Canada, the union wage premium has been found to be around 12.5% in wages and 15% in benefits when compared against non-union members (Benjamin et al., 2012[9]) – and is even larger for women, Indigenous persons, non-standard workers, young workers, and new immigrants (Gomez and Lamb, 2016[10]). Union representation has also been found to significantly reduce wage dispersion – see, among many, Blanchflower and Freeman (1993[11]), Blau et al. (1999[12]), Card, Lemieux and Riddell (2004[13]) and DiNardo and Lee (2004[14]).

The evidence in countries where bargaining happens at other levels is more limited. However, collective agreements at the firm level have also been found to have a clear positive effect on wages in the context of multi-level bargaining systems. This is not surprising, as firm-level agreements either complement existing sectoral agreements – and hence can often only raise wages – or provide the only cover for workers who would otherwise not be covered by any agreement. By contrast, on average across OECD countries, workers covered by a sectoral agreement do not necessarily enjoy a wage premium (see Chapter 3). These results are in line with a large body of the literature which finds that sectoral bargaining is not linked with higher wages on average – see Dell'Aringa and Lucifora (1994[15]), Hartog, Leuven and Teulings (2002[16]), Rycx (2003[17]), Cardoso and Portugal (2005[18]) and Eurofound (2015[19])– and may reflect the wage moderation role played by wage co-ordination at sectoral level. They are also in line with other findings in Chapter 3, namely that wage dispersion is greater in systems with no collective bargaining or where firms set wages independently, and smallest among workers who are covered by sectoral bargaining.

4.1.2. Collective bargaining and labour market security

Social partners also affect the degree of labour market security. In the *OECD Job Quality framework*, labour market security is defined as a function of the risk of becoming unemployed coupled with the financial risk associated with staying unemployed. It is therefore a function of the financial compensation in case of unemployment. Social partners can affect labour market security through negotiating wages and sometimes hiring and firing rules, as well as through their role in managing unemployment benefits in some contexts[3]. In addition, social partners aim to increase labour market security by limiting the use of involuntary non-standard forms of employment.[4]

In the literature, the role of unions and collective bargaining for labour market security is a more controversial subject than their role for earnings quality. Economic theory predicts that unions risk generating unemployment if they bargain exclusively over wages (Leontief, 1946[20]), set wages above the market equilibrium, or neglect the interest of outsiders (e.g. the unemployed, low-skilled, youth, and those in non-standard employment) – for instance by accepting the development of temporary and part-time employment as a buffer for their members (Saint-Paul, 1996[21]; Lindbeck and Snower, 1986[22]; Bertola, 1999[23]).

However, if both wages and employment are covered in the negotiations – in what has been termed "efficient bargaining" (McDonald and Solow, 1981[24]), employment is not reduced. If bargaining also includes the level of unemployment insurance or severance payment, bargaining is described as strongly efficient and employment reaches its optimal level (Cahuc, Carcillo and Zylberberg, 2014[25]).

In addition, when product market competition is imperfect (i.e. when firms have some degree of monopoly or oligopoly power), higher wages may not induce greater unemployment but rather a rebalancing as workers exert bargaining power to increase the labour share. In cases where employers have the power to unilaterally set wages below the competitive wage, maximising profits at a lower level of employment than in the purely competitive framework, stronger bargaining power and higher wage floors can increase employment. Indeed, with higher wage floors profits will be maximised at a higher level of employment (Cahuc, Carcillo and Zylberberg, 2014[25]).

Overall, the actual effect of collective bargaining on employment is likely to depend on the behaviour of actors and the structure of the market. As mentioned in previous chapters, insider-outsider theories suggesting that

unions tend to neglect the interest of outsiders do not receive much support in the findings of other chapters in this publication or in recent empirical evidence (Gramm and Schnell, 2001[26]; Autor, 2003[27])- see also OECD (2018[28]).

For OECD countries, Freeman (1988[29]) finds no effect of unionisation on unemployment, while Nickell (1997[30]) and Nickell and Layard (1999[31]) find a positive correlation. Scarpetta (1996[32]) suggests that a high unionisation rate tends to reinforce the persistence of unemployment. However, when looking beyond union membership and analysing the role of bargaining systems as such, the previous chapter, as well as other research (Aidt and Tzannatos, 2008[33]; Elmeskov, Martin and Scarpetta, 1998[34]; Bassanini and Duval, 2006[35]) has shown that sectoral bargaining systems where wage co-ordination plays a significant role are associated with lower unemployment relative to fully decentralised systems. Co-ordination in wage bargaining helps to account for the macroeconomic effects of wage agreements by ensuring that these agreements do not undermine external competitiveness and are set in line with the business-cycle situation, thus strengthening labour market security (OECD, 2017[36]). Such systems, therefore, allow the internalisation of macroeconomic constraints better than fully decentralised ones.

The degree of labour market security is not only determined by the risk of unemployment but also by the existence of an unemployment protection scheme to mitigate the economic cost associated with job loss. Historically, unions and other forms of workers' organisations developed the first forms of mutual insurance and increasingly mobilised for the expansion of social rights (Boeri, Brugiavini and Calmfors, 2001[37]). In most OECD countries, many of the insurance functions that unions provided are now provided by the State. However, in Denmark, Finland, Iceland, Sweden and partly Belgium, social partners still play a significant role in the administration of unemployment insurance (so-called "Ghent systems"). While increasingly challenged by the emergence of private insurance funds that do not require union membership, union-affiliated funds still play a major role in strengthening labour market security in the countries where they are present. Moreover, in non-Ghent system countries, collective agreements sometimes include specific provisions on social security and employer contributions to pension, disability and unemployment funds that contribute to improve labour market security beyond the minimum levels established by the law. In Canada, for instance, a tripartite commission (the Canada Employment Insurance Commission) administers certain aspects of the employment insurance scheme such as premiums.

Finally, in addition to *ex post* support in case of job loss, trade unions and employer organisations also engage in *ex ante* initiatives to re-skill and re-train workers, facilitate transitions in the labour market, and reduce the risk of long unemployment spells.

4.2. Collective bargaining, workers' voice and the quality of the working environment

4.2.1. An assessment usually based on job satisfaction and plagued with issues of reverse causality

The literature on the relationship between collective bargaining and job quality, and notably its non-monetary dimensions, has developed along two main lines. First, a few studies have looked at the effect of the presence of trade unions in the workplace on specific aspects of the quality of the working environment, such as working time arrangements, occupational safety and health measures, or training. Second, other – more numerous – studies have focused on the impact of trade unions and collective bargaining on subjective well-being outcomes, such as job satisfaction.

While unions operate to improve working conditions, the theoretical predictions of the link between trade unions and job satisfaction are not clear-cut. On the one hand, unionised workers should feel more protected, with more control over their working conditions and a stronger feeling of organisational commitment, and hence overall they should be more satisfied. On the other hand, unsatisfied workers or those in jobs of lower quality

are also more likely to decide to join a union to express and address their dissatisfaction. In the absence of a union and lacking a possibility to voice their concerns, dissatisfied workers might be more likely to quit - as predicted by the exit-voice model (Hirschman, 1963[38]). By contrast, dissatisfied workers are more likely to stay in firms where unions are present. In addition, union members may be comparatively less happy at work than non-members because they hold employers to higher standards of behaviour and obligations (Ross, 1953[39]; Bryson, Forth and George, 2012[40]).

Most empirical papers exploring the relationship between unions and workers' well-being actually find that unionised workers are less satisfied with their jobs than non-unionised workers – see review by Hammer and Avgar (2005[41]) and meta-analysis by Laroche (2016[42]). However, most of these studies suffer from problems of reverse causality. The negative correlation observed in many studies is probably due to selections effects, whereby dissatisfied workers self-select into unions – rather than to a *negative effect* of unions per se on job satisfaction. Looking at the United Kingdom and the United States, Bryson and Freeman find that poor job quality and bad management indeed increase desire for union representation among surveyed individuals (Bryson and Freeman, 2013[43]). Another issue comes from the fact that unionisation, through offering employees an opportunity to address poor job quality via bargaining and voice, prevents the exit of dissatisfied workers (Bryson and Green, 2015[44]). Finally, reverse causality issues may also be due to a reporting effect, facilitated by the existence of a voice channel in unionised workplaces, which is likely to increase the reporting of dissatisfaction and incidents that would otherwise go unreported.

A closer look at the literature (Laroche, 2016[42]) reveals that only 14 out of 59 surveyed studies properly deal with these issues. Among the 14 studies that do attempt to address reverse causality and selection, only eight use panel data to control for unobserved, time-invariant confounding factors and to determine the direction of the causal relationship. When focusing only on these studies, the negative effect of union membership on job satisfaction disappears – see e.g. Bender and Sloane (1998[45]), Bryson et al. (2004[46]), Bryson and White (2016[47]).

Beyond the difficulties of properly accounting for selection issues and confounding factors, using workers' satisfaction with their job creates other limitations. The major drawback of using job satisfaction as an indicator of the quality of the working environment is that it captures many other dimensions of the job (such as earnings) that are not related to the working environment. Furthermore, there are often discrepancies between objective observable characteristics of a job and reported job satisfaction due to individual expectations and comparison with reference points: individuals may not only refer to previous jobs, to reference groups or to other jobs available, but also adapt their expectations to poor quality jobs, thereby reducing gaps between job quality and job satisfaction. Overall, these drawbacks imply that job satisfaction is not a good indicator to compare the quality of the working environment across individuals, countries, or over time (OECD, 2017[48]).

4.2.2. Towards an objective measure of the quality of the working environment

As outlined above, several important aspects of non-monetary job quality – such as workers' autonomy in their jobs, or their learning opportunities, are essential to assess accurately the quality of employment. Good relationships with colleagues matter as well, as do practical aspects such as working time arrangements and flexibility. When jobs and workplaces cumulate these factors, people are more able to manage work pressure and difficult tasks; they also tend to be healthier, more satisfied and committed, and possibly more productive (Cazes, Hijzen and Saint-Martin, 2015[49]).

The OECD measures the quality of the working environment in a manner that is inspired by models developed in the occupational health literature, and notably job strain models. In those models, job strain results from an imbalance between high demands (work-related stress factors) and the insufficient resources workers have at their disposal. This imbalance has potentially detrimental effects on health. The *OECD Job Quality Framework* builds on the "Job Demands-Job Resources Model" developed by Bakker and Demerouti (2007[50]); the latter is applicable to a wide range of occupations, which is important for cross-country comparisons given countries differing occupational compositions (Box 4.1).

Box 4.1. Quality of the working environment and workers' well-being: The main models

Policy interventions aimed at fostering non-monetary aspects of job quality have primarily concentrated on the quality of the *physical* working environment, notably to prevent and curb accidents at work. Yet emerging evidence on the existence of other types of risks (psychosocial ones), with equally detrimental consequences on workers' health and well-being, has broadened the scope of research to the *overall* quality of the working environment and its determinants.

Three theoretical models have been particularly influential in accounting for the rise of the "risks for mental, physical and social health, created by employment conditions and the organisational and relational factors that can interact with mental functioning" (Gollac and Bodier, 2011[51]): the Demand-Control model; the Effort-Reward imbalance model; and the Job demands-Resources model. According to the seminal work by Karasek (1979[52]) who developed the Demand-Control model (DCM), the primary source of job stress is caused by the joint effects of work environment factors –and notably the combination of high job demands (such as work intensity and time pressure) and low control over how individuals meet these demands (workers' latitude in taking decisions).

An alternative model is the Effort-Reward Imbalance model (ERI), which emphasises the importance of ensuring fairness in rewards (rather than job control) in a context of high demands (Siegrist, 1996[53]). In this model, efforts in the workplace are exchanged with socially recognised occupational rewards such as adequate salary, recognition, promotion prospects and job security. One tenet of the model is that the severity of the consequences of an effort-reward imbalance increases with workers' difficulty to change jobs. Given that low-skilled workers have few exit options, in particular in a context of tight labour market, they represent a particularly exposed group to an effort-reward imbalance.

The third main model, the Job Demands-Resources (JD-R) model (Bakker and Demerouti, 2007[50]) builds on a more flexible and comprehensive model, which considers that every occupation may have their specific underlying risk factors. The JD-R model expands the definition of Karasek's (1979[52]) model by considering as demands all those physical, psychological and organisational aspects of the job that require sustained physical and/or psychological effort. Job resources, on the other hand, include those job attributes that may reduce job demands, be instrumental in achieving work goals or stimulate personal accomplishment. Hence, beyond work autonomy or job reward, they also include opportunities to learn, support from colleagues and managers, well-defined work goals and appropriate feedback on the work performed. The central premise of the model is that, irrespective of the occupation, job demands may generate a strain or health impairment process, whereas job resources induce a motivational one.

All three models differ in their scope of explanatory factors, and the extent to which they include personal factors. The DCM model, for instance, focuses exclusively on the nature of the working environment, while the ERI adds a personal component based on expectations, attitudes and perceptions. Moreover, the DCM model, due to the emphasis on job control[5], tends to categorise manual/low skilled jobs as high strain jobs whereas the ERI model tends to classify fixed term jobs, or jobs without a career ladder, as high-strain jobs. Overall, both the DCM and ERI models devote a lot of attention to work overload and control, neglecting other types of drivers potentially crucial for well-being. The JD-R model, on the other hand, seeks to give an explanatory role to a broader range of factors and individual characteristics, and presents clear advantages for cross-country analyses. First, it can be applied to a wide range of occupations, which is important given countries differing occupational compositions. Second, it focuses on aspects of *work*, rather than on dimensions related to workers' personality; as such it is more directly related to job quality. Finally, it considers aspects of jobs such as achieving work goals and stimulating personal development that are likely to matter for workers' well-being. For these reasons, measures of quality of the working environment in the *OECD Job Quality Framework* follow a JD-R model.

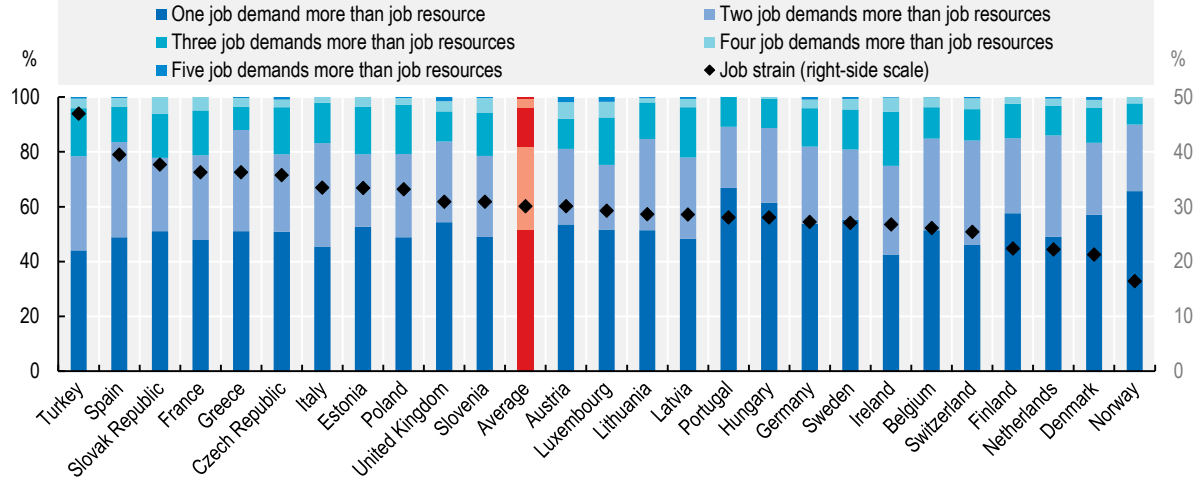
The range of potentially relevant job demands and job resources to be included in a JD-R model is very large. Schaufeli and Taris (2014[54]) list for instance 30 different types of job demands and 31 types of job resources. However, when designing a measure of quality of the working environment, data availability is an important limitation. The imperatives of cross-country and longitudinal comparability are additional constraints. Striking a balance between the comprehensiveness of the measure and its applicability across time and countries , this chapter considers five different job resources (autonomy at work, training, working time flexibility, social support and good management practices) and five job demands (task monotony, hard physical work, work intensity, unsocial work schedule and intimidation and discrimination)[6]. These ten demands and resources are related to five domains that are key pillars of the quality of the working environment, namely occupational safety and health, working time, training and re-skilling policies, management practices, and the prevention of workplace intimidation and discrimination.[7] Annex 4.A provides a summary of the definitions and sources used to build these data.

Various indicators of the quality of the working environment that account for both the cumulative aspects of job demands and the potential compensating effects on an individual's physical and mental well-being can be considered. Figure 4.2 displays the *distribution* of job demands exceeding job resources and therefore generating job strain, as well as the *share* of workers experiencing job strain. On average across OECD countries, 30% of workers experienced job strain in 2015, with a differential of one demand more than resources for about half of them, and at least two demands more than resources for the other half.

The incidence of job strain is lowest in Norway, where about 17% of workers are "strained", by one excess demand compared to resources for over 60% of them. By contrast, the incidence of job strain is highest – close to 50% – in Turkey, where over half of strained workers experience a differential of at least two demands more than resources. Across countries, a positive relationship between the incidence of job strain and its intensity (i.e. the size of the differential between job demands and job resources) can be observed. In other words, countries with a large share of workers in strained jobs tend to display also more severe job strain levels than countries where the majority of workers enjoy good quality working environment.

Figure 4.2. Quality of the working environment in European countries

Distribution of job demands exceeding job resources and incidence of job strain, employees aged 15-64, 2015



Note: Average is the unweighted average of countries shown. Survey weights are used.
Source: OECD estimates based on the 6th European Working Conditions Survey (EWCS).

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4.2.3. Do some collective bargaining systems perform better than others in terms of the quality of the working environment?

Differences in collective bargaining systems can contribute to explaining differences in the quality of the working environment. For instance, a large coverage of collective agreements can diffuse best practices across a large number of companies. Moreover, strong social partners can help ensure a high degree of compliance with provisions spelt out in legislation or collective agreements. Figure 4.3 shows the incidence of job strain as well as the average number of job demands and job resources across collective bargaining regimes using the taxonomy developed in Chapter 3, which identified five categories of collective bargaining systems:

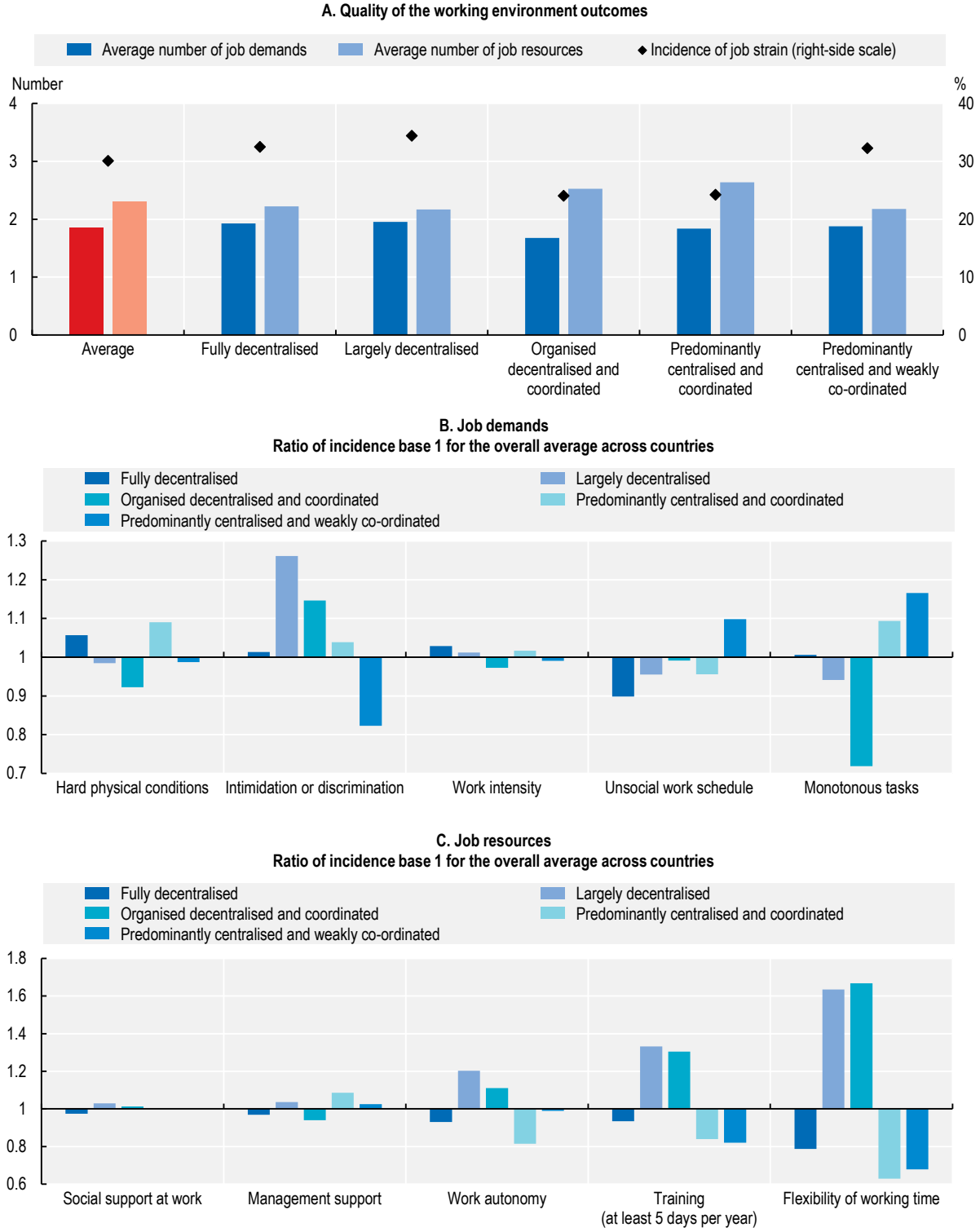
- Predominantly centralised and weakly co-ordinated collective bargaining systems, such as France, Italy or Spain, where sectoral agreements play a strong role, derogations are limited and wage co-ordination is largely absent.
- Predominantly centralised and co-ordinated collective bargaining systems, such as Belgium (and, until 2015, Finland), where sectoral agreements play a strong role but wage co-ordination is strong across sectors.
- Organised decentralised and co-ordinated collective bargaining systems, such as the Nordic countries or Germany, where sectoral agreements leave significant room for lower-level agreements to set the standards.
- Largely decentralised collective bargaining systems, such as Australia, Japan or Greece, where firm-level bargaining is the dominant bargaining form, but sectoral bargaining (or a functional equivalent such as Modern Awards in Australia) or wage co-ordination also play a role.
- Fully decentralised collective bargaining systems, such as Canada, Korea, the United States and most Eastern European countries where bargaining is essentially confined to the firm or establishment level.

The figures in Panel A show that, on average, job strain in 2015 was lower in organised decentralised and co-ordinated systems, as well as in predominantly centralised and co-ordinated ones, and higher in fully decentralised, largely decentralised and predominantly centralised and non-coordinated systems. Organised decentralised and co-ordinated systems, as well as centralised and co-ordinated ones have in common both a strong degree of organisation of social partners and a large coverage of collective agreements. Predominantly centralised and non-coordinated systems are also characterised by relatively high coverage of collective agreements but social partners are in several cases relatively weak. On the other hand, fully and largely decentralised systems are characterised by low coverage and weak social partners. Analysis for previous years show similar patterns (see Annex 4.A).

Unpacking the factors of job strain, Panels B and C show that lower job strain in organised decentralised and co-ordinated systems, as well as in centralised and co-ordinated ones, corresponds in particular to higher job resources (autonomy, training and flexibility of the working time). The pattern in job demands is however less clear, with organised decentralised and co-ordinated systems, as well as centralised and co-ordinated ones showing a lower incidence of monotonous tasks but also a higher degree of reported intimidation or discrimination. This latter descriptive result could be explained by the “reporting effect” discussed above: the strong degree of organisation of social partners that is characteristic of these systems is likely to imply that better systems are in place to record cases of intimidation and discrimination – as reflected in an apparently higher number of cases.

Figure 4.3. Job demands and job resources by collective bargaining systems in Europe

Unweighted averages across countries, employees aged 15-64, 2015



Note: Average is the unweighted average of all European countries shown. Survey weights are used. For further details on definitions and constructions of the indicators, see Annex Table 4.A.1. and for a description of the taxonomy of collective bargaining systems, see Annex 3.A.
Source: OECD calculations based on the 6th European Working Conditions Survey (EWCS), 2015.

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While these figures suggest that there might be some positive patterns linking specific collective bargaining systems and the quality of the working environment, they are only descriptive. They do not lead to clear conclusions on whether any particular collective bargaining system is systematically performing better in terms of the quality of the working environment.

Looking at the link between collective bargaining systems and individual sub-dimensions of the quality of the working environment reveals a similar pattern. For instance, there is no clear "best-performer" among existing types of collective bargaining institutions in terms of occupational safety and health outcomes. Rather, different combinations of collective bargaining and regulations, involving different types of collective bargaining institutions, can lead to the same results in terms of health and safety performance.[8]

4.2.4. The role of workers' voice

Beyond provisions negotiated in collective agreements, the presence of institutional arrangements for workers' voice in the workplace, may also participate in shaping job quality outcomes, notably those linked to the working environment.

Most studies of the effect of worker's voice on various non-monetary job quality outcomes primarily consider *subjective* measures of job quality such as job satisfaction. For instance, Holland et al. (2011[55]) find that direct voice is positively associated with subjective job satisfaction. Voice, in general, when facilitating employee involvement, is found to lead to better outcomes in terms of subjective perception of risk of employment loss, of unfair treatment, or of job-status loss (Felstead, Gallie and Green, 2015[56]). The presence of union onsite representatives is also positively associated with employees' subjective perception of job content, work-life balance and job stress (Hoque et al., 2016[57]).

Theoretically, the link between voice and *objective* measures of the quality of the working environment remains ambivalent. On the one hand, for instance, firm-level organisational changes are more likely to be negotiated with workers where systems of employee representation are in place (Felstead, Gallie and Green, 2015[58]; Wood, 2008[59]). This leads one to expect a positive relation between voice and the quality of the working environment. On the other hand, the desire for voice, and in particular for representative forms of voice, might arise from poor job quality and bad management in the first place (Bryson and Freeman, 2013[43]), leading one to expect a negative relationship.

Only a few studies have attempted to measure the effect of workers' voice in its different forms on *objective* measures of job quality. The absence of voice, for instance, is associated with higher absenteeism and turnover (Gomez, Bryson and Willman, 2010[60]), while representative forms of voice are associated with lower quit rates than direct voice (Brown et al., 2009[61]). Bryson and Green (2015[58]) report evidence that union representatives facilitated innovation through the adoption of productivity-enhancing high involvement management practices encouraging workers' engagement, such as autonomous team working. Other studies highlight a negative association between the presence of workplace union representatives and hours of unpaid overtime, and a positive association with the likelihood of receiving on-the-job training (Bryson and Forth, 2017[62]).

This section considers the links between objective measures of the quality of the working environment discussed in Section 4.2.2 above, and the various forms of workers' voice arrangements identified in Section 2.6 in Chapter 2. As explained in that chapter, workers' voice arrangements across OECD countries vary considerably, both in terms of nature and prerogatives (De Spiegelaere et al., 2019[63]). At the workplace level, voice is often mediated by representative institutions, such as local trade union representatives (either appointed by the trade union or elected by the employees), works councils (established bodies elected or appointed by all employees in a firm, irrespective of their membership of a trade union), or workers representatives (either union members or independent). Representative voice can also materialise at company level, through employees' and/or trade unions' presence in supervisory and management boards. Importantly, prerogatives attached to representative entities vary from information,

to consultation and co-determination. This variation in strength is likely to affect the effect of representation, including on outcomes related to the quality of the working environment[9] (see Chapter 2 for more details). Beyond representation, voice also materialises at the workplace through the organisation of direct exchanges between workers and managers (e.g. via regular town hall meetings and/or direct consultations).[10] Direct and representative forms of voice should not be considered as substitutes, notably because of the protections against retaliation and firing, and the information and consultation rights that are attached to the status of workers' representative, and absent in the case of direct voice. However, this distinction is useful in capturing the different ways in which communication between workers and managers de facto materialises (or fails to) across OECD countries. In addition, this distinction, which can be captured in the data, at least for European countries, allows going beyond a crude distinction between cases with and without any form of voice when trying to assess the effect of workers' voice on job quality outcomes.

Using available data for European countries, Chapter 2 distinguished between three cases. First, 18% of European workers in 2015 had access to solely direct forms of voice (i.e. they had access to regular participatory meetings between workers and managers, but not to representative institutions). Second, 14% of European workers in 2015 has access to representative voice institutions (this includes cases of union representation as well as non-union representation such as that provided by elected employee delegates or statutory works councils), but did not have access to direct voice in the form of regular formal exchanges between workers and managers. Finally, 37% of European workers had access to both direct and representative forms of voice (i.e. they were in mixed voice arrangements).

For European countries, and based on the European Working Condition Survey data for 2015, Figure 4.4 shows that both direct voice and mixed forms of voice are associated with lower job strain (compared to the absence of voice arrangements). In particular, workers with access to these forms of voice have more job resources on average, compared with workers in firms with no voice arrangements at all. By contrast, workers with access to representative voice arrangements, but no direct voice, are on average more strained (and, in particular, they are in more demanding jobs) than workers in firms with no voice arrangements.

These results suggest that the type of reverse causality discussed in Section 4.2.1 above, whereby strained workers seek representation to express their discontents, might be at play. In particular, workers in more demanding jobs might seek representation to express their concerns while benefiting from the legal protections attached to representative voice.[11] Alternatively, strained workers might be more concentrated in firms where the means to express their discontent exist, compared to firms where exit might be the only option – as explained above, representative forms of voice are associated with lower quit rates than direct voice (Brown et al., 2009[61]). However, this logic does not explain why mixed forms of voice perform better than solely representative voice arrangements in Figure 4.4.

In addition, workers cannot self-select into direct voice arrangements, since the organisation of regular exchanges is not in the hands of workers but largely hinges on employers' willingness. Similarly, workers cannot self-select into representative voice arrangements in countries where workers' representation is mandated by law above particular firm size thresholds (such as Austria, Belgium, France, or the Netherlands).[12] Therefore, *workers'* self-selection is not a plausible explanation in many of the cases recorded in the European Working Conditions Survey data and shown in Figure 4.4.

However, results in Figure 4.4 could be linked to *employers* self-selecting into specific voice arrangements. Indeed, employers willing to improve job quality might be more likely to engage into direct exchanges with workers and organise direct voice systems, potentially on top of legally mandated representative ones. This means that the mere presence of direct voice arrangements potentially signals a cooperative environment for employer-employee relations, which is likely to be conducive to a higher quality of the working environment. By contrast, cases of solely representative voice could be characteristic of poor social dialogue contexts, where employers are mandated by law to have representative institutions, but are unwilling to engage in direct exchanges with workers.[13] Because such contexts are unlikely to be

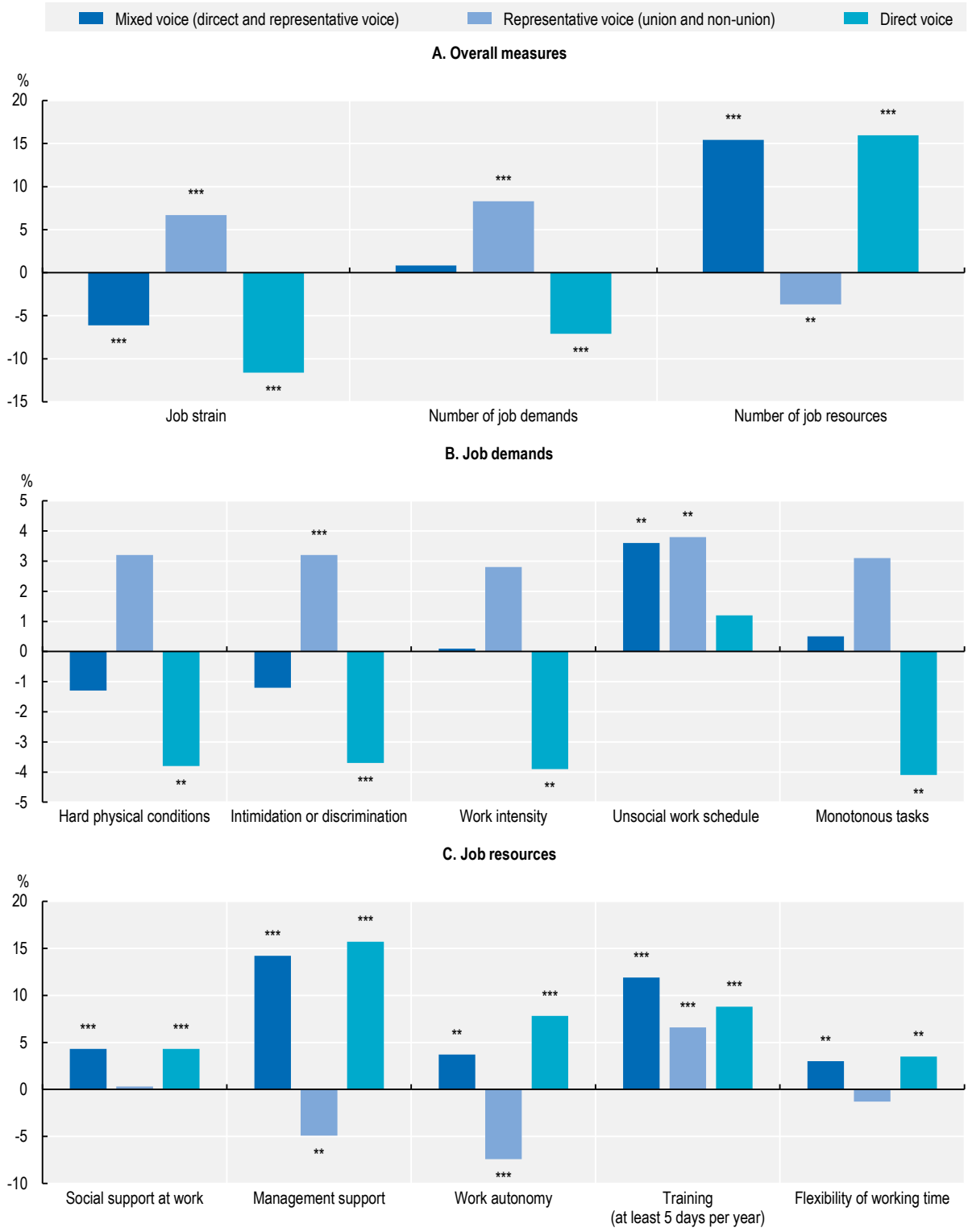
conducive to high quality of the working environment, employer self-selection effect could explain the results observed above.

While this explanation cannot be robustly tested, it is coherent with the results presented in Panels B and C in Figure 4.4, which show associations between forms of representation and the detailed list of job demands and job resources considered in this chapter. Representative-only forms of voice are not only positively associated with the number of job demands, but they are also negatively associated with management support at work and work autonomy – which is expected in contexts of adversarial industrial relations. By contrast, mixed forms of voice are not significantly related to most job demands, but they are positively related to most job resources. Direct-only forms of voice are negatively related to most job demands, and positively related to all job resources.

More generally, this explanation is also coherent with results in the literature showing that in the absence of a proper commitment by both workers' representatives and employers to engage in a meaningful dialogue, mandatory representative voice institutions might not succeed in improving job quality. Research from Canada, for instance, shows that health and safety committees (mandatory under most Canadian labour legislation) operate well in unionised environments but are much less effective in non-union workplaces where there is a lack of both employer buy-in and employee engagement (Bernard, 1995[64]; Milgate, Innes and O'Loughlin, 2002[65]; Yassi et al., 2012[66]).

Figure 4.4. Workers' voice arrangements and the quality of the working environment are statistically correlated, but causality remains unclear

Percentage, employees aged 15-64, 2015



Note: Results are based on probit regressions (OLS regressions for the number of job demands and job resources in Panel A) including additional controls for age, education, gender, type of contract (permanent or temporary contract), occupation, job tenure, firm size, industry, sector (public and private) and country dummies. The chart reports marginal effects, i.e. percentage change in the outcome variable following a discrete change in the relevant explanatory variable from the base level (no workers' voice arrangements). For further details on definitions and constructions of the indicators, see Annex Table 4.A.1. *,**,***: statistically significant at the 10%, 5%, and 1% level, respectively.
Source: OECD estimates based on the 6th European Working Conditions Survey (EWCS), 2015.

StatLink http://dx.doi.org/10.1787/888934027760

4.3. Unpacking the effect of collective bargaining and workers' voice on the main sub-dimensions of the quality of the working environment

The empirical associations between different collective bargaining systems and different types of workers' voice suggest that both can play an important role in ensuring a higher quality of the working environment, but that accounting for the diversity of bargaining configurations and voice arrangements is essential. However, the available data do not allow disentangling the specific channels driving the relationship identified above or the presence of potentially confounding factors such as the high degree of trust and co-operation that characterises countries where wage co-ordination is strong or workplaces where workers' voice is most fruitful.

A qualitative analysis is necessary to understand better what unions, workers' representatives and employers actually do on the ground and what levers can be mobilised to improve the quality of the working environment. The rest of the chapter analyses in details the role of unions, collective agreements and different forms of workers' voice arrangements in five domains that are key pillars of the quality of the working environment. These are occupational safety and health, working time, training and re-skilling policies, management practices, and the prevention of workplace intimidation and discrimination

4.3.1. Occupational safety and health

Occupational safety and health (OSH) is a crucial component of the quality of the working environment. It spans a large range of issues, and notably the prevention of accidents. According to Eurostat data, the standardised incidence[14] of non-fatal workplace accidents was 1 483 per 100 000 workers on average across the European Union in 2016, down from 2138 in 2008 (for fatal accidents the average rate went from 3.78 to 3.03 over that same time period) – signalling the continued importance of the issue of prevention. Yet the latter is only one aspect of occupational safety and health, which also includes other subjects such as workers' mental health.

In most OECD countries, the issue of occupational safety and health is primarily based on legislation, rather than on collective agreements. Many European and Anglo-Saxon countries have had dedicated laws on occupational safety and health since the 1970s. In the European Union, the Framework Directive of 1989[15] has been transposed into national law in a majority of member states (Menéndez et al., 2009[67]). In the United States, the *Occupational Safety and Health Act* of 1970 sets out the reference terms on issues of workplace safety. Since 1981, the ILO Convention 155 also guarantees workers a basic framework of rights and protections on issues of health and safety. This means that the scope for collective bargaining to guarantee workers' occupational safety and health may seem reduced at first. Indeed, in no OECD country can collective agreements derogate from the law in matters of health and safety – they can only add to provisions in the law. Neither can individual firms opt out from collective agreements on this issue.

Yet, for instance, 75% of collective agreements in the retail and commerce sector in the European Union[16] contain at least one clause on health and safety issues. Collective agreements are often ahead of the law on some issues: for instance in Spain, the General Chemical Industry agreement signed in 2004

guaranteed evaluation of workplace psychosocial risk factors while it was not yet required by law (Menéndez et al., 2009[67]). Agreements also frequently contain provisions extending guarantees beyond the legal minimum, for instance through increasing resources available to workplace safety representatives, extending consultation and participation rights, or promoting arrangements to enforce compliance by management.

More generally, Walters and Nichols (2009[68]) find that OSH law has been evolving from prescriptive to process-based regulations over time, encouraging "regulated self-regulation". In the European Union, this movement towards process-regulation, prominently featuring workers' consultation and representation in matters of occupational safety and health, including in countries with a relatively weak tradition of collective bargaining, is an outcome of the harmonising effect of the Framework Directive of 1989. More generally, this tendency was prompted by the progressive recognition of the necessity to engage workers and their representatives in the regulation process.

Indeed, beyond formal bargaining, the importance of workers' voice and in particular of workplace representation in upholding standards of occupational safety and health is well documented. In the domain of safety and health, workplace representation goes beyond the presence of shop floor representatives. In many OECD countries, there are dedicated occupational health and safety representatives at the workplace level. The latter can be appointed by unions, but can also be directly elected by workers, or integrated in existing institutions like work councils.

These safety representatives are engaged in a variety of activities. First they are often in charge of ensuring the implementation of existing protections and of controlling the quality of health and safety conditions (Eurofound, 2011[69]). They provide information about available guarantees and increase workers' awareness of workplace risks. They also facilitate the enforcement of existing regulations through regular workplace-level control. Second, they participate in the development of enhanced protections, for instance in identifying potential issues and bringing these to the attention of managers (Menéndez et al., 2009[67]). Finally, they also participate in elaborating innovations enhancing safety in collaboration with management. At a more macro level, unions are engaged in lobbying for new regulations implementing higher safety standards or answering to emerging risks (Li, Rohlin and Singleton, 2017[70]; Donado, 2015[71]; Eaton and Nocerino, 2000[72]; Morantz, 2009[73]). In the United States, union support of national occupational safety and health legislation contributed to the enactment of the *Occupational Safety and Health Act* of 1970 and the establishment in 1971 of the regulatory body in charge of occupational safety and health, the Occupational Safety and Health Administration (OSHA) (Barth and Mendeloff, 1980[74]).

When it comes to health and safety *outcomes*, results from studies looking at the effect of union workplace representation can be ambiguous at first sight. In Donado and Wälde (2012[75])'s review of the literature, a majority of empirical studies show a positive link between unionisation and the number of reported accidents and injuries. However, this is likely to be an instance of reverse causality, as identified and discussed above. Workers in more dangerous establishments are more likely to unionise to obtain safer working conditions. Moreover, workers in unionised workplaces are more likely to have knowledge of legislative health and safety standards, and therefore they are more likely to recognise a legal violation (Adams, 2008[76]; Weil, 1999[77]). Reporting is also likely to be better where representation guarantees the existence of efficient grievance mechanisms. Employers themselves are more likely to report accidents in unionised workplaces (Li, Rohlin and Singleton, 2017[70]). By contrast, researchers identify dedicated health and safety representation as having a countervailing effect to employers' tendency to under-report work accidents (Amossé et al., 2012[78]).

In an attempt to get around these potential biases, Li, Rohlin and Singleton (2017[70]) exploit the timing and results of union elections (comparing unions which succeed or fail by a very small margin) to assess the effect of union presence and occupational and safety outcomes in manufacturing plants in the United States.[17] Their results indicate that union elections improved occupational safety as measured by accident rates and number of workplace inspections.

Results are also contrasted when looking at the effect of different forms of voice more generally. Representative forms of workers' voice are associated with lower exposure to risks than direct forms of voice. Using data from the Workplace Employment Relations Study in 2011 in the United Kingdom, Bryson and Forth (2017[62]) show that the presence of health and safety representatives was associated with workers being exposed to lower health and safety risks than in cases where health and safety was dealt with through direct consultation between management and employees.

Menéndez et al. (2009[67]) argue that the presence of workers' health and safety representatives allows for a more systematic organisation of prevention. Yet the authors add that the presence of safety representatives constitute a necessary but not sufficient condition to ensure better health and safety outcomes. Representatives must be given enough time to complete their duties, as well as appropriate training. Yet according to the Continuing Vocational Training Survey (CVTS) covering 19 European countries, in 2015, workers had access to occupational health and safety training of at least three hours in only 14.5% of firms.[18] In addition to a technical approach to health and safety issues, appropriate training for safety and health representatives includes training in participatory methodologies to equip representatives with the adequate skills for the task of relaying the concerns and problems of workers on the ground. In that regard, the constitution of networks of representatives supported by dedicated union institutions providing logistical support as well as technical information to workplace representatives is identified in the literature as a best practice. Management commitment also emerges as an important determinant of the efficiency of health and safety representatives. In particular, the efficiency of prevention policies seems to hinge on active engagement from both management and workers' representatives (Menéndez et al., 2009[67]; Walters and Nichols, 2009[68]). Finally, other complementary institutions are necessary to ensure the effectiveness of workplace safety representatives. In particular, health and safety inspectorates have an important role to play in ensuring regulatory enforcement.[19]

Results also vary by outcomes studied. Having dedicated health and safety representatives in the workplace is associated with improved physical working conditions and a reduced rate of accidents. The effect on injury rates is found to increase with the representatives' level of health and safety training (Eaton and Nocerino, 2000[72]). By contrast, representatives' effect on health-issues related to work organisation and the introduction of technological changes is more limited (Walters and Nichols, 2009[68]).

Occupational health and safety rights remain more hindered in practice in small firms, and in sectors with a relatively high share of non-standard employment, where workers' representation remains more limited (Menéndez et al., 2009[67]). Following trade union campaigning, legislation was introduced in Spain in 2006, which requires employers in the construction industry to inform safety representatives about their subcontracting arrangements. Sector-level agreements can provide for the training of a joint safety representative for subcontracted workers and direct employees on the same work site. In the case of small firms, solutions such as the Swedish network of regional safety representatives have proven to be efficient (see Box 4.2 below). Yet there remain challenges to ensure that occupational health and safety regulations cover all workers, especially as new forms of work emerge, which might be harder to reach for labour inspectorates and unions (Walters, 2017[79]), and might present new and specific risks. For example, the development of platform activities in the transport sector increases exposure to the risk of accidents (Barrios, Hochberg and Yi, 2018[80]).

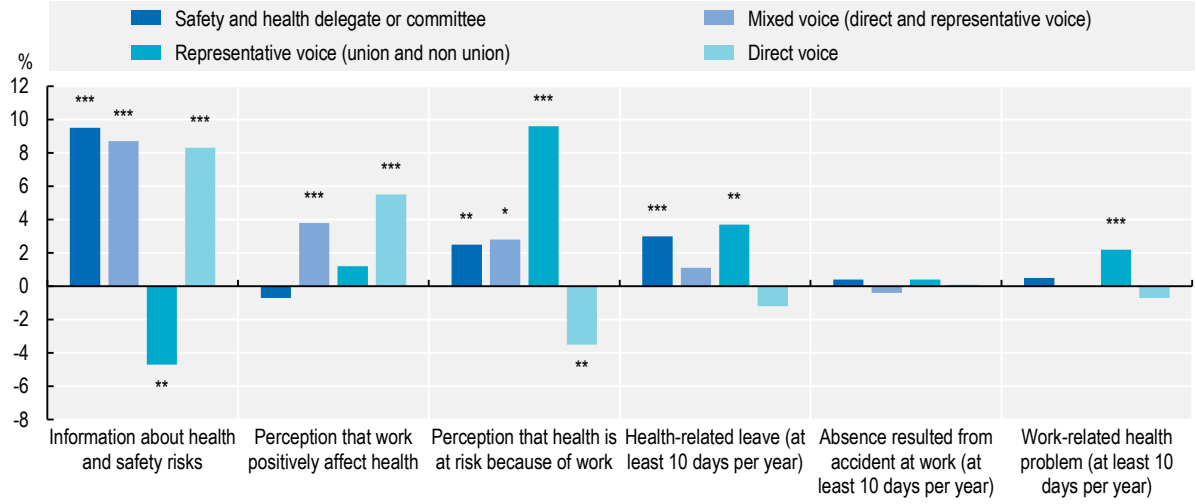
Beyond the case of non-traditional workers, small firms, and new forms of work, Bryson and Forth (2017[62]) highlight a more general weakening of workers' representation in health and safety issues in Europe. The authors attribute this trend to deregulatory trends and managerial policies – see Walters and Wadsworth (2017[81]). In France, following the 2018 Law ratifying the *Ordonnances* reform, the various workplace representation institutions p (with particular mandates ranging from e.g. safety and health, to more general employee representation) have been merged into one unique institution (the *Comité social et économique, CSE*). This was motivated by a willingness to avoid the multiplication of legally mandated institutions and to simplify the system. This reform is still being implemented and therefore has not been evaluated yet. The suppression of institutions dedicated to health and safety has raised concerns amongst social dialogue

experts (Chamboredon and Daniel, 2018[82]), as possibly representing a loss of specific expertise on the issue of occupational health and safety. In addition, the existence of an institution with a dedicated mandate tends to guarantee that representatives have sufficient time for the job of reporting on the safety and health situation, as well as proximity with concrete on the ground issues (Vogel, 2015[83]).

Figure 4.5 shows the correlations between various types of workers' voice and various occupational safety and health measures. The picture emerging from this analysis is consistent with the pattern of reverse causality discussed in commenting Figure 4.3 above. Namely, representative-only forms of voice are positively associated with workers' perception that their work negatively affects their health and that their health is at risk because of work. This cannot plausibly be explained by an increase in awareness of risks due to representation, since at the same time these representative-only institutions are negatively associated with access to information about occupational safety and health risks. They are also positively associated with frequencies of health-related leave and work-related health problems. This might be interpreted as signalling a self-selection phenomenon, whereby in the absence of direct channels of dialogue, workers making use of representative forms of voice are likely to be those with worse occupational health. By contrast, mixed and direct-only forms of voice are positively associated with workers' access to information, and with their perception that work has a positive effect on their health. Finally, the presence of a dedicated health and safety delegate or committee is positively associated with workers' access to information, with their perception that their health is at risk because of work, and with frequencies of health-related leave. This could be explained by the fact that the presence of a dedicated institution increases workers' awareness of risks and of the possibility to take health-related leave.

Figure 4.5. Correlations between occupational safety and health (OSH) measures and workers' voice arrangements

Percentage, employees aged 15-64, 2015



Note: Results are based on probit regressions including additional controls for age, education, gender, type of contract (permanent or temporary contract), occupation, job tenure, firm size, industry, sector (public and private) and country dummies. The chart reports marginal effects, i.e. percentage change in the outcome variable following a discrete change in the relevant explanatory variable from the base level (no workers' voice arrangements). For further details, see Annex Table 4.A.2. "Perception that work positively affect health" refers to the following question: "Does your work affect your health?". "Perception that health is at risk because of work" refers to the following question: "Do you think your health or safety is at risk because of your work?". *,**,***: statistically significant at the 10%, 5%, and 1% level, respectively.
Source: OECD estimates based on the 6th European Working Conditions Survey (EWCS), 2015.

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Box 4.2. Extending workplace representation to small firms: the case of the Swedish regional safety representatives

The notion that health and safety representatives in the workplace have a positive impact on occupational health is relatively consensual among practitioners and researchers. However, it can be materially challenging to implement in small workplaces (Walters and Nichols, 2009[68]). A solution to this issue has been found in Sweden, where, since the 1970s, a network of over 2 000 regional safety representatives (RSRs) have had the task of creating a culture of workplace risk prevention in small workplaces and of extending the benefits of representation to SMEs.

Safety representatives have the same status and the same rights as trade union representatives. Like local safety representatives, they are appointed by trade union organisations, but by contrast with them, they have a larger area of supervision, either sectoral or determined through a specific agreement, generally in a particular geographical remit. Regional safety representatives' mandate is primarily with SMEs with up to 50 employees (Wiklund, 2011[84]). They currently cover about four-fifths of small workplaces (Walters and Nichols, 2009[68]). While their activities are largely government funded, trade unions also increasingly contribute themselves to the RSRs' budget (Wiklund, 2011[84]).

Regional safety representatives play several roles: they ensure compliance with health and safety rules through visiting workplaces, in addition to visits organised by the health and safety services; they appoint, train and support local representatives; they disseminate information and provide advice on how to solve health and safety issues on the ground; they act as whistle blowers by shedding light on emerging problems and risks; and they encourage workers' participation in health and safety programmes as well as regular interactions between employers and employees on this issue (Wiklund, 2011[84]; Walters and Nichols, 2009[68]).

Regional safety representatives are estimated to visit workplaces between five and ten times more often than labour inspectors do (Walters and Nichols, 2009[68]). According to Wiklund (2011[84]), in 2009 the Swedish Trade Union Confederation (*Landsorganisationen i Sverige*, or LO) affiliates' regional safety representatives made 74 181 workplace visits, while the Swedish Work Environment Authority did only 30 000 workplace inspections.

4.3.2. Working time

The quality of working time can be captured through two main aspects: its *duration* (i.e. the number of hours worked, overtime, etc.) and its *organisation* (atypical schedules such as night work, weekends, and the flexibility workers' have to combine work arrangements with personal or family matters). The quantity of hours worked increases the risk of poor health outcomes, notably if workers cannot properly rest and take leave.[20] A good work-life balance supporting workers' preferences is also crucial for enhancing individual well-being.[21] This second aspect of working time quality is gaining ground in recent bargaining rounds with the development of increasingly flexible non-standard forms of work, of new organisational patterns, as well as the expansion of new technological and communication tools.

Working time can be regulated at different institutional levels, with complex relationships and references to each other: statutory legislation usually sets general standards, while collective agreements at sectoral or firm level further specify them or may even modify them. For instance, most aspects of working time duration (e.g. very long hours, rest and recovery, etc.) are framed by national and international legislation (EU Charter of Fundamental Rights, EU Working Time Directive,[22] the ILO Convention 001 on Working Time), but collective bargaining at sector and firm levels, as well as individual negotiation between employers and employees can result in different outcomes (e.g. agreed normal working hours versus legal working hours).

Furthermore, social partners can also play an active role through bargaining, advocacy and lobbying in the definition of minimum (or maximum) provisions of other aspects of working time, such as overtime (maximum amount of hours and negotiating extra pay), night and weekend work or flexible working time arrangements, such as teleworking facilities (European Framework Agreement on Telework, 2002).

Working time is typically one of the areas where social partners have margins to tailor the specific conditions to their needs, leading to significant differences across OECD countries in the definition of normal working hours or overtime, night and weekend work or flexible working time arrangements. In France, for instance, a series of reforms have been implemented since the 1980s (*lois Auroux*) to give enterprises greater flexibility to adjust to firm-level economic conditions and constraints, giving them the possibility to set a number of aspects of working time by collective agreements even if these were less favourable to workers (*in peius*)[23]. In 2008, the reform of the Working Time Law, offered enterprises the possibility to modulate weekly hours worked over several weeks and up to one year, and adjust compensatory rest periods and extra pay accordingly. In 2016, the Labour Law (*Loi El Khomri*) strengthened this decentralisation process by introducing the primacy of firm-level agreements over sectoral ones in defining working time, leave and rest periods; in the absence of any firm-level agreement, sectoral level agreements apply. The 2018 Law (ratifying the September 2017 *Ordonnances*) went further to promote firm-level bargaining by providing enterprises with the flexibility to adjust working time to economic fluctuations through new collective agreements for competitiveness which should even prevail over the employment contract.

Eurofound (2016[85]) provides a useful taxonomy of working time regimes for European countries. In the "pure mandated working time regimes", collective bargaining over working time issues is not frequent, and collective agreements covering working time duration and organisation are rare, as statutory legislation covers the majority of workers (most Central and Eastern European countries). In the "adjusted mandated working time regimes" (such as France, Greece, or Portugal), the State plays a dominant role in regulating working time standards (in particular maximum working time duration), but these can be adapted through collective bargaining and at various levels (sector, firm or individual). In the "negotiated working time regimes" (Scandinavian and Northern European countries, Germany, Italy and Spain), statutory legislation is still relevant for the definition of working time standards, but defines the general framework while standards are mainly set by collective agreements, usually at sectoral level; such agreements can be further complemented by firm-level bargaining on working time organisation. Finally, in the so-called "unilateral working time regimes", the most operational level regarding working time is the individual level, and the terms of working time duration and organisation are usually set in employment contracts and tend to reflect the conditions offered by the employers (the United-Kingdom).

While working time is a crucial component of working life, it is also a key variable of labour market adjustment in providing internal flexibility to enterprises, putting its regulation at the core of economic and social debates at national and international levels.[24] The definition of working time duration, notably, and the compensation for overtime, have been among the most frequent topics of working time regulation over which social partners have been engaged, notably in Europe. According to the AIAS database on collective agreements in the retail and commerce sector across EU countries (Besamusca, Kahancová and Tijdens, 2018[86]), about 90% of collective agreements deal with weekly days and hours of work, while a few limit the number of consecutive Sundays that can be worked. Available data on contractual working time in Italy also show noticeable differences between legal and collectively agreed working time at sectoral level – on average, around three weeks less of work over a year but with very large variations across sectors.[25] Interestingly, recent agreements in some OECD countries suggest that the flexibility of working time arrangements are gaining ground in collective bargaining (European Commission, 2018[87]), possibly reflecting workers' individual preferences and company recognition of the negative impact of job strain on productivity (Saint-Martin, Inanc and Prinz, 2018[2]).

In 2018, in the region of Baden Württemberg in Germany, a landmark agreement in the metalworking sector has introduced the possibility for workers to reduce their working week from the standard 35 hours to 28 hours (while preserving the right to full-time work), but also a number of options on the extent of working time

open for further negotiation at company level. This agreement provides interesting insights about a shift in bargaining priorities towards providing greater workers' choices reflecting their work-life balance preferences (Box 4.3). It is also a good example of an organised decentralisation configuration which sets working time at sectoral level, but leaves room for company-level negotiations, within a predefined set of options. "À-la-carte models" in sectoral agreements in Denmark and the Netherlands (Ibsen and Keune, 2018[88]), or Austria ("Free time option") also give individual employees significant flexibility to choose between money and time.

Box 4.3. A step towards greater employee working time "sovereignty"? Individual choice options in new German collective agreements.

In Germany, the issue of reducing working hours recently returned to the bargaining agenda in several sectors. Interestingly, collective agreements signed in 2018 were pointing to a shift of unions' claims for offering greater individual choice rather than across-the-board cuts (Schulten et al., 2019[89]). The German metalworkers' union IG Metall and the Baden-Wuerttemberg Employers' Association of the Metal and Electrical Industry (Südwestmetall) reached an agreement in 2018 offering the possibility to workers in the metalworking sector to reduce their working week from the standard 35 hours to 28 hours (together with a proportional decline in nominal monthly wage), while preserving the right to return to full-time work. In return, firms have obtained the flexibility to offer more 40-hour-a-week contracts to compensate the individual right to request "short full time". In addition, an employee choice model was agreed allowing shift workers and employees with children or family members needing care to opt either for the annual bonus of 27.5 per cent of a monthly wage or eight extra days of holiday a year instead (see Table 4.1). Priority was clearly given to individuals' preferences over working time. This followed a large-scale survey of about 700 000 employees undertook by IG Metall, which showed that for many employees, there was a significant gap between the contractual working hours, the hours they actually worked and the hours they wanted to work. Other sectoral agreements in Germany have dealt with similar claims, such as the search for a better work-life balance and more flexibility around working time. Other sectors or regions (the Deutsche Bahn, the Deutsche Post, the local transports in Bavaria, etc.) negotiated similar agreements proposing a wider range of options for greater "employee sovereignty" in their choice between money or time off (see Table 4.1).

Table 4.1. More money or more time off?

Sector	Pay increase	Working time reduction	Eligible employees
Deutsche Bahn (from 2018)	2.6% wage	1 hour a week or 6 days off per year (from 2018)	All those covered by collective agreement
Metalworking and electrical industry (from 2019)	Bonus of 27,5% of one monthly wage per year	8 days off per year	Employees with children under 8, with relatives needing care or in shift work
Deutsche Post (from 2019)	3% wage	60.27 hours annual working time	All those covered by collective agreement
Local public transport	Up to 2.5% wage, + 0.25% (employees in shift work)	Maximum of 5 additional days off + 1 extra day (employees in shift work)	All those covered by collective agreement

Source: Schulten et al. (2019[89]), "Collective bargaining report 2018: Large pay rises and more employee choice on working hours", https://www.boeckler.de/pdf/p_ta_jb_2018_english.pdf.

Empirical research on the link between collective bargaining and working time outcomes has mostly looked at unions' effects on working time duration, i.e. the role of unions in limiting long working hours or uncompensated overtime. Veliziotis' (2010[90]) study of overtime based on the British Household Panel Survey indicates for instance that unionised employees work fewer unpaid overtime hours than non-covered ones in the for profit, non-caring sector.[26] This is attributed in part to union protection. Using data from the Workplace Employment Relations Survey in 2011 in the United-Kingdom, Bryson and Forth (2017[62]) also find that unionised employees work fewer hours of unpaid overtime, and that union members enjoy longer paid holiday entitlements.

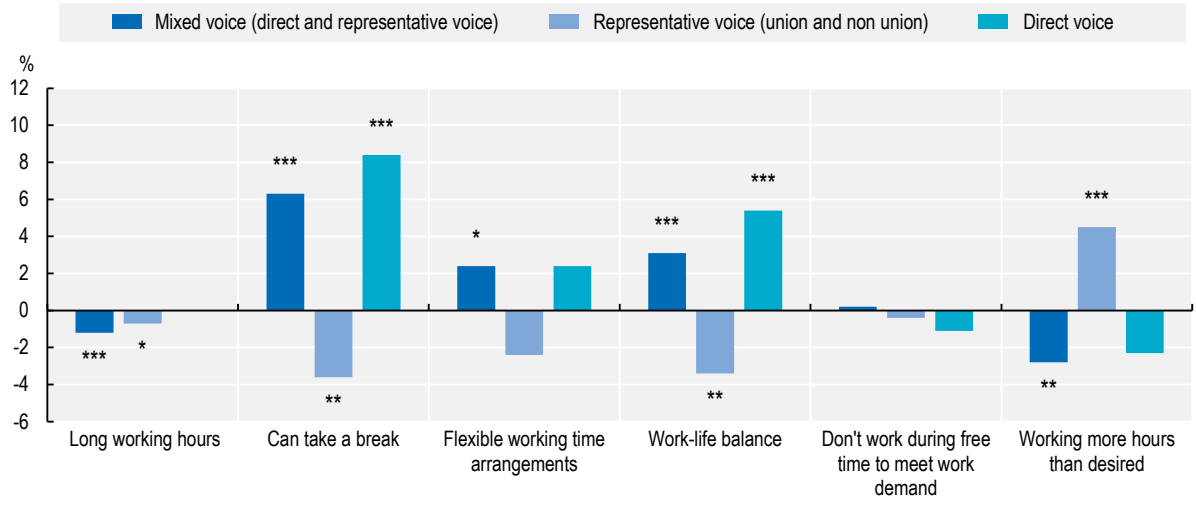
Based on the four main working time regimes described above, Eurofound (2016[85]) finds that on average, usual working time was shorter in countries with negotiated and adjusted mandated working time regimes, and longer in unilateral and pure mandated regimes in Europe. The study also compared agreed working time (e.g. the hours that workers are expected to spend on work according to agreements reached through collective bargaining at sectoral or firm level or through individual negotiation between employer and employee) and usual working time to assess the extent of overtime and of compliance with working time regulations. It showed that the unilateral regime is associated with weaker compliance with working time regulation and longer overtime. The negotiated regime, in contrast, tends to have stronger levels of compliance with working time regulation and hence the smallest deviations from agreed provisions.

Beyond these results, evidence on unions' effect on working time organisation is rather limited. In their study on the value added of unions, Bryson and Forth (2017[62]) report evidence from the late 1990s, on unions' impact on work-life balance arrangements, notably showing that unionised workplaces tend to have higher levels of provision of family friendly practices, such as parental leave, paid family leave, job sharing, etc. compared with similar workplaces without unions (Dex and Smith, 2002[91]; Budd and Mumford, 2004[92]). Unions also increase employees' awareness of such practices through information provision, thus facilitating their use. However, options to telework or have flexible working hours were less common in unionised settings (Bryson and Forth, 2017[62]). In his study on the link between shorter workweek and well-being in Portugal and Spain, Lepinteur (2019[93]) finds that the presence of institutions of worker representation were important for ensuring that working time reductions lead to welfare gains.

Figure 4.6 displays the correlation between the different form of workers' voice arrangements and various working time outcomes. The results show that the direct forms of workers' voice arrangements are associated with higher flexibility of working time measured as the possibility to take a break and flexibility in setting one's own working time, and with a better combination of working hours with family or social commitments. The additional presence of a representative form of workers' voice (mixed voice) is consistently associated with higher working time flexibility, and better work-life balance. It is also correlated with less long working hours (over 50 hours a week) and a better satisfaction with working time (measured as the difference between the number of hours people work and their ideal working time duration). On the other hand, representative only forms of voice, in the absence of direct voice mechanism are associated with lower working time flexibility, unbalanced work-life schedules and lower satisfaction with working time duration. These results are consistent with the previous patterns and may be partly explained by the pattern of reverse causality identified before.

Figure 4.6. Correlations between working time measures and workers' voice arrangements

Percentage, employees aged 15-64, 2015



Note: Results are based on probit regressions including additional controls for age, education, gender, type of contract (permanent or temporary contract), occupation, job tenure, firm size, industry, sector (public and private) and country dummies. The chart reports marginal effects, i.e. percentage change in the outcome variable following a discrete change in the relevant explanatory variable from the base level (no workers' voice arrangements). For further details, see Annex Table 4.A.2. *,**,***: statistically significant at the 10%, 5%, and 1% level, respectively.
Source: OECD estimates based on the 6th European Working Conditions Survey (EWCS), 2015.

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4.3.3. Training and re-skilling

The skills possessed by workers and their utilisation are key drivers of workers' performance in all advanced and emerging economies. Returns to skills not only show up in the form of higher employment but also of better jobs in terms of higher earnings quality, lower job insecurity and lower job strain. Having the right skills for work and therefore getting adequate training on the job are key resources for workers to undertake the job they are assigned to as well as to improve their career opportunities. Moreover, given the speed of change of how work is organised and carried out, training is increasingly important to help individuals to maintain and upgrade their skills throughout their working lives. Beyond their instrumental role, training and learning opportunities on the job have an intrinsic value for workers as they provide workers with a chance to fulfil their ambitions, to feel useful in society and to build self-esteem.

Adequate public policies to promote adult learning are key to allow workers to skill and re-skill themselves over their working lives – see OECD (2019[94]) for a detailed discussion. However, social partners also play a major role in several countries. Most adult learning takes place at work. Large companies invest significant resources in training but medium and small firms often do not have the capacity to follow suit. Employers' organisations and workers' representatives are therefore key to ensure that enough time and resources are devoted to training in all companies irrespective of the type of firms or workers' contract type.

Early work conducted in the United States found a negative correlation between unionisation and participation in training – see e.g. Duncan and Stafford (1980[95]), Barron et al. (1987[96]), but more recent studies find a positive one as the issue of training rose on the agenda of unions – see e.g. Green (1993[97]), Lynch (1994[98]) and Booth et al. (2003[99]).

According to OECD (2019[100]) and (2019[101]), the involvement of employers and worker representatives is potentially relevant at all stages of the policy cycle, from the identification of problems that require attention, to the development and management of training programmes as well as their monitoring and evaluation. Currently, unions and employers' organisations are involved in skills assessment and anticipation exercises in the majority of OECD countries: according to OECD (2019[100]), employers and employers organisations are involved in exercises to identify which skills are needed in the current labour market and moving forward in 69% of the countries; trade unions in 59% of the countries.

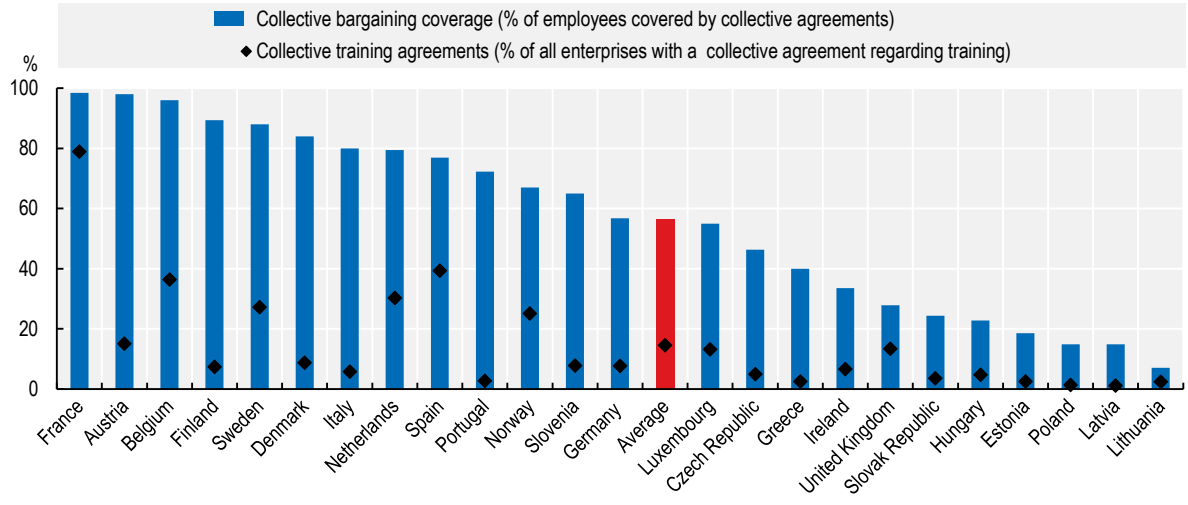
Moreover, almost half of OECD countries have skills councils that, among other things, conduct skills assessment and anticipation exercises. In the United Kingdom, for instance, *Sector Skills Councils*, jointly managed by both employers and workers' representatives, produce national occupational standards, design and approve apprenticeship frameworks, and make long-term projections for their industry so that qualifications and occupational standards can meet future skill demands. In Canada, sector councils are national partnership organisations that bring together business, labour and educational stakeholders (Gunderson, 2011[102]; Gunderson and Sharpe, 1998[103]). They represent approximately half of the Canadian workforce. Their primary role is to facilitate training and foster tripartite discussion on emerging human resources and skills issues. Although sector councils operate at arm's length from the government, the federal government supports sector councils through its Labour-Management Partnerships Program by providing funding to joint labour-employer initiatives focused on education and training. Job Security Councils in Sweden and Inplacement Labour Foundations in Austria are other interesting examples of social partners actively managing and designing training services (see Chapter 5 for more details).

Access to life-long training for workers can be negotiated and secured in collective agreements and is an increasingly important issue of collective bargaining. For instance in 2016, unions in the metal sector in Italy traded lower-than-expected wage increases for a new provision at sectoral level, ensuring a minimum amount of employer-supported yearly training to all workers, irrespective of the company they work for. The agreement, however, has largely failed to materialise so far, as companies, but also local unions, struggle to implement the new possibility opened by the sectoral agreement.

In Denmark, a national-level tripartite agreement was signed in 2017 that specifically focused on adult and continuing training. It included a series of initiatives over four years to increase and improve the access to and the quality of adult learning. In particular, the agreement set up a new "reconversion fund" of around EUR 53 million allowing workers to undertake further training on their own initiative (Eurofound, 2018[104]).

Yet there exists a substantial margin for improving the inclusion of training provisions in collective bargaining: on average in OECD countries, only about 15% of firms are covered by an agreement (either at sectoral level or at firm/establishment level) containing provisions on training.[27] Although there is a large cross-country variation, from almost no firms covered by training provisions in Central and Eastern European countries to only about 10% in Finland or Denmark to 79% in France (Figure 4.7). Moreover, it is important to note that firms and unions may also provide training in the absence of any collective agreement.

Figure 4.7. Number of firms covered by a collective agreement including training provisions, 2010-2015



Note: Data refer to 2015 or closest year. "Collective bargaining coverage" refers to the ratio of employees covered by collective agreements, divided by all wage earners with right to bargaining. "Collective training agreements" refers to the percentage of all enterprises that indicate that, at the time of the survey, collective agreements between social partners concluded at national, regional or sectoral level usually cover the provision of continuous vocational training in their enterprise (excl. agreements concluded at enterprise level). Data for Sweden and Poland refer to 2010 for the data on collective training agreements, and 2011 for the data on collective bargaining coverage. Average is the unweighted average of countries shown (survey weights are used).
Source: Eurostat CVTS data (2010, 2015), OECD Database on Collective bargaining coverage.

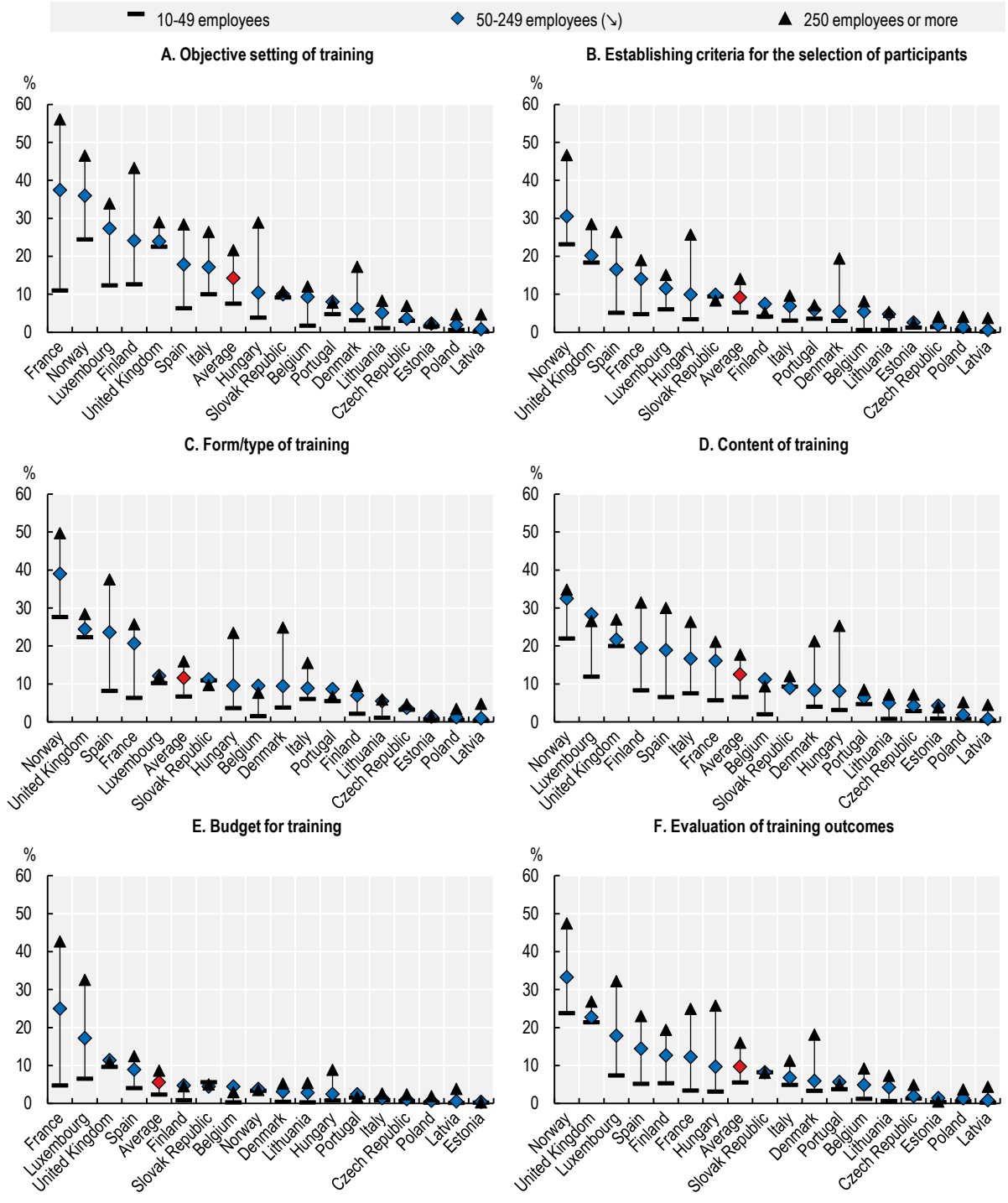
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In some cases, unions or workers' representatives are directly involved by the management in setting priorities for adult learning at company level or in defining the type and the content of training. Figure 4.8 shows the degree of involvement of staff-representatives in setting training policies at the company level in European countries by firm size. Finland, France, Luxembourg, Norway and the United Kingdom show the highest degree of social partners' involvement. However, the chart also shows that the involvement of staff representatives is largely confined to larger firms and, with the exception of Norway and the United Kingdom, quite limited otherwise. European Commission (2019[105]) shows that smaller firms' training disadvantage diminishes with employee representation.

In the United Kingdom, unions have made a specific investment in training provision by creating Unionlearn in 2006. Unionlearn supports trade unions to help workers acquire skills and qualifications to improve their employability. One of its key activities is the training of Union Learning Representatives (ULRs), who encourage the take-up of learning in the workplace, help workers identify training needs and arrange learning opportunities within their companies. Since its inception in 2006, Unionlearn has trained more than 41 000 ULRs. It provides learning opportunities to about 250 000 workers per year, including disproportionally high numbers of workers with no or low qualifications (Stuart et al., 2016[106]). Unionlearn also manages Union Learning Fund (ULF) projects that are run by individual unions to promote the take-up of learning and skills in the workplace and government provides funding for both the ULF and Unionlearn. The investment of unions on training appears to pay off: using official establishment and individual-level survey data, Stuart, Valizade and Bressa (2015[107]) show that over the period 2001-2013 union members were a third more likely to have received training than non-unionised employees. Moreover, non-union members also benefit from being in a unionised establishment: 38% report a recent training period compared to 25% in workplaces where unions do not have negotiating rights.

Figure 4.8. Training aspects covered by staff representatives/committees by firm size

Percentage of employees, 2015



Note: Average is the unweighted average of countries shown (survey weights are used).
Source: OECD calculations based on CVTS 5 Scientific Use files.

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In several OECD countries, social partners play a direct role in managing and funding training programmes (see Table 4.2). A particularly interesting case is that of the O&O funds (*Opleidings- en Ontwikkelingsfonds*) in the Netherlands, which are financed primarily through a compulsory payroll levy fixed by collective agreement. O&O funds provide lifelong learning to workers to keep them "up-to-date" and ready to find new jobs in the future. The funds also promote campaigns on the importance of training, and finance or kick-start projects on the ground. Again, a constant exchange between social partners allows O&O funds to anticipate skill needs. In Italy, social partners-led training funds also represent one of the most important sources of financing of adult learning (see Box 4.4). A direct role of social partners in the funding and management of training funds can contribute to make the system more effective as social partners can help ensuring that their own money is spent well and targeted on actual needs. However, when social partners are fragmented and numerous, their governance may be very complicated. Moreover, training funds based on mandatory firm contributions can also lead to an inefficient allocation of resources and very expansive training programmes, notably if they end up subsidising compulsory training that would happen regardless of the subsidy. Training funds can also be inefficient if the training reflects more what existing providers are able to offer, rather than the needs of companies, particularly new or growing ones (see Box 4.4). Evaluations and quality certifications are therefore key to ensure that training funds effectively respond to the skills needs of workers and companies.

Table 4.2. How much are social partners' involved in training programmes in OECD countries?

Highest level of involvement	Country			
1) Trade unions and/or employers finance some ad hoc training initiatives	Australia Chile Czech Republic	Estonia Finland	Latvia Norway	United Kingdom United States
2) Employers pay a compulsory training levy to a government fund	Canada (QB) Ireland	Korea Poland	Spain	
3) Employers and trade unions are in charge of managing and funding training programs[1]	Austria Belgium Denmark	France Germany Greece	Iceland Italy Luxembourg	Netherlands Sweden Switzerland

Note: QB: Québec. "Training" in this table refers both to vocational training and lifelong learning. Categories 1 to 3 are not mutually exclusive. Countries are classified based on social partners' highest level of engagement on average across industries. This means that countries in category 3 might also belong to categories 1 or 2 (and those in category 2 could belong to category 1). For instance, in France, there is a compulsory levy on medium and large firms (to finance the *Compte Personnel de Formation*), but social partners are further involved in the funding and managing of training funds – hence France appears in category 3. In addition, in countries in categories 1 or 2, social partners may also manage a training fund in *one* specific sector: this is the case in Spain and the United States, where social partners manage training funds in the construction sector. However, these examples are not representative of the situation in the whole country.

1. At least in several sectors. Depending on countries, funds for training programs can be compulsory or voluntary, and they can be mandated by law or agreed upon through collective bargaining.

Source: OECD Policy Questionnaires on Collective bargaining as well as information collected in the context of the OECD project on "Getting skills right: promoting workforce adaptability".

Box 4.4. The role of training funds in Italy

In Italy, social partners manage Training Funds (*Fondi paritetici interprofessionali per la formazione continua*). These funds finance workers' training using resources collected through a training levy imposed on employers (small by international standards, 0.3% of the payroll compared with 0.8% in Ireland, up to 1% in France, up to 2% in the Netherlands and 2.5% in the United Kingdom). Since their introduction in 2004, they have contributed to a significant increase in adult learning participation. Covering almost 1 million firms and over 10 million workers, and managing over EUR 600 million a year, today Training Funds represent one of the most important sources of financing for workers' continuous learning in Italy.

While a large and growing number of firms are covered by Training Funds, small and medium enterprises as well as most vulnerable workers still remain to a large extent excluded. In 2016, only 57.1% of small firms (10-19 employees) provided training, compared to 93.3% of larger firms (250+ employees). Moreover, even those SMEs that supply training use available funds much less than larger companies. Furthermore, as training is funded through a levy paid by employers, firms typically have a great deal of autonomy in deciding who gets training, and often end up targeting training efforts to groups for which training yields the highest returns: the most skilled, those in high-skilled occupations, or younger workers with longer career prospects.

The type and quality of the training offered is also an issue. Compulsory Occupational Safety and Health (OSH) training represents over 30% of all supported training activities in Italy, while ICT training accounts for just above 3%. This may reflect the structure of the Italian market. Indeed the latter is characterised by a large number of small family-led businesses, which are often more concerned about complying with compulsory training obligations than with developing new skills (e.g. ICT) that may take time to pay off. However, this also reflects a more general difficulty in understanding training needs and developing appropriate plans even in the presence of generous subsidies. While some Training Funds have taken steps to measure the impact that training has on firms and workers, a systematic effort to monitor the quality of the initiatives and an evaluation of their effect is missing.

One advantage of Training Funds compared to publicly provided training is that social partners are closely associated to their management. In practice, yet, the fragmentation of the Italian bargaining system (Italy has the second highest number of employers' organisations and trade unions in the OECD) complicates their governance. Moreover, the involvement of trade unions remains in some cases only formal. Despite these limitations, the Italian Training Funds represent an important tool in the hands of social partners to invest in skills and improve the quality of the working environment.

Source: OECD (2019[108]), *Adult Learning in Italy: What Role for Training Funds?*, Getting Skills Right, https://dx.doi.org/10.1787/9789264311978-en.

4.3.4. Work organisation and management practices

The organisation of work as well as management practices generally aim at reaching higher productivity (Bloom and Van Reenen, 2007[109]; Bloom et al., 2014[110]) through influencing processes and job design. However, they also affect workers' job quality and union strive to be involved in their definition. Their effect is a priori ambiguous as it depends on the actual content of the different practices and on how they are rolled out. In particular, new work organisation and management practices may improve physical working conditions by making work less physically demanding, safer and by giving workers more autonomy and discretion over their tasks. Moreover, they may boost employees' motivation, work performance and job satisfaction. However, more efficient management practices may also come at the cost of higher pressure

and stress. Empirical studies on the effect of management practices on job quality are rare. Among the few exceptions, Applebaum et al. (2000[111]) find that management practices promoting participation, incentives and skills are linked to higher wages, higher job satisfaction, lower job-related stress and, at the company level, to better competitiveness and efficiency.

While the deployment of management practices is first and foremost the remit of managers, unions and collective bargaining can also contribute to it in direct and indirect ways. First, the promotion of better management practices may be a way for firms to respond to unions' demands (Freeman and Medoff, 1984[1]). This is consistent with the relatively old theory that wage increases put pressure on managers to find margins of profits elsewhere, including by improving companies' productivity through more efficient management practices (Slichter, Healy and Livernash, 1960[112]). By contrast, some authors have also argued that management practices may have been strategically used to bypass and weaken trade unions (Kochan, 1980[113]). The concurrent decline of trade union membership with an increase in HR and management practices has led some researchers to study the potential link between the two phenomena. However, a review by Brown et al. (2009[114]) has failed to identify substantive evidence to back this hypothesis.

Second, unions may play a direct role in promoting or resisting the adoption of new work organisation and management practices. By providing a platform for collective voice, unions may promote the adoption of new practices to improve the working environment and even facilitate their adoption by getting workers on board. For instance, Machin and Wadhwani (1991[115]) find a positive correlation between unionised establishments and organisational change. While this may simply be due to unionised workplaces lagging behind in terms of work organisation and having to catch-up at the time of the evaluation, the authors also suggest that, by allowing for collective voice, unions stimulate organisational change and the adoption of new management practices. With more recent data, Askenazy and Forth (2016[116]) also find that in France and the United Kingdom, practices such as team working and functional flexibility are more likely to be found in unionised than in non-unionised workplaces today. In fact, a review by Bryson and Forth (2017[62]) concludes that, while evidence from the 1980s suggested that unions in the United Kingdom were a brake on work re-organisation, that does not appear to be anymore the case these days. A case study in Box 4.5 of the implementation of the "World Class Manufacturing" by the car manufacturer Fiat Chrysler Automobiles shows the key role played by establishment-level unions in Italy and the United States in accompanying organisational changes seen as essential by Fiat and Chrysler's management to save the company during the global financial crisis. By contrast, unions may resist organisational change and new management practices, in particular those that they deem less favourable to workers or those that have not been sufficiently discussed. For instance, union presence in United States plants has been found to be associated with a lower rate of adoption of performance pay and appraisal (Wood, 1996[117]) as unions resist practices that result in a higher individualisation of pay policies. Similarly unionised workplaces in the United Kingdom are also less likely to have incentive-based pay systems in place (Askenazy and Forth, 2016[116]).

Finally, in some cases, the involvement of unions and collective agreements in the definition of work practices has been mandated by the law itself. For instance, the Swedish Co-Determination at Work Act of 1977 extended collective bargaining into areas of organisational and technical change in an attempt to give unions a real say over working conditions before any final decisions are taken. In Denmark social partners were directly involved in the enforcement of the Working Environment Act of 1975 which made it compulsory for employers to establish a safe working environment for staff, and to engage in regular risk assessment exercises to prevent work-related stress among employees. In Germany, workers' representation in supervisory boards in large companies also allows workers to have a say in the definition of companies' strategies. Supervisory boards are in charge of appointing the top management, reviewing its performance and giving advice on the general strategy of the company. They can also define a list of operations where its approval is required before they are undertaken. In the coal, iron and steel industries, workers' representatives on the company board can also veto the appointment of the company Human

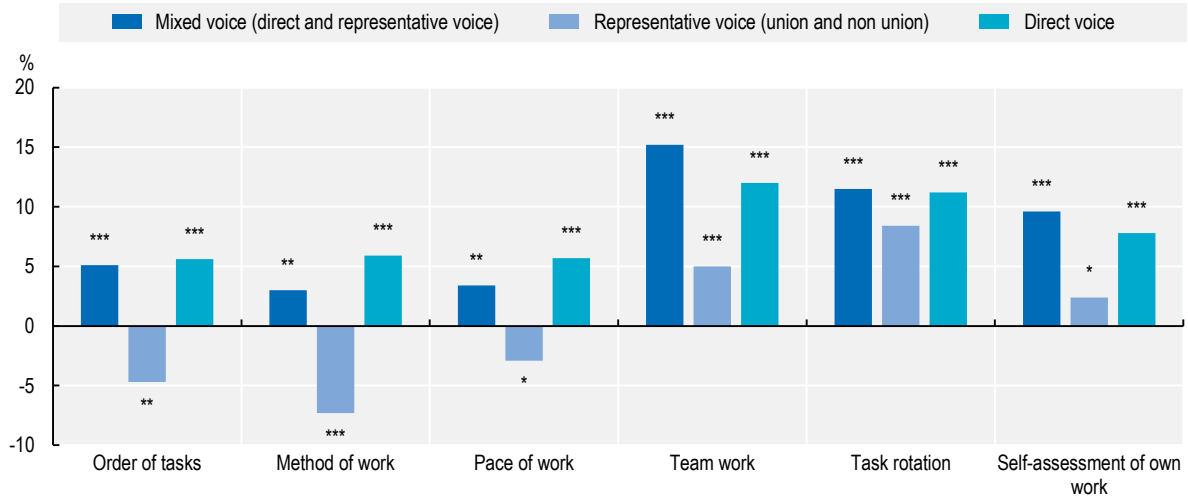
Resources director (ETUI, 2015[118]). Since 2002, a European Union Directive[28] established a general framework on information and consultation according to which employees have to be consulted on decisions likely to lead to substantial changes in work organisation, in firms with more than 20 (or 50, depending on member countries) employees.

Figure 4.9 shows the correlation between some types of work organisation and management practices such as autonomy (measured as the freedom to set the order of tasks, the method of work and the pace of work), teamwork, task rotation and the self-assessment of one's own work[29] and different forms of workers' voice using individual-level data from the European Working Conditions Survey. The results show that, in European countries, direct and mixed forms of workers' voice are consistently associated with higher work autonomy and a higher incidence of practices such as teamwork, task rotation and self-assessment of one's own-work. In particular, they are positively associated with workers' autonomy (measured as the possibility to choose or change the sequence of tasks, the possibility to choose or change how the work is done and to choose/change the speed/rate of work), with teamwork, job rotation or with having the responsibility for quality control. By contrast, representative-only forms of voice are not consistently associated with a larger use of these work organisation and management practices.

As discussed before, this may reflect a selection effect on the side of employers. Indeed, direct forms of voice can only flourish in contexts where management is willing to hear feedbacks from workers, and where the relationship between workers and managers is characterised by a basic amount of openness and trust. In that sense, direct voice may be considered a good management practice in itself. By contrast, as explained above, the presence of solely representative arrangements for voice could be characteristic of poor social dialogue contexts, where employers are mandated by law to have representative institutions, but are unwilling to engage in direct exchanges with workers. The presence of representative arrangements could also result from strained workers seeking representation to express their discontents, while benefiting from the legal protections attached to representative voice. Besides, Hammer and Avgar (2005[41]) suggest that when representative voice is born out of such discontent, it can lead management to adopt restrictive practices in response, increasing control and monitoring and therefore further diminishing workers' autonomy. These explanations are all consistent with the results in Figure 4.9 which show a negative correlation between the presence of representative-only institutions for voice and less autonomy in terms of freedom to set the order of tasks, to define the method of work or the pace of work.

Figure 4.9. Correlations between measures of workplace organisation and workers' voice arrangements

Percentage, employees aged 15-64, 2015



Note: Results are based on probit regressions including additional controls for age, education, gender, type of contract (permanent or temporary contract), occupation, job tenure, firm size, industry, sector (public and private) and country dummies. The chart reports marginal effects, i.e. percentage change in the outcome variable following a discrete change in the relevant explanatory variable from the base level (no workers' voice arrangements). For further details, see Annex Table 4.A.2. *,**,***: statistically significant at the 10%, 5%, and 1% level, respectively.
Source: OECD estimates based on the 6th European Working Conditions Survey (EWCS), 2015.

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Collective agreements as well as different forms of voice can also help accompanying the introduction of new technologies and ensuring that their deployment does not come at the expense of job quality for workers (see also Chapter 5). It can also help ensure that increased work intensity, for instance, is rewarded with higher wages or more time-off. Recent research in the British context (Bryson, Barth and Dale-Olsen, 2013[119]) indicates that the job-related anxiety that accompanies organisational change at work is ameliorated when employees work in a unionised workplace and are involved in the introduction of the changes.

Box 4.5. Collective bargaining, job quality and productivity: A case study of the implementation of the "world class manufacturing" method in the automotive sector

A safer and better quality of the working environment is a primary concern for workers. It is also a significant ingredient for firms' performance (Saint-Martin, Inanc and Prinz, 2018[2]). The implementation of a new form of work organisation in Fiat Chrysler Automobiles (FCA) plants in Italy and the United States provides an interesting example of why that is the case. In 2005, the Italian car manufacturer FIAT (later called FCA after it acquired Chrysler) adopted a new production model called World Class Manufacturing (WCM). This model was also reportedly implemented by other large international companies such as Royal Mail, Ariston, Unilever, Atlas Copco, and Barilla.

WCM is a methodology developed by Schnonberger (1986[120]) building on the Toyota Production System or "lean manufacturing", which focuses on eliminating waste and improving quality and safety in a systematic and organised way. The methodology is based on 10 pillars. The first one is focused on safety, with the goal of zero accidents and a stronger focus on ergonomics. Other pillars include cost deployment and people development. The WCM also gives more responsibility and autonomy to the workers by asking them to think about their own work and to provide suggestions. In the words of its creator "the old division of labour concept was to divide the job into narrow elements; the unskilled people could be hired off the street and learn an assembly job quickly with little training. The WCM concept calls for assemblers to learn multiple job skills, data collection duties, and diagnosis and problem solving talents, in brief: take the skill out of the job; develop the skills of the mind" (Schonberger, 1986, p. 38[120]). In WCM, workers are asked to play a more active role by providing feedbacks and suggestions related to work organisation and the experimentation of new methods. Moreover, the method aims at increasing job mobility to allow workers to change job and progress in their career.

A specificity of the implementation of WCM in FCA plants in the United States is that the United Auto Workers (UAW) union has been closely associated since the beginning to the deployment of the new method to help management get workers fully on-board and increase their active participation. At the local level, UAW has one representative per pillar working hand in hand with the management on its actual implementation. Moreover, UAW and FCA jointly run the UAW-Chrysler National Training Center. The latter is funded by FCA and governed by a board composed of four representatives of the union and four of the management. As part of the National Training Center, the World Class Manufacturing Academy (WCMA) in Warren, Michigan is tasked with training workers to WCM methods. According to FCA management, "the results that have been achieved in our plants could not have been realised without the support of our UAW partners. From the leadership to the shop floor, everyone has become an advocate of WCM and understands that it is critical to maintaining Chrysler Group's competitiveness into the future" (FCA, 2012[121]). According to UAW, "WCM has engaged and empowered our UAW-represented workforce by challenging them to become more involved in driving change within our plants. By embracing WCM, we can secure manufacturing jobs and additional investment in our plants" (FCA, 2012[121]). In Italy, the deployment of WCM was, and partly remains, more controversial: in 2010, it was a key part of the new agreement that Fiat asked unions to sign to secure the continuation of investments and production in Italian establishments together with new rules on overtime, breaks and unions' activities. This agreement was fiercely opposed by one of the three main unions, FIOM-CGIL, which considered it as a form of blackmail and still criticises the new working method as a form of work intensification without sufficient rewards for workers.

Proponents of WCM stress its role in increasing productivity and job quality. Opponents retort that increases in productivity are not sufficiently shared with workers. They also point that while physical stressors are reduced, mental stress has increased. A survey of almost 5 000 FCA workers (Campagna et al., 2015[122]) run by the Italian metalworker unions FIM-CISL, which signed the 2010 agreement,

showed that safety has increased, that the quality of production has increased and that workers feel more involved. Workers feel that a higher degree of intellectual involvement is required from them in their job. On the other hand, they also report that WCM has increased pace by cutting small breaks, and that work has become more stressful. Moreover, workers feel that the time to provide feedback is still limited and the rewards for the feedback are often only symbolic. One of the main requests that workers have is to ensure a better share of the productivity gains that derive from WCM, which partly stem from workers' suggestions and direct involvement. The results of another survey of workers in Italian FCA plants run by FIOM-CGIL (Bubbico and Di Nunzio, 2018[123]), which strongly opposed the 2010 agreement, stress more these negative aspects, underlying in particular the increase in workloads and pace and the fact that direct voice crowds out formal workers' representative bodies, weakening workers' bargaining power.

4.3.5. Workplace intimidation and discrimination

Workplace intimidation (also referred to as "workplace bullying") comprises situations where a worker is confronted with physical violence, threats, blackmail, or verbal abuse. Discrimination refers to the unjust or prejudicial treatment of different categories of people, on the grounds of one of their characteristics (gender, age, race, sexual orientation, religion, physical appearance, etc.)[30]. It can happen at any step of the career path, from job application to job loss and promotion opportunities. While the attention to workplace intimidation is relatively more recent, the causes, cost and measurement of discrimination in the workplace have been the subject of many studies and experiments – see Carcillo and Valfort (2018[124]) for a summary of the evidence.

Intimidation and discrimination are detrimental to workers mental and physical health and worsen the quality of the working environment. Discrimination, in particular, has been shown to increase the risk of depression (Noh and Kaspar, 2003[125]), hypertension (Williams and Mohammed, 2008[126]), cardiovascular disease (Lewis et al., 2006[127]), breast cancer (Oyo et al., 2003[128]), and to increase mortality (Barnes et al., 2008[129]).

According to a 2015 Eurobarometer survey, 19.8% of employees in the European Union declare having experienced at least one form of discrimination in that year (up from 14.8% in 2012) (European Commission, 2015[130]).[31] Age discrimination was the most prevalent form of discrimination (5%), followed by gender discrimination (4.6%), ethnic discrimination (3.5%), religion (2.4%), disability (1.9%), sexual orientation (1.3%), and gender identity (0.6%).[32] However, this ranking is different when considering the percentage of discriminated individuals in relevant groups at risk of discrimination: 30.7% of employees from ethnic minorities declare that they experienced discrimination, while 9.8% of workers under 30 and over 55 experienced age discrimination.

Intimidation appears to be more widespread. According to data from the 2015 wave of the European Working Conditions Survey, 12.5% of employees declare having experienced verbal abuse in that year, 9.2% had experienced threats and humiliating behaviours over the last month, 4.8% had been subjected to bullying/harassment in the last 12 months, 2.1% had experienced physical violence, 2.1% had received unwanted sexual attention over the last month and 1% had experienced sexual harassment in the last 12 months.

Legally prohibiting workplace intimidation and discrimination is an essential first step. Anti-discrimination law is framed by international conventions.[33] Legislation on violence and harassment at work is more recent. For instance, a specific ILO Convention (C-190) on the issue has been approved in July 2019. The Convention – which, in many OECD countries, adds some elements to already existing provisions – recognises that violence and harassment at work (defined as behaviours, practices or threats "that aim at, result in, or are likely to result in physical, psychological, sexual or economic harm") "can constitute a human rights violation or abuse" and is "incompatible with decent work". The new Convention sets a series

of standards to be implemented by member countries to better protect all workers, irrespective of their contractual status, including persons in training, interns and apprentices, workers whose employment has been terminated, volunteers, job seekers and job applicants. The Convention also extends anti-harassment policies beyond the premises of the office or the factory, to include work-related travels and social events and daily commutes.

Beyond legislations, however, ensuring that these laws are properly enforced through reporting, recording and sanctioning is crucial. In that regard, workers' representatives can play a key role by offering an on-site resource for a worker willing to report a case of intimidation or discrimination. According to Eurobarometer data (European Commission, 2015[130]), in 2015, 16.2% of employees who declared having experienced at least one form of discrimination in the last 12 months said that they would prefer to report their case to a trade union in case of discrimination (20.5% for gender discrimination, 18.2% for age discrimination and 17.7% for disability). 27.2% mentioned going to the police, 22% would turn to an equal opportunity organisation, and 6.5% do not know whom they would turn to. This latter statistic signal the existence of space for progression for workers' representatives to act as an efficient recourse for workers in these situations. According to Ouali (2013[131]), quoting survey research carried out between 2003 and 2005 in five European countries, the vast majority of racist incidents were not reported to union representatives for reasons ranging from fear of stigmatisation, fear of not being trusted, and fear that a legal procedure would not result in sanctions against perpetrators.

Historically, unions have not always been at the forefront of the fight against discrimination. Bargaining agendas used to centre on male-biased priorities (Tavora, 2012[132]) and in some cases, unions replicated the type of segregation prevalent in society and in most organisations.[34] Moreover, the issue of racism was also generally seen as something that happened outside the factory gates (Wrench, 2015[133]). In the 1960s and 1970s, American unions also tended to oppose migration, fearing that migrants would drag down the wages of native workers and increase unemployment (Jacobson and Geron, 2008[134]). Still in the early 1990s, the practical responses of several European trade unions to policies and codes against discrimination were found to be "minimal and lukewarm" (Eurofound, 1996[135]).

One source of tension is that acknowledging the disadvantage of certain groups of workers and drawing attention to differences among union members is at odds with the traditional strategy of building union strength by highlighting common collective interests and identity (Tavora, 2012[132]). Another difficulty lies in the transmission of anti-discrimination strategies decided at national level to practices at the local level (Ouali, 2013[131]; European Commission, 2006[136]).

Nonetheless, unions' stance on workplace discrimination and intimidation has noticeably changed in the last decades. In 1995, the European social partners signed the Joint Declaration on the Prevention of Racial Discrimination and Xenophobia and Promotion of Equal Treatment in the Workplace, which proposed a set of anti-discrimination measures in recruitment, selection, or training. This change reflected wider societal transformations, as well as the adoption of national and international legislations such as the European Union Racial Equality Directive adopted in 2000, and the Employment Equality Directive. These laws have increased trade unions' awareness and receptiveness of immigration and racial discrimination issues (Wrench, 2015[133]).[35] As the labour force has become more diverse, better taking into account the interest of a diverse workforce also became an essential element of union revitalisation strategies (Dickens, 1999[137]).

Since the adoption of that declaration, trade unions in Europe have developed various anti-discrimination initiatives. First, unions have started to change their structure, creating dedicated departments to conduct their equality agendas, appointing officers with specific discrimination portfolios, reserving seats to representatives of groups at risk of discrimination on union executive boards (European Commission, 2010[138]), or encouraging self-organisation of disadvantaged groups within their structures. For example, UNISON in the United Kingdom has been supporting black self-organisation (European Commission, 2006[136]). In Italy in 2003, the Confederazione Generale Italiana del Lavoro (CGIL) created a 'New Rights'

section aimed at coordinating efforts to better address issues linked to sexual orientation and gender identity. Unions have also invested in the creation of auditing mechanisms and monitoring tools on anti-discrimination issues. The British Trade Union Congress has introduced Equality Audits since 2001, in order to draw an accurate picture of the efforts undertaken on issues of discrimination at work, to measure progress and to identify remaining gaps. Unions affiliated to the TUC are audited and reports are published every two years. Unions are also conducting diversity training to raise awareness among their members.

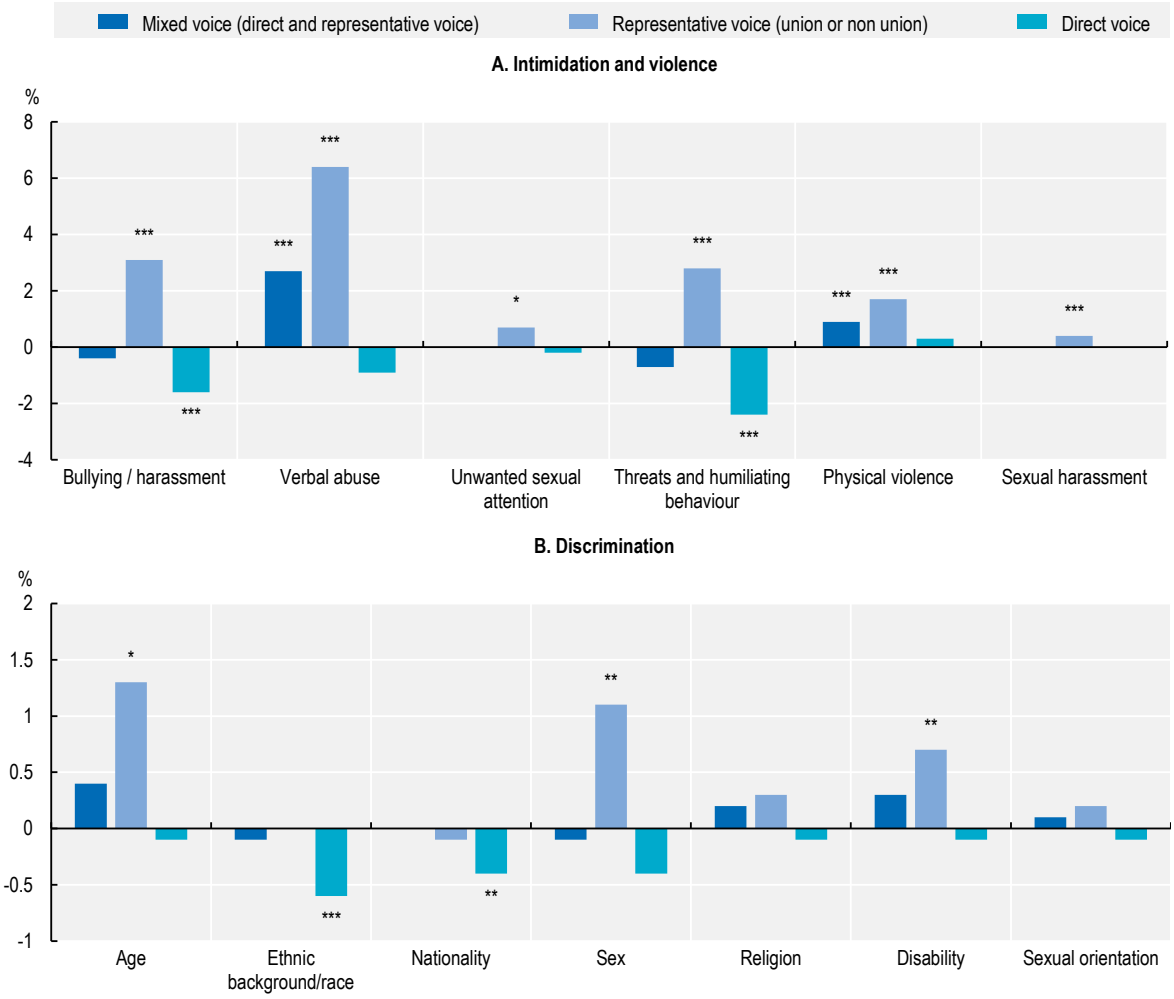
Second, policies mitigating discrimination and workplace harassment have become objects of collective bargaining and are now included in sectoral and firm-level collective agreements. For instance, around 30% of collective agreements in the retail and commerce sector in the European Union contain at least one clause on equal access to training, around 40% a clause on equal promotion opportunities, close to 50% a clause on equal pay and close to 80% a clause on non-discrimination (Besamusca, Kahancová and Tijdens, 2018[86]). Examples include clauses aimed at eliminating age bars or age-based criteria, annual leave agreements which acknowledge the needs of a diverse workforce (notably in terms of religious holiday), or collective agreements on diversity management (European Commission, 2010[138]). A 2003 national agreement in Belgium suggested a mechanism to facilitate the recruitment of young minority workers (Ouali, 2013[131]). In Lithuania, the Lietuvos profesinių sąjungų konfederacija (the Lithuanian Trade Union Confederation) (LPSK) led a campaign on the issue of age discrimination. This led to the formulation of a set of policy recommendations (including job protection for those coming up to retirement and paid time-off for retraining) being brought to the Tripartite Council in 2008, which was then implemented into collective agreements (European Commission, 2006[136]). Unions have also developed tools to negotiate anti-discrimination policies (such as the British TGWU's Negotiator's guide on Race Equality) (European Commission, 2006[136]).

Third, workers' voice mechanisms can also play a role in raising awareness about intimidation and discrimination and provide an on-site resource to address them. Workers' voice mechanisms can be direct or representative (and most often workplaces have mixed systems with both), and representative forms of voice can involve unions or not. A study in the United States showed that claims of racial and gender discrimination are less frequent in workplaces with clear channels for workers to voice their discontents, in particular when the race or gender of the supervisor is different from that of the worker (Bender, Heywood and Kidd, 2017[139]). Examples of union-led workplace initiatives to mitigate discrimination and intimidation include the provision or targeted training to groups disadvantaged on the labour market, e.g. ethnic minorities or LGBT workers (European Commission, 2006[136]), or the establishment of dedicated representatives (European Commission, 2010[138]). For instance the Österreichischer Gewerkschaftsbund (OEGB -–Austrian Federation of Trade Unions) has introduced workplace youth representatives, which role is to facilitate recruitment, to identify the needs of young members, and to influence company culture (European Commission, 2010[138]). While there are many examples of good practices such as this one, a 2006 European Commission report found the workplace-level response to anti-discrimination issues to be rather heterogeneous (European Commission, 2006[136]).

Figure 4.10 shows the correlations between various forms of intimidation and discrimination and various types of workers' voice using data from the European Working Conditions Survey. The picture emerging from this analysis is consistent with what has been found for the other dimensions of the quality of the working environment. In particular representative only forms of voice are associated with more intimidation and discrimination while mixed and direct only forms of voice tend to be associated with lower incidence of intimidation and discrimination, compared with the absence of workers' voice arrangements.

Figure 4.10. Correlations between measures of intimidation and discrimination and various forms of workers' voice arrangements

Percentage, employees aged 15-64, 2015



Note: Results are based on probit regressions including additional controls for age, education, gender, type of contract (permanent or temporary contract), occupation, job tenure, firm size, industry, sector (public and private) and country dummies. The chart reports marginal effects, i.e. percentage change in the outcome variable following a discrete change in the relevant explanatory variable from the base level (no workers' voice arrangements). For further details, see Annex Table 4.A.2. *,**,***: statistically significant at the 10%, 5%, and 1% level, respectively.
Source: OECD estimates based on the 6th European Working Conditions Survey (EWCS), 2015.

StatLink http://dx.doi.org/10.1787/888934027874

Higher incidence of intimidation and discrimination with representative only forms of voice are once again likely to reflect a selection effect and not a direct negative effect of representative bodies. Workers who feel intimidated and/or discriminated against may call on unions to set up a formal workers' representative body to defend themselves while workers who are not intimidated or discriminated may not feel the need. Moreover, the absence of direct forms of voice may signal the low willingness of employers to co-operate for a better working environment. In addition, the presence of representative bodies is likely to increase workers' awareness and knowledge of what constitutes harassment and discrimination and therefore to increase the reporting of intimidation and discrimination cases in the survey.

Beyond internal reorganisation, collective bargaining, and workers' voice, a fourth way in which unions intervene on these issues is through awareness-raising, government lobbying and legal action.

In terms of awareness-raising campaigns, European Commission (2010[138]) highlights trade unions' engagement with employers' organisations, NGOs, and community associations. Campaigns range from highlighting issues of enforcement to demanding new measures guaranteeing equality of treatment for e.g. ethnic and religious minority, or LGBT workers. In Italy, CGIL partnered with NGOs to respond to rising xenophobia and homophobia in Italian society, raising awareness though campaigns such as the"'Same blood, same rights" campaigns highlighting the unfair treatment of migrant workers.

Unions are also invested in government lobbying in the objective of promoting legislation against intimidation and discrimination. For instance, union lobbying through the European Trade Union Confederation was important in securing the 2000 Equal Treatment Directive (European Commission, 2006[136]). The Lithuanian Trade Union Confederation policy recommendations to address age discrimination mentioned above were ultimately brought into labour law (European Commission, 2010[138]). In Austria, youth employment laws were modified and protective regulations protective regulations related to probation and dismissal expanded to young workers following the establishment of youth representatives.

Finally, unions are sometimes engaging in legal actions to combat workplace discrimination. For instance, the Icelandic confederation of Labour (ASÍ) launched a campaign in 2005 aimed at defending the principle of equal treatment workers, including migrant workers, who were often paid less and worked without social insurance in construction and food industries. Where they could not negotiate a solution with employers, ASÍ took legal action against the companies (European Commission, 2010[138]). In Belgium, the Fédération générale du travail de Belgique (FGTB) and the NGOs CEOOR (Centre for Equal Opportunities and Opposition to Racism) and Kif-Kif filed a joint complaint against the temporary work agency Adecco, which was condemned in 2011 for having used racially oriented labels to distinguish between candidates (Ouali, 2013[131]). In Italy, CGIL initiated legal action against the government for failing to transpose effectively the European Union Equality directives.

Conclusions

This chapter has shed new light on the role that collective bargaining and workers' voice play for the quality of the working environment in OECD countries. Good working conditions are a primary concern for workers. They also matter for employers as low quality jobs have been found to be associated with higher absenteeism, more health problems, increased labour turnover and, in the end, lower firm performance. Improving working environments is, therefore, an area where mutually beneficial solutions can be (and are already being) found through dialogue and negotiations between employers, unions and workers' representatives.

In all OECD countries, basic standards with respect to safety and health provisions or working time are set down by legislation. However, unions, workers' representatives and employers also shape working conditions in a variety of ways. First they can negotiate higher standards (or, in some specific cases, derogations) in sectoral or firm-level collective agreements. Second, they can negotiate provisions in areas other than those covered by the law, such as training or management practices. Third, they can change working conditions through regular exchanges and negotiations at workplace level, via representative (e.g. unions or works councils) or direct (e.g. town hall meetings) voice arrangements. Fourth, social partners affect the quality of the working environment through lobbying and negotiating legislative changes with governments.

Data on the quality of the working environment and collective bargaining are limited and do not allow causal analyses to be carried out across OECD countries. Some bargaining systems appear to perform better in terms of the quality of the working environment, which is on average higher in countries with well-organised social partners and a large coverage of collective agreements – where the number of job resources available to workers (e.g. autonomy, training and flexibility of the working time), in particular, is higher. When considering the role of workers' voice, the chapter has shown that the existence of direct forms of workers' voice and of mixed forms of voice are both correlated with a higher quality of the working environment. By contrast, the presence of workers' representatives in firms where there are no parallel means of direct exchange between workers and managers is correlated with a lower quality of the working environment (compared with firms with no workers' voice arrangements at all). These results are mere correlations and the data do not allow causal links to be identified. This chapter has suggested mechanisms that could plausibly explain these results, namely that strained workers and non-cooperative employers are both likely to self-select into these purely representative forms of voice.

The chapter has also provided a detailed analysis with several country examples of the role that collective bargaining and different forms of workers' voice arrangements play in setting standards in occupational safety and health, working time, training and re-skilling policies, management practices, and the prevention of workplace intimidation and discrimination. The implementation of high standards of safety and health provisions as well as training or management practices remains more challenging in small and medium-sized enterprises and in sectors with a relatively high share of non-standard employment. However, the chapter includes examples of how social partners and policymakers in OECD countries have tried to extend best practices across all types of firms. This could inspire similar initiatives in other contexts.

References

Adams, R. (2008), "From statutory right to human right: the evolution and current status of collective bargaining", *Just Labour: A Canadian Journal of Work and Society*, Vol. 12, pp. 48-67, http://www.justlabour.yorku.ca/volume12/pdfs/05_adams_press.pdf (accessed on 16 October 2019). [76]

Aidt, T. and Z. Tzannatos (2008), "Trade unions, collective bargaining and macroeconomic performance: a review", *Industrial Relations Journal*, Vol. 39/4, pp. 258-295, http://dx.doi.org/10.1111/j.1468-2338.2008.00488.x. [33]

Amable, B. (2003), *The Diversity of Modern Capitalism*, Oxford University Press, http://dx.doi.org/10.1093/019926113x.001.0001. [142]

Amossé, T. et al. (2012), *Les accidents du travail et problèmes de santé liés au travail dans l'enquête SIP. (In)visibilités et inscriptions dans les trajectoires professionnelles*, https://halshs.archives-ouvertes.fr/halshs-00979095 (accessed on 28 May 2019). [78]

Appelbaum, E. et al. (2000), *Manufacturing Advantage: Why High-Performance Work Systems Pay Off*, ILR Press, Ithaca, NY. [111]

Askenazy, P. and J. Forth (2016), "Work Organisation and Human Resource Management: Does Context Matter?", in Amossé, T. et al. (eds.), *Comparative Workplace Employment Relations*, Palgrave Macmillan UK, London, http://dx.doi.org/10.1057/978-1-137-57419-0_5. [116]

Autor, D. (2003), "Outsourcing at Will: The Contribution of Unjust Dismissal Doctrine to the Growth of Employment Outsourcing", *Journal of Labor Economics*, Vol. 21/1, pp. 1-42, https://doi.org/10.1086/344122. [27]

Bakker, A. and E. Demerouti (2007), "The Job Demands-Resources model: state of the art", *Journal of Managerial Psychology*, Vol. 22/3, pp. 309-328, http://dx.doi.org/10.1108/02683940710733115. [50]

Barnes, L. et al. (2008), "Perceived Discrimination and Mortality in a Population-Based Study of Older Adults", *American Journal of Public Health*, Vol. 98/7, pp. 1241-1247, http://dx.doi.org/10.2105/ajph.2007.114397. [129]

Barrios, J., Y. Hochberg and H. Yi (2018), "The Cost of Convenience: Ridesharing and Traffic Fatalities", http://dx.doi.org/10.2139/ssrn.3271975. [80]

Barron, J., S. Fuess and M. Loewenstein (1987), "Further Analysis of the Effect of Unions on Training", *Journal of Political Economy*, Vol. 95/3, pp. 632-640, http://dx.doi.org/10.1086/261475. [96]

Barth, P. and J. Mendeloff (1980), "Regulating Safety: An Economic and Political Analysis of Occupational Safety and Health Policy.", *Industrial and Labor Relations Review*, Vol. 34/1, p. 151, http://dx.doi.org/10.2307/2522653. [74]

Bassanini, A. and E. Caroli (2015), "Is Work Bad for Health? The Role of Constraint versus Choice", *Annals of Economics and Statistics* 119/120, p. 13, http://dx.doi.org/10.15609/annaeconstat2009.119-120.13. [147]

Bassanini, A. and R. Duval (2006), "Employment Patterns in OECD Countries: Reassessing the Role of Policies and Institutions", *Social, Employment and Migration Working Papers*, No. 35, OECD, https://doi.org/10.1787/702031136412 (accessed on 31 January 2018). [35]

Bender, K., J. Heywood and M. Kidd (2017), "Claims of Employment Discrimination and Worker Voice", *Discussion Paper in Economics*, No. 17-2, University of Aberdeeen. [139]

Bender, K. and P. Sloane (1998), "Job Satisfaction, Trade Unions, and Exit-Voice Revisited", *ILR Review*, Vol. 51/2, pp. 222-240, http://dx.doi.org/10.1177/001979399805100204. [45]

Benjamin, D. et al. (2012), *Labour market economics : theory, evidence, and policy in Canada*, McGraw-Hill Ryerson, https://www.scribd.com/document/328419165/labour-market-economics-7th-canadian-edition (accessed on 16 October 2019). [9]

Bernard, E. (1995), "Canada: Joint Committees on Occupational Health and Safety", in Rogers, J. and W. Streeck (eds.), *Works Councils: Consultation, Representation, and Cooperation in Industrial Relations*, University of Chicago Press, Chicago. [64]

Bertola, G. (1999), "Microeconomic perspectives on aggregate labor markets", in Ashenfelter, O. (ed.), *Handbook of Labor Economics*, Elsevier, https://econpapers.repec.org/bookchap/eeelabchp/3-45.htm (accessed on 7 February 2018). [23]

Besamusca, J., M. Kahancová and K. Tijdens (2018), *Contents of Collective Bargaining Agreements in the Commerce Sector*, Barcom, Amsterdam. [86]

Blanchflower, D. and R. Freeman (1993), "Did the Thatcher Reforms Change British Labour Performance?", *NBER Working Papers*, https://ideas.repec.org/p/nbr/nberwo/4384.html (accessed on 15 January 2018). [11]

Blau, F. et al. (1999), "Institutions and laws in the labor market", in Ashenfelter, O. and D. Card (eds.), *Handbook of Labor Economics*, Elsevier, https://econpapers.repec.org/bookchap/eeelabchp/3-25.htm (accessed on 26 January 2018). [12]

Bloom, N. et al. (2014), "The new empirical economics of management", *Journal of the European Economic Association*, Vol. 12/4, pp. 835-876, http://dx.doi.org/10.1111/jeea.12094. [110]

Bloom, N. and J. Van Reenen (2007), "Measuring and Explaining Management Practices Across Firms and Countries", *The Quarterly Journal of Economics*, Vol. 122/4, pp. 1351-1408, http://dx.doi.org/10.1162/qjec.2007.122.4.1351. [109]

Boeri, T., A. Brugiavini and L. Calmfors (2001), *The Role of Unions in the Twenty-first Century*, Oxford University Press, http://dx.doi.org/10.1093/0199246580.001.0001. [37]

Booth, A., M. Francesconi and G. Zoega (2003), "Unions, Work-Related Training, and Wages: Evidence for British Men", *ILR Review*, Vol. 57/1, pp. 68-91, http://dx.doi.org/10.1177/001979390305700104. [99]

Bourdieu, J. and T. Breda (2017), "Under-Paid Shop Stewards: A Case of Strategic Discrimination?", *Travail et emploi* Hors-série, pp. 5-30, http://dx.doi.org/10.4000/travailemploi.7613. [149]

Brown, W. et al. (eds.) (2009), *The evolution of the modern workplace*, Cambridge University Press, Cambridge. [114]

Bryson, Alex; Green, Francis; (2015), "Unions and Job Quality", in *Unequal Britain at Work*, Oxford University Press. [58]

Bryson, A. (2014), "Union wage premium", *IZA World of Labor*, Vol. 35, http://dx.doi.org/10.15185/izawol.35. [8]

Bryson, A., E. Barth and H. Dale-Olsen (2013), "The Effects of Organizational Change on Worker Well-Being and the Moderating Role of Trade Unions", *ILR Review*, Vol. 66/4, pp. 989-1011, http://dx.doi.org/10.1177/001979391306600410. [119]

Bryson, A., L. Cappellari and C. Lucifora (2004), "Does Union Membership Really Reduce Job Satisfaction?", *British Journal of Industrial Relations*, Vol. 42/3, pp. 439-459, http://dx.doi.org/10.1111/j.1467-8543.2004.00324.x. [46]

Bryson, A. and J. Forth (2017), *The added value of trade unions. A review for the TUC of existing research*, Trade Union Congress, London. [62]

Bryson, A., J. Forth and A. George (2012), *Workplace social dialogue in Europe: An analysis of the European Company Survey 2009*, Eurofound, Dublin. [40]

Bryson, A. and R. Freeman (2013), "Employee Perceptions of Working Conditions and the Desire for Worker Representation in Britain and the US", *Journal of Labor Research*, Vol. 34/1, pp. 1-29, http://dx.doi.org/10.1007/s12122-012-9152-y. [43]

Bryson, A. and F. Green (2015), "Unions and job quality", in *Unequal Britain At Work. The Evolution and Distribution of Job Quality*, https://iris.ucl.ac.uk/iris/publication/1096181/1 (accessed on 8 January 2018). [44]

Bryson, A. and M. White (2016), "Not so dissatisfied after all? The impact of union coverage on job satisfaction", *Oxford Economic Papers*, Vol. 68/4, pp. 898-919, http://dx.doi.org/10.1093/oep/gpw018. [47]

Bryson, A. et al. (2013), "The Comparative Advantage of Non-Union Voice in Britain, 1980-2004", *Industrial Relations: A Journal of Economy and Society*, Vol. 52, pp. 194-220, http://dx.doi.org/10.1111/irel.12001. [151]

Bubbico, D. and D. Di Nunzio (2018), *Il mestiere dell'auto*, Meta edizioni, Roma. [123]

Budd, J. and K. Mumford (2004), "Trade unions and family-friendly policies in Britain", *Industrial and Labor Relations Review*, Vol. 57/2. [92]

Cahuc, P., S. Carcillo and A. Zylberberg (2014), *Labor economics*, The MIT Press, Cambridge, MA. [25]

Campagna, L. et al. (2015), *Le persone e la fabbrica: una ricerca sugli operai Fiat Chrysler in Italia*, Guerini Next, Milano. [122]

Carcillo, S. and M. Valfort (2018), *Les discriminations au travail : femmes, ethnicité, religion, âge, apparence, LGBT*, Presses de Sciences Po, Paris. [124]

Card, D., T. Lemieux and W. Riddell (2004), "Unions and wage inequality", *Journal of Labor Research*, Vol. 25/4, pp. 519-559, http://dx.doi.org/10.1007/s12122-004-1011-z. [13]

Cardoso, A. and P. Portugal (2005), "Contractual Wages and the Wage Cushion under Different Bargaining Settings", *Journal of Labor Economics*, Vol. 23/4, pp. 875-902, http://dx.doi.org/10.1086/491608. [18]

Cazes, S., A. Hijzen and A. Saint-Martin (2015), "Measuring and Assessing Job Quality: The OECD Job Quality Framework", *OECD Social, Employment and Migration Working Papers*, No. 174, OECD Publishing, Paris, https://dx.doi.org/10.1787/5jrp02kjw1mr-en. [49]

Chamboredon, H. and C. Daniel (2018), "Les premiers accords de regroupement d'instances de représentation du personnel suite à la loi du 17 août 2015", No. 225, DARES, http://www.epsilon.insee.fr/jspui/bitstream/1/81857/1/DE_225.pdf (accessed on 5 September 2019). [82]

De Spiegelaere, S. et al. (2019), "Democracy at work", in *Benchmarking Working Europe 2019*, European Trade Union Institute (ETUI), Brussels, https://www.etui.org/Publications2/Books/Benchmarking-Working-Europe-2019 (accessed on 8 October 2019). [63]

Dell'Aringa, C. and C. Lucifora (1994), "Collective bargaining and relative earnings in Italy", *European Journal of Political Economy*, Vol. 10/4, pp. 727-747, http://dx.doi.org/10.1016/0176-2680(94)90035-3. [15]

Dex, S. and C. Smith (2002), *The nature and pattern of family-friendly employment policies in Britain*, Policy Press. [91]

Dickens, L. (1999), "Beyond the business case: a three-pronged approach to equality action", *Human Resource Management Journal*, Vol. 9/1, pp. 9-19, http://dx.doi.org/10.1111/j.1748-8583.1999.tb00185.x. [137]

DiNardo, J. and D. Lee (2004), "Economic Impacts of New Unionization on Private Sector Employers: 1984-2001", *The Quarterly Journal of Economics*, Vol. 119/4, pp. 1383-1441, http://dx.doi.org/10.1162/0033553042476189. [14]

Donado, A. (2015), "Why Do Unionized Workers Have More Nonfatal Occupational Injuries?", *ILR Review*, Vol. 68/1, pp. 153-183, http://dx.doi.org/10.1177/0019793914556244. [71]

Donado, A. and K. Wälde (2012), "How trade unions increase welfare", *The Economic Journal*, Vol. 122/563, pp. 990-1009, http://dx.doi.org/10.1111/j.1468-0297.2012.02513.x. [75]

Donaghey, J. et al. (2013), *National practices of information and consultation in Europe*, Eurofound, Dublin, https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef1329en.pdf (accessed on 14 October 2019). [153]

Duncan, G. and F. Stafford (1980), "Do Union Members Receive Compensating Wage Differentials?", *American Economic Review*, Vol. 70, pp. 355-371. [95]

Duran, J. and A. Corral (2016), *Employee involvement and participation at work: Recent research and policy developments revisited*, Eurofound, https://www.eurofound.europa.eu/publications/report/2016/eu-member-states/employee-involvement-and-participation-at-work-recent-research-and-policy-developments-revisited (accessed on 11 October 2019). [152]

Eaton, A. and T. Nocerino (2000), "The Effectiveness of Health and Safety Committees: Results of a Survey of Public-Sector Workplaces The Effectiveness of Health and Safety Committees", *Industrial Relations: A Journal of Economy and Society*, Vol. 39/2, pp. 265-290, http://dx.doi.org/10.1111/0019-8676.00166. [72]

Elmeskov, J., J. Martin and S. Scarpetta (1998), "Key Lessons for Labour Market Reforms: Evidence from OECD Countries' Experience", *Swedish Economic Policy Review*, Vol. 5/2, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=181273 (accessed on 15 January 2018). [34]

ETUI (2015), *Board-level Representation - Germany*, https://www.worker-participation.eu/National-Industrial-Relations/Countries/Germany/Board-level-Representation (accessed on 10 October 2019). [118]

Eurofound (2018), *Denmark: Social partners welcome new tripartite agreement on adult and continuing education*, https://www.eurofound.europa.eu/publications/article/2018/denmark-social-partners-welcome-new-tripartite-agreement-on-adult-and-continuing-education (accessed on 4 October 2019). [104]

Eurofound (2017), *Sixth European Working Conditions Survey – Overview report (2017 update)*, Publications Office of the European Union, Luxembourg. [3]

Eurofound (2016), *Working time developments in the 21st century: Work duration and its regulation in the EU European Foundation for the Improvement of Living and Working Conditions*, Publications Office of the European Union, Luxembourg. [85]

Eurofound (2015), *Pay in Europe in different wage-bargaining regimes*, Publications Office of the European Union, Luxembourg. [19]

Eurofound (2012), *Health and well-being at work. A report based on the fifth European Working Conditions Survey*, Publication Office of the European Union, Luxembourg. [6]

Eurofound (2011), *Employee representation at establishment level in Europe*, Publications Office of the EU, Luxembourg. [69]

Eurofound (1996), *Preventing racism at the workplace. A report on 16 European countries*, Publication Office of the European Union, Luxembourg. [135]

European Commission (2019), "Sustainability and governance: the role of social dialogue", in *Employment and Social Developments in Europe*, Publications Office of the European Union, Luxembourg. [105]

European Commission (2018), *Employment and Social Developments in Europe 2018*, Publications Office of the European Union, Luxembourg. [87]

European Commission (2015), *Eurobarometer 83.4: Climate Change, Biodiversity, and Discrimination*, European Commission, Brussels. [130]

European Commission (2010), *Trade union practices anti-discrimination and diversity*. [138]

European Commission (2006), *Racial and ethnic minorities, immigration and the role of trade unions in combating discrimination and xenophobia, in encouraging participation and in securing social inclusion and citizenship*. [136]

FCA (2012), *Chrysler Group LLC Opens State-of-the-Art World Class Manufacturing Academy in Warren, Mich.*, http://media.fcanorthamerica.com/newsrelease.do?id=11917&mid= (accessed on 17 May 2019). [121]

Felstead, A., D. Gallie and F. Green (eds.) (2015), *Policies for Intrinsic Job Quality*, Oxford University Press. [56]

Freeman, R. (1988), "Union density and economic performance: An analysis of U.S. States", *European Economic Review*, Vol. 32/2-3, pp. 707-716, http://dx.doi.org/10.1016/0014-2921(88)90219-X. [29]

Freeman, R. and J. Medoff (1984), *What do unions do?*, Basic Books, New York. [1]

Gallie, D. (2007), "Production Regimes and the Quality of Employment in Europe", *Annual Review of Sociology*, Vol. 33/1, pp. 85-104, http://dx.doi.org/10.1146/annurev.soc.33.040406.131724. [141]

Gallie, D. and Y. Zhou (2013), *Work organisation and employee involvement in Europe*, Eurofound, https://www.eurofound.europa.eu/publications/report/2013/working-conditions/work-organisation-and-employee-involvement-in-europe (accessed on 11 October 2019). [150]

Gollac, M. and M. Bodier (2011), *Mesurer les facteurs psychosociaux de risque au travail pour les maîtriser. Rapport du Collège d'expertise sur le suivi des risques psychosociaux au travail, faisant suite à la demande du Ministre du travail, de l'emploi et de la santé*, Ministère du travail, de l'emploi et de la santé,. [51]

Gomez, R. and D. Lamb (2016), "Unions and Traditionally Disadvantaged Workers: Evidence from Union Wage Premiums in Canada 2000 to 2012", *International Journal of Canadian Studies*, Vol. 5, pp. 1-21. [10]

Gramm, C. and J. Schnell (2001), "The use of flexible staffing arrangements in core production jobs", *Industrial and Labor Relations Review*, Vol. 54/2, pp. 245-258, http://journals.sagepub.com/doi/pdf/10.1177/001979390105400203 (accessed on 21 February 2018). [26]

Green, F. (1993), "The impact of trade union membership on training in Britain", *Applied Economics*, Vol. 25/8, pp. 1033-1043, http://dx.doi.org/10.1080/00036849300000083. [97]

Gunderson, M. (2011), "Impact of Sector Councils: A Canadian Institution", *Journal of Labor Research*, Vol. 32/4, pp. 414-426, http://dx.doi.org/10.1007/s12122-011-9119-4. [102]

Gunderson, M. and A. Sharpe (eds.) (1998), *Forging Business-Labour Partnerships*, University of Toronto Press, Toronto. [103]

Hammer, T. and A. Avgar (2005), "The impact of unions on job satisfaction, organizational commitment, and turnover", *Journal of Labor Research*, Vol. 26/2, pp. 241–266. [41]

Hartog, J., E. Leuven and C. Teulings (2002), "Wages and the bargaining regime in a corporatist setting: the Netherlands", *European Journal of Political Economy*, Vol. 18/2, pp. 317-331, http://dx.doi.org/10.1016/S0176-2680(02)00083-6. [16]

Hirschman, A. (1963), *Exit, voice, and loyalty : responses to decline in firms, organizations, and states*, Harvard University Press. [38]

Holland, P. et al. (2011), "Employee voice and job satisfaction in Australia: The centrality of direct voice", *Human Resource Management*, Vol. 50/1, pp. 95-111, http://dx.doi.org/10.1002/hrm.20406. [55]

Holman, D. (2012), "Job types and job quality in Europe", *Human Relations*, Vol. 66/4, pp. 475-502, http://dx.doi.org/10.1177/0018726712456407. [143]

Hoque, K. et al. (2016), "Union representation, collective voice and job quality: An analysis of a survey of union members in the UK finance sector", *Economic and Industrial Democracy*, Vol. 38/1, pp. 27-50, http://dx.doi.org/10.1177/0143831x14555707. [57]

Ibsen, C. and M. Keune (2018), "Organised Decentralisation of Collective Bargaining : Case studies of Germany, Netherlands and Denmark", *OECD Social, Employment and Migration Working Papers*, No. 217, OECD Publishing, Paris, https://dx.doi.org/10.1787/f0394ef5-en. [88]

ILO (2012), *Decent work indicators: Concepts and Definitions*, International Labor Organization, Geneva. [5]

ILO (2006), *ILO calls for strengthening labour inspection worldwide*, https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_077633/lang--en/index.htm#1 (accessed on 15 July 2019). [146]

Jacobson, R. and K. Geron (2008), "Unions and the Politics of Immigration", *Socialism and Democracy*, Vol. 22/3, pp. 105-122, http://dx.doi.org/10.1080/08854300802361620. [134]

Johnson, J. and E. Hall (1988), "Job strain, work place social support, and cardiovascular disease : a cross-sectional study of a random sample of the Swedish working population", *American Journal of Public Health*, Vol. 78, pp. 1336-1342. [145]

Johnson, J., E. Hall and T. Theorell (1989), "Combined effects of job strain and social isolation on cardiovascular disease morbidity and mortality in a random sample of the Swedish male working population", *Scandinavian Journal of Work , Environment and Health*, Vol. 15, pp. 271-279. [154]

Karasek, R. (1979), "Job Demands, Job Decision Latitude, and Mental Strain: Implications for Job Redesign", *Administrative Science Quarterly*, Vol. 24/2, p. 285, http://dx.doi.org/10.2307/2392498. [52]

Kochan, T. (1980), "Collective bargaining and organizational behavior research", *Research in organizational behavior*, Vol. 2, pp. 129-176. [113]

Laroche, P. (2016), "A Meta-Analysis of the Union-Job Satisfaction Relationship", *British Journal of Industrial Relations*, Vol. 54/4, pp. 709-741, http://dx.doi.org/10.1111/bjir.12193. [42]

Leontief, W. (1946), "Wages, Profit and Prices", *The Quarterly Journal of Economics*, Vol. 61/1, p. 26, http://dx.doi.org/10.2307/1882402. [20]

Lepinteur, A. (2019), "The shorter workweek and worker wellbeing: Evidence from Portugal and France", *Labour Economics*, Vol. 58, pp. 204-220, http://dx.doi.org/10.1016/j.labeco.2018.05.010. [93]

Lewis, T. et al. (2006), "Chronic Exposure to Everyday Discrimination and Coronary Artery Calcification in African-American Women: The SWAN Heart Study", *Psychosomatic Medicine*, Vol. 68/3, pp. 362-368, http://dx.doi.org/10.1097/01.psy.0000221360.94700.16. [127]

Li, L., S. Rohlin and P. Singleton (2017), "Labor Unions and Occupational Safety: Event-Study Analysis Using Union Elections", *Center for Policy Research*, https://surface.syr.edu/cpr/237 (accessed on 5 December 2018). [70]

Lindbeck, A. and D. Snower (1986), "Wage Setting, Unemployment, and Insider-Outsider Relations", *American Economic Review*, Vol. 76/2, pp. 235-239, http://www.jstor.org/stable/1818771. [22]

Lynch, L. (1994), *Training and the Private Sector: International Comparisons*, Chicago University Press, Chicago. [98]

Machin, S. and S. Wadhwani (1991), "The Effects of Unions on Organisational Change and Employment", *The Economic Journal*, Vol. 101/407, p. 835, http://dx.doi.org/10.2307/2233858. [115]

McDonald, I. and R. Solow (1981), "Wage Bargaining and Employment", *The American Economic Review*, Vol. 71/5, pp. 896-908, http://www.jstor.org/stable/1803472. [24]

Menéndez, M. et al. (2009), *The impact of safety representatives on occupational health : a European perspective (The EPSARE project)*, ETUI, https://www.etui.org/Publications2/Reports/The-impact-of-safety-representatives-on-occupational-health (accessed on 27 May 2019). [67]

Milgate, N., E. Innes and K. O'Loughlin (2002), "Examining the effectiveness of health and safety committees and representatives: A review", *Work*, Vol. 19/3, pp. 281-290. [65]

Morantz, A. (2009), *The Elusive Union Safety Effect:Towards a New Empirical Research Agenda*, https://law.stanford.edu/publications/the-elusive-union-safety-effecttowards-a-new-empirical-research-agenda/ (accessed on 27 May 2019). [73]

Nickell, S. (1997), "Unemployment and Labor Market Rigidities: Europe versus North America", *Journal of Economic Perspectives*, Vol. 11/3, pp. 55-74, http://dx.doi.org/10.1257/jep.11.3.55. [30]

Nickell, S. and R. Layard (1999), "Labor market institutions and economic performance", in *Handbook of Labor Economics*, Elsevier, http://dx.doi.org/10.1016/S1573-4463(99)30037-7. [31]

Noh, S. and V. Kaspar (2003), "Perceived Discrimination and Depression: Moderating Effects of Coping, Acculturation, and Ethnic Support", *American Journal of Public Health*, Vol. 93/2, pp. 232-238. [125]

OECD (2019), *Adult Learning in Italy: What Role for Training Funds?*, Getting Skills Right, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264311978-en. [108]

OECD (2019), *Getting Skills Right: Making adult learning work in social partnership*, OECD Publishing, Paris, http://www.oecd.org/employment/emp/adult-learning-work-in-social-partnership-2019.pdf. [100]

OECD (2019), "Making adult learning systems future-ready for all", in *OECD Employment Outlook 2019: The Future of Work*, OECD Publishing, Paris, https://dx.doi.org/10.1787/bb84f968-en. [94]

OECD (2019), *OECD Skills Strategy 2019: Skills to Shape a Better Future*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264313835-en. [101]

OECD (2018), *Good Jobs for All in a Changing World of Work: The OECD Jobs Strategy*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264308817-en. [28]

OECD (2017), "Labour market resilience: The role of structural and macroeconomic policies", in *OECD Employment Outlook 2017*, OECD Publishing, Paris, https://dx.doi.org/10.1787/empl_outlook-2017-6-en. [36]

OECD (2017), *OECD Guidelines on Measuring the Quality of the Working Environment*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264278240-en. [48]

OECD (2016), "Skills use at work: Why does it matter and what influences it?", in *OECD Employment Outlook 2016*, OECD Publishing, Paris, https://dx.doi.org/10.1787/empl_outlook-2016-6-en. [140]

OECD (2014), *OECD Employment Outlook 2014*, OECD Publishing, Paris, https://dx.doi.org/10.1787/empl_outlook-2014-en. [4]

Ouali, N. (2013), *Racism and discrimination at work: a challenge for European trade unions*. [131]

Oyo, N. et al. (2003), "Experiences of racist events are associated with negative health consequences for african american women", *Journal of The National Medical Association*, Vol. 95/6, pp. 450-460. [128]

Ross, A. (1953), *Trade Union Wage Policy*, University of California Press, Berkeley, CA. [39]

Rycx, F. (2003), "Industry wage differentials and the bargaining regime in a corporatist country", *International Journal of Manpower*, Vol. 24/4, pp. 347-366, http://dx.doi.org/10.1108/01437720310485898. [17]

Saint-Martin, A., H. Inanc and C. Prinz (2018), "Job Quality, Health and Productivity: An evidence-based framework for analysis", *OECD Social, Employment and Migration Working Papers*, No. 221, OECD Publishing, Paris, https://dx.doi.org/10.1787/a8c84d91-en. [2]

Saint-Paul, G. (1996), *Dual labor markets : a macroeconomic perspective*, MIT Press, https://mitpress.mit.edu/books/dual-labor-markets (accessed on 7 February 2018). [21]

Scarpetta, S. (1996), "Assessing the role of labour market policies and institutional settings on unemployment: a cross-country study", *OECD Economic Studies*, No. 26, https://www.oecd.org/eco/growth/2502834.pdf (accessed on 15 January 2018). [32]

Schaufeli, W. and T. Taris (2014), "A Critical Review of the Job Demands-Resources Model: Implications for Improving Work and Health", in *Bridging Occupational, Organizational and Public Health*, Springer Netherlands, Dordrecht, http://dx.doi.org/10.1007/978-94-007-5640-3_4. [54]

Schonberger, R. (1986), *World Class Manufacturing: The Lessons of Simplicity Applied*, Free Press, New York. [120]

Schulten, T. et al. (2019), *Collective bargaining report 2018: Large pay rises and more employee choice on working hours*, Wirtschafts- und Sozialwissenschaftliches Institut (WSI), Düsseldorf, https://www.boeckler.de/pdf/p_ta_jb_2018_english.pdf. [89]

Siegrist, J. (1996), “Adverse health effects of high-effort/low-reward conditions.”, *Journal of Occupational Health Psychology*, Vol. 1/1, pp. 27-41, http://dx.doi.org/10.1037/1076-8998.1.1.27. [53]

Slichter, S., J. Healy and R. Livernash (1960), *The impact of collective bargaining on management*, Brookings Institution, Washington. [112]

Stiglitz, J., A. Sen and J. Fitoussi (2009), *Rapport de la Commission sur la mesure des performances économiques et du progrès social*, http://www.stiglitz-sen-fitoussi.fr (accessed on 11 July 2019). [144]

Stuart, M. et al. (2016), *Evaluation of the Union Learning Fund Rounds 15-16 and Support Role of Unionlearn*, Leeds University Business School, Leeds, https://www.unionlearn.org.uk/sites/default/files/publication/ULF%20Eval%201516%20FINAL%20REPORT.pdf. [106]

Stuart, M., D. Valizade and I. Bessa (2015), “Skills and training: the union advantage.”*, Research paper*, No. 21, Centre for Employment Relations Innovation and Change Leeds University Business School, Leeds. [107]

Tavora, I. (2012), *Trade unions and gender equality in the workplace: case-based evidence from the UK*. [132]

UNECE (2015), *Handbook on Measuring Quality of Employment*, United Nations Economic Commission for Europe, Geneva. [7]

Valfort, M. (2017), “LGBTI in OECD Countries: A Review”*, OECD Social, Employment and Migration Working Papers*, No. 198, OECD Publishing, Paris, https://dx.doi.org/10.1787/d5d49711-en. [148]

Veliziotis, M. (2010), “Trade unions and unpaid overtime in Britain”*, ISER Working Paper Series*. [90]

Vogel, L. (2015), “Les instances représentatives du personnel et leur actions en matière de prévention des risques professionnels en Europe”, https://difusion.ulb.ac.be/vufind/Record/ULB-DIPOT:oai:dipot.ulb.ac.be:2013/274913/Details (accessed on 5 September 2019). [83]

Walters, D. (2017), *An Inspector Calls? Achieving regulatory compliance on OHS in times of change*, Tööinspektsioon, Tallinn, http://ti.ee/fileadmin/user_upload/failid/dokumendid/Meedia_ja_statistika/Teavitustegevus/SLIC/David_Walters.pdf (accessed on 2 December 2018). [79]

Walters, D. and T. Nichols (2009), *Workplace health and safety : international perspectives on worker representation*, Palgrave Macmillan. [68]

Walters, D. and E. Wadsworth (2017), *Worker participation in the management of occupational safety and health: qualitative evidence from ESENER-2*, European Risk Observatory, http://dx.doi.org/10.2802/93677. [81]

Weil, D. (1999), “Are Mandated Health and Safety Committees Substitutes for or Supplements to Labor Unions?”, *ILR Review*, Vol. 52/3, pp. 339-360, http://dx.doi.org/10.1177/001979399905200301. [77]

Wiklund, H. (2011), *Sweden: regional safety representatives, a model that is unique in Europe*, ETUI, pp. 32-35. [84]

Wilkinson, A. et al. (eds.) (2010), *Voice in the Wilderness? The Shift From Union to Non-Union Voice in Britain*, Oxford University Press, http://dx.doi.org/10.1093/oxfordhb/9780199207268.003.0016. [60]

Williams, D. and S. Mohammed (2008), "Discrimination and racial disparities in health: evidence and needed research", *Journal of Behavioral Medicine*, Vol. 32/1, pp. 20-47, http://dx.doi.org/10.1007/s10865-008-9185-0. [126]

Willman, P; Gomez, R; Bryson, A (2009), "Voice at the workplace: where do we find it, why is it there and where is it going?", in *The Evolution of the modern workplace*, Cambridge University Press. [61]

Wood, S. (2008), "Job characteristics, employee voice and well-being in Britain", *Industrial Relations Journal*, Vol. 39/2, pp. 153-168, http://dx.doi.org/10.1111/j.1468-2338.2007.00482.x. [59]

Wood, S. (1996), "High Commitment Management and Payment Systems", *Journal of Management Studies*, Vol. 33/1, pp. 53-77, http://dx.doi.org/10.1111/j.1467-6486.1996.tb00798.x. [117]

Wrench, J. (2015), "Still no problem here? Responses to anti-discrimination legislation among trade unions in EU countries", *Transfer: European Review of Labour and Research*, Vol. 21/1, pp. 81-98, http://dx.doi.org/10.1177/1024258914561414. [133]

Yassi, A. et al. (2012), "Effectiveness of joint health and safety committees: A realist review", *American Journal of Industrial Medicine*, Vol. 56/4, pp. 424-438, http://dx.doi.org/10.1002/ajim.22143. [66]

Annex 4.A. Definition and sources of Job Quality indicators

Annex Table 4.A.1. Definition of job demand and job resource variables

	EWCS questions	EWCS variable			EWCS coding	Final coding
		2015	2010	2005		(scale 0-1)
A. Job demands						
1. Hard physical conditions						
Painful positions (d1)	Does your job involve tiring or painful positions?	Q30A	Q24A	Q11A	Scale 1–7	1 if Q30A<4;
					(all of the time – never)	0 otherwise.
Heavy loads (d2)	Does your job involve carrying or moving heavy loads?	Q30C	Q24C	Q11C	Scale 1–7	1 if Q30C<4;
					(all of the time – never)	0 otherwise.
Repetitive arm movements (d3)	Does your main paid job involve repetitive hand or arm movements?	Q30E	Q24E	Q11E	Scale 1–7	1 if Q30E<4;
					(all of the time – never)	0 otherwise.
High temperatures (d4)	Are you exposed at work to high temperatures which make you perspire even when not working?	Q29C	Q23C	Q10C	Scale 1–7	1 if Q29C<4 ;
					(all of the time – never)	0 otherwise.
Low temperatures (d5)	Are you exposed at work to low temperatures whether indoors or outdoors?	Q29D	Q23D	Q10D	Scale 1–7	1 if Q29D<3 ;
					(all of the time – never)	0 otherwise.
High noise (d6)	Are you exposed at work to noise so loud that you would have to raise your voice to talk to people?	Q29B	Q23B	Q10B	Scale 1–7	1 if Q29B<4;
					(all of the time – never)	0 otherwise.
Vibrations (d7)	Are you exposed at work to vibrations from hand tools, machinery, etc.?	Q29A	Q23A	Q10A	Scale 1–7	1 if Q23B<4;
					(all of the time – never)	0 otherwise.
Fumes (d8)	Are you exposed at work to breathing in smoke, fumes, powder or dust etc.?	Q29E	Q23E	Q10E	Scale 1–7	1 if Q29E<6;
					(all of the time – never)	0 otherwise.
Vapours (d9)	Are you exposed at work to breathing in vapours such as solvents and thinners?	Q29F	Q23F	Q10F	Scale 1–7	1 if Q29F<6;
					(all of the time – never)	0 otherwise.
Chemical products (d10)	Are you exposed at work to handling or being in skin contact with chemical products or substances?	Q29G	Q23G	Q10G	Scale 1–7	1 if Q29G<6;
					(all of the time – never)	0 otherwise.
Hard physical conditions = 1 if (d1 + d2 + d3 + d4 +d5 + d6 +d7 + d8 + d9 + d10) ≥ 1; 0 otherwise.						

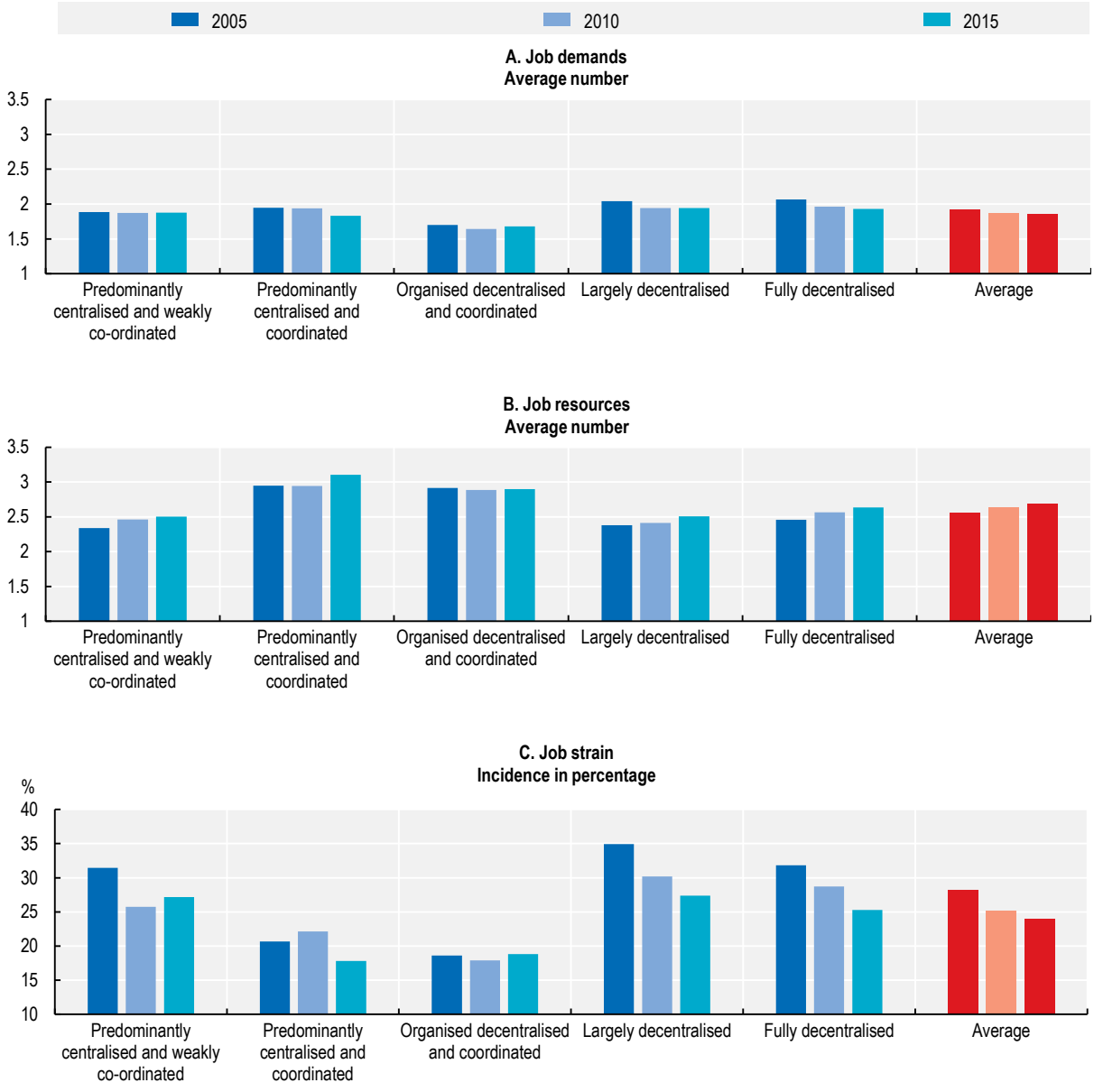
	EWCS questions	EWCS variable			EWCS coding	Final coding
		2015	2010	2005		(scale 0-1)
2. Intimidation or discrimination						
Bullying and harassment (d11)	Over the past 12 months, during the course of your work have you been subjected to bullying / harassment?	Q81C	Q71B	Q29D	Yes/No	1 if Q81C=Yes; 0 otherwise.
Age discrimination (d12)	Over the past 12 months at work, have you been subjected personally to age discrimination?	Q72A	Q65A	Q29G	Yes/No	1 if Q72A=Yes; 0 otherwise.
Discrimination linked to race, ethnic background or colour (d13)	Over the past 12 months at work, have you been subjected personally to discrimination linked to race, ethnic background or colour?	Q72B	Q65B	Q29I	Yes/No	1 if Q72B=Yes; 0 otherwise.
Discrimination linked to nationality (d14)	Over the past 12 months at work, have you been subjected personally to discrimination linked to nationality?	Q72C	Q65C	Q29H	Yes/No	1 if Q72C=Yes; 0 otherwise.
Gender discrimination (d15)	Over the past 12 months at work, have you been subjected personally to discrimination on the basis of your sex?	Q72D	Q65D	Q29E	Yes/No	1 if Q72D=Yes; 0 otherwise.
Discrimination linked to disability (d16)	Over the past 12 months at work, have you been subjected personally to discrimination linked to disability	Q72F	Q65F	Q29K	Yes/No	1 if Q72F=Yes; 0 otherwise.
Intimidation or discrimination = 1 if (d11 + d12 + d13 + d14 + d15 + d16) ≥ 1; 0 otherwise.						
3. Work intensity						
Work at very high speed (d17)	Does your job involve working at very high speed?	Q49A	Q45A	Q20BA	Scale 1–7 (all of the time – never)	1 if Q49A<3 0 otherwise.
Working with tight deadlines (d18)	Does your job involve working to tight deadlines?	Q49B	Q45B	Q20BB	Scale 1–7 (all of the time – never)	1 if Q49B<3 0 otherwise.
Long working hours (d19)	How many hours do you usually work per week in your main paid job?	Q24	Q18	Q8A	Number of hours	1 if Q24>50; 0 otherwise.
Not enough time to get the job done (d20)	Do you have enough time to get the job done?	Q61G	Q51G	Q25F	Scale 1–5 (always – never)	1 if Q61G>2; 0 otherwise.
Work intensity = 1 if (d17 + d18 + d19 + d20) ≥ 1; 0 otherwise.						
4. Unsocial work schedule						
Night work (d21)	Normally, how many times a month do you work at night, for at least 2 hours between 10.00 pm and 05.00 am?	Q37A	Q32	Q14A	Scale 1–17 (never – more than 20 times)	1 if Q37A>1; 0 otherwise.
Work more than 10 hours a day (d22)	How many times a month do you work more than 10 hours a day?	Q37D	Q36	Q14E	Scale 1–17 (never – more than 20 times)	1 if Q37D>5; 0 otherwise.
Unsocial work schedule = 1 if (d21 + d22) ≥ 1; 0 otherwise.						
5. Monotonous tasks						
Monotonous tasks (d23)	Generally, does your main paid job involve monotonous tasks?	Q53D	Q49D	Q23D	Yes/No	1 if Q53D=Yes; 0 otherwise.
Monotonous tasks = 1 if d23 = 1; 0 otherwise.						

	EWCS questions	EWCS variable			EWCS coding	Final coding
		2015	2010	2005		(scale 0-1)
B. Job resources						
1. Social support at work						
Help and support from colleagues (r1)	Your colleagues help and support you	Q61A	Q51A	Q25A	Scale 1–5	1 if Q61A<3;
					(always – never)	0 otherwise.
Social support at work = 1 if r1 = 1; 0 otherwise.						
2. Management support						
Help and support from manager (r2)	Your manager helps and supports you	Q61B	Q51B	Q25B	Scale 1–5	1 if Q61B<3;
					(always – never)	0 otherwise.
Respect from immediate boss (r3)	Your immediate boss respects you as a person	Q63A	..	..	Scale 1–5	1 if Q63A<4;
					(strongly agree – strongly disagree)	0 otherwise.
Work support from your immediate boss (r4)	Your immediate boss is helpful in getting the job done	Q63D	..	..	Scale 1–5	1 if Q63D<4;
					(strongly agree – strongly disagree)	0 otherwise.
Feedback from immediate boss (r5)	Your immediate boss provides useful feedback on your work	Q63E	..	..	Scale 1–5	1 if Q63E<4;
					(strongly agree – strongly disagree)	0 otherwise.
Management support = 1 if r1 = 1; 0 otherwise (2005-15).						
Management support = 1 if (r1 + r2 + r3 + r4 + r5) = 5; 0 otherwise (2015 only).						
3. Work autonomy						
Order of tasks (r6)	Are you able to choose or change your order of tasks?	Q54A	Q50A	Q24A	Yes/No	1 if Q54A=Yes;
						0 otherwise.
Methods of work (r7)	Are you able to choose or change your methods of work?	Q54B	Q50B	Q24B	Yes/No	1 if Q54B=Yes;
						0 otherwise.
Pace of work (r8)	Are you able to choose or change your speed or rate of work?	Q54C	Q50C	Q24C	Yes/No	1 if Q54C=Yes;
						0 otherwise.
Work autonomy = 1 if (r6 + r7 + r8) = 3; 0 otherwise.						
4. Training (at least five days per year)						
Training courses paid or provided by the employer (r9)	Over the past 12 months, have you undergone training paid for or provided by your employer?	Q65A	Q61A	Q28A1	Yes/No	1 if Q65A=Yes;
						0 otherwise.
Training course duration (r10)	Over the past 12 months, how many days in total did you spend in training paid for or provided by your employer?	Q66	..	..	Scale 1–6	1 if Q66>3;
					(one day or less – 20 days or more)	0 otherwise.
Training = 1 if r9 = 1; 0 otherwise (2005-15).						
Training (at least five days per year) = 1 if (r9 + r10) = 2; 0 otherwise (2015).						
5. Flexibility of working time						
Possibility to take a break (r11)	You can take a break when you wish	Q61F	Q51F	Q25E	Scale 1–5	1 if Q61F<4;
					(always – never)	0 otherwise.
Working time arrangements (r12)	How are your working time arrangements set?	Q42	Q39	Q17A	Scale 1–4	1 if Q42>2;
					(imposed – free choice)	0 otherwise.
Flexibility of working time= 1 if (r11 + r12) = 2; 0 otherwise.						

..: not available.
Note: Scale 1–7 refers to (1) all of the time, (2) almost all of the time, (3) around ¾ of the time, (4) around half of the time, (5) around ¼ of the time, (6) almost never and (7) never; scale 1–5 refers to (1) always, (2) most of the time, (3) sometimes, (4) rarely and (5) never; scale 1–6 refers to (1) one day or less, (2) 2-3 days, (3) 4-5 days, (4) 6-9 days, (5) 10-19 days and (6) 20 days or more; and scale 1–4 to (1) they are set by the company / organisation with no possibility for changes, (2) you can choose between several fixed working schedules determined by the company/organisation, (3) you can adapt your working hours within certain limits (e.g. flexitime), (4) your working hours are entirely determined by yourself.

Annex Figure 4.A.1. Change in the quality of the working environment by collective bargaining systems in Europe

Unweighted averages across countries, employees aged 15-64, 2005-15

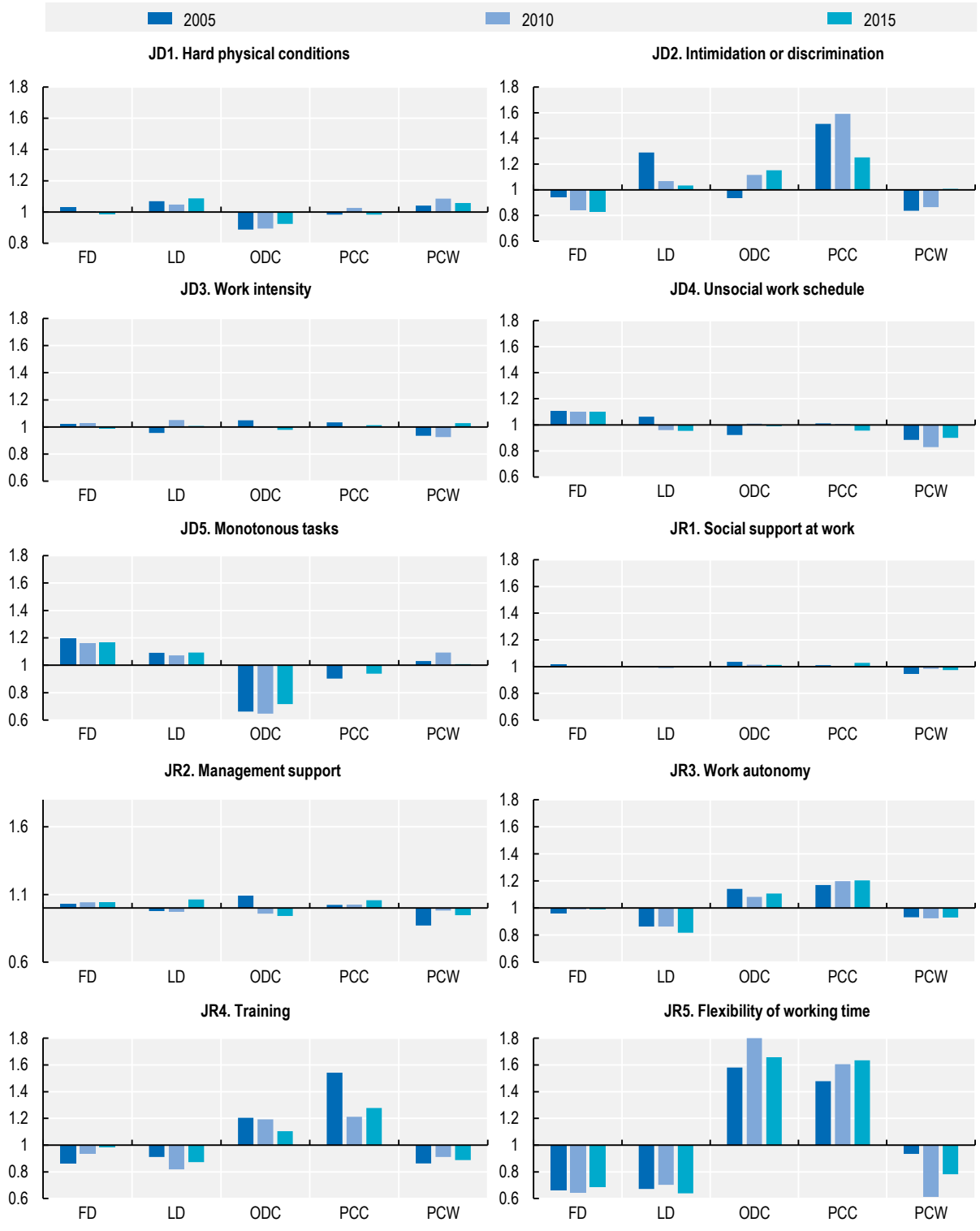


Note: Average is the unweighted average of all European countries shown (Survey weights are used) in Figure 4.2. For a description of the taxonomy of collective bargaining systems, see Annex 3.A. Data not available in 2010 for Switzerland.
Source: OECD estimates based on the European Working Conditions Survey (EWCS).

StatLink http://dx.doi.org/10.1787/888934027893

Annex Figure 4.A.2. Change in subcomponents of the quality of the working environment by collective bargaining systems in Europe

Ratio of incidence (base 1 for the overall average across countries), unweighted averages across countries, 2005-15



Note: FD: Fully decentralised; LD: Largely decentralised; ODC: Organised decentralised and coordinated; PCC: Predominantly centralised and coordinated; PCW: Predominantly centralised and weakly co-ordinated. Average is the unweighted average of all European countries shown in Figure 4.2 (Survey weights are used). For further details on definitions and constructions of the indicators, see Annex Table 4.A.1; and for a description of the taxonomy of collective bargaining systems, see Annex 3.A. Data not available in 2010 for Switzerland.
Source: OECD estimates based on the European Working Conditions Survey (EWCS).

StatLink http://dx.doi.org/10.1787/888934027912

Annex Table 4.A.2. Definition of workers' voice arrangements and measures of the quality of the working environment

	EWCS questions	EWCS variable	EWCS coding	Final coding
A. Workplace representation				
Employee representation (wr1)	Does a trade union, works council or a similar committee representing employees exist at your company or organisation?	Q71A	Yes/No	1 if Q71A=Yes; 0 otherwise.
Regular meeting (wr2)	Does a regular meeting in which employees can express their views about what is happening in the organisation exist at your company or organisation?	Q71C	Yes/No	1 if Q71C=Yes; 0 otherwise.
Mixed voice = 1 if (wr1 + wr2) = 2; 0 otherwise.				
Representative voice (union and non-union) = 1 if wr1 =1 and wr2 =0; 0 otherwise.				
Direct voice = 1 if wr1 =0 and wr2 =1; 0 otherwise.				
Safety and health delegate or committee (wr3)	Does health and safety delegate or committee exist at your company or organisation?	Q71B	Yes/No	1 if Q71B=Yes; 0 otherwise.
B. Occupational Health and Safety (OHS)[1]				
Information about health and safety risks (o1)	Regarding the health and safety risks related to performance of your job, how well informed would you say you are?	Q33	Scale 1–4 (very well informed – not at all well informed)	1 if Q33=1; 0 otherwise.
Perception that work positively affect health (o2)	Does your work affect your health?	Q74	Scale 1–3 (yes, mainly positively – no)	1 if Q74=1; 0 otherwise.
Perception that health is at risk because of work (o3)	Do you think your health or safety is at risk because of your work?	Q73	Yes/No	1 if Q73=Yes; 0 otherwise.
Health-related leave, at least 10 days per year (o4)	Over the past 12 months how many days in total were you absent from work due to sick leave or health-related leave?	Q82	Number of working days	1 if Q82>9; 0 otherwise.
Absence resulted from accident at work, at least 10 days per year (o5)	How many of these days of absence resulted from Accident(s) at work?	Q83A	Number of working days	1 if Q83A>9; 0 otherwise.
Work-related health problem, at least 10 days per year (o6)	How many of these days of absence resulted from health problems caused or made worse by your work (excluding accidents)	Q83B	Number of working days	1 if Q83B>9; 0 otherwise.
C. Working time[2]				
Long working hours (w1)	How many hours do you usually work per week in your main paid job?	Q24	Number of hours	1 if Q24>50; 0 otherwise.
Can take a break (w2)	You can take a break when you wish	Q61F	Scale 1–5 (always – never)	1 if Q61F<4; 0 otherwise.
Flexible working time arrangements (w3)	How are your working time arrangements set?	Q42	Scale 1–4 (imposed – free choice)	1 if Q42>2; 0 otherwise.
Work-life balance (w5)	In general, how do your working hours fit in with your family or social commitments outside work?	Q44	Scale 1–4 (very well – not at all well)	1 if Q44<3; 0 otherwise.
Don't work during free time to meet work demand (w6)	Over the last 12 months, how often have you worked in your free time to meet work demands?	Q46	Scale 1–5 (daily – never)	1 if Q46>3; 0 otherwise.
Working more hours than desired (w7)	How many hours per week would you prefer to work at present?	Q25	Number of preferred hours or same number of hours as actually worked	1 if Q24>Q25;
	How many hours do you usually work per week in your main paid job?	Q24	Number of hours	0 otherwise.

	EWCS questions	EWCS variable	EWCS coding	Final coding
D. Management practices				
Order of tasks (m1)	Are you able to choose or change your order of tasks?	Q54A	Yes/No	1 if Q54A=Yes; 0 otherwise.
Method of work (m2)	Are you able to choose or change your methods of work?	Q54B	Yes/No	1 if Q54B=Yes; 0 otherwise.
Pace of work (m3)	On the whole, is your pace of work dependent, or not, on automatic speed of a machine or movement of a product?	Q50D	Yes/No	1 if Q50D=Yes; 0 otherwise.
Team work (m4)	Do you work in a group or team that has common tasks and can plan its work?	Q58	Yes/No	1 if Q58=Yes; 0 otherwise.
Task rotation (m5)	Does your job involve rotating tasks between yourself and colleagues?	Q55	Yes/No	1 if Q55=Yes; 0 otherwise.
Self-assessment of own work (m6)	Generally, does your main paid job involve assessing yourself the quality of your own work?	Q53B	Yes/No	1 if Q53B=Yes; 0 otherwise.
E. Intimidation and violence at work				
Bullying / harassment (v1)	Over the past 12 months, during the course of your work have you been subjected to bullying / harassment?	Q81C	Yes/No	1 if Q81C=Yes; 0 otherwise.
Verbal abuse (v2)	Over the last month, during the course of your work have you been subjected to verbal abuse?	Q80A	Yes/No	1 if Q80A=Yes; 0 otherwise.
Unwanted sexual attention (v3)	Over the last month, during the course of your work have you been subjected to unwanted sexual attention?	Q80B	Yes/No	1 if Q80B=Yes; 0 otherwise.
Threats or humiliating behaviours (v4)	Over the last month, during the course of your work have you been subjected to threats?	Q80C	Yes/No	1 if Q80C=Yes or Q80D=Yes; 0 otherwise
	Over the last month, during the course of your work have you been subjected to humiliating behaviours?	Q80D		
Physical violence (v5)	Over the past 12 months, during the course of your work have you been subjected to physical violence?	Q81A	Yes/No	1 if Q81A=Yes; 0 otherwise
Sexual harassment (v6)	Over the past 12 months, during the course of your work have you been subjected to sexual harassment?	Q81B	Yes/No	1 if Q81B=Yes; 0 otherwise
F. Discrimination at work				
Age (d1)	Over the past 12 months at work, have you been subjected personally to age discrimination?	Q72A	Yes/No	1 if Q72A=Yes; 0 otherwise.
Ethnic background/race (d2)	Over the past 12 months at work, have you been subjected personally to discrimination linked to race, ethnic background or colour?	Q72B	Yes/No	1 if Q72B=Yes; 0 otherwise.
Nationality (d3)	Over the past 12 months at work, have you been subjected personally to discrimination linked to nationality?	Q72C	Yes/No	1 if Q72C=Yes; 0 otherwise.
Sex (d4)	Over the past 12 months at work, have you been subjected personally to discrimination on the basis of your sex?	Q72D	Yes/No	1 if Q72D=Yes; 0 otherwise.
Religion (d5)	Over the past 12 months at work, have you been subjected personally to discrimination linked to religion?	Q72E	Yes/No	1 if Q72E=Yes; 0 otherwise.
Disability (d6)	Over the past 12 months at work, have you been subjected personally to discrimination linked to disability?	Q72F	Yes/No	1 if Q72F=Yes; 0 otherwise.
Sexual orientation (d7)	Over the past 12 months at work, have you been subjected personally to discrimination linked to sexual orientation?	Q72G	Yes/No	1 if Q72G=Yes; 0 otherwise.

-: not applicable.

1. Scale 1–4 refers to (1) very well informed, (2) well informed, (3) not very well informed and (4) not at all well informed; and scale 1–3 to (1) yes, mainly positively, (2) yes, mainly negatively and (3) no.
2. Scale 1–5 refers to (1) always, (2) most of the time, (3) sometimes, (4) rarely and (5) never; scale 1–4 related to w2 (flexible working-time arrangements) refers to (1) they are set by the company / organisation with no possibility for changes, (2) you can choose between several fixed working schedules determined by the company/organisation, (3) you can adapt your working hours within certain limits (e.g. flexitime), (4) your working hours are entirely determined by yourself; scale 1–4 related to w4 (work-life balance) refers to (1) very well, (2) well, (3) not very well and (4) not at all well; and scale 1–5 related to w5 (don't work during free time to meet work demand) refers to (1) daily, (2) several times a week, (3) several times a month, (4) less often and (5) Never.

Notes

[1] See the influential report by the Stigliz-Sen-Fitoussi Commission (Stiglitz, Sen and Fitoussi, 2009[144]).

[2] Gallie (2007[141]) distinguishes between "inclusive regimes" (e.g. European Nordic countries), where policies are designed to extend both employment and workers' rights as widely as possible in the working age population, and "dualist regimes" (e.g. Mediterranean countries), where overall employment levels are less of a concern, while strong rights are guaranteed for a core of workers, at the expense of poor conditions for workers at the margins of the workforce. Yet another regime identified is the "market employment regime" (e.g. Anglo-Saxon countries), characterised by an emphasis on minimal employment regulation and an assumption that market adjustments will lead to higher employment levels and rewards for workers in line with their marginal productivity. Building on the varieties of capitalism typology proposed by Amable (2003[142]), Holman et al. (2012[143]) also propose to distinguish between different institutional regimes of job quality, extending it to a larger set of countries. They conclude that social democratic regimes (e.g. Nordic states) have the highest proportion of high-quality jobs, continental regimes (e.g. Germany, France) the second highest, liberal regimes (e.g. the United Kingdom) the third highest, and southern European (e.g. Spain, Greece) and transitional regimes (e.g. Eastern European countries) the lowest proportion of high-quality jobs.

[3] In some countries they also manage or participate in managing sickness insurance schemes (e.g. Austria) or parental leave benefit schemes (e.g. Denmark and Italy).

[4] Non-standard forms of work refers to all forms of work that are not based on a full-time open-ended employment contract. Involuntary non-standard forms of work therefore thus refers to cases such as involuntary temporary work. An example of union limiting the use of involuntary non-standard forms of work is that of IG Metall in Germany, which responded to the proliferation of temporary agency work in the early 2000s by negotiating direct agreements with companies defining a maximum quota of agency workers. These agreements often mandate the company to offer wages in line with the metalworking industry agreement. Furthermore, worker representation structures at company level – such as works councils – are also instrumental in discussing and regulating the use of precarious work contracts by management.

[5] The JDC model was extended in the 1980s with the addition of a social support dimension – see Johnson and Hall (1988[145])and Johnson, Hall and Theorell (1989[154]).

[6] Other interesting dimensions, such as opportunities for career advancement, or intrinsic interest could not be systematically added due to comparability issues across countries and/or time, or due to data unavailability.

[7] The job demand "work intensity" is captured by two questions (see Annex 4.A) that relate both to working time ("long hours") and work organisation ("pace of work").

[8] Variation across systems is very limited when it comes to outcomes like access to Occupational Safety and Health information, or workplace adaptation to workers' health conditions.

[9] Ideally, analyses of the effect of various forms of workers' voice should take account of this variation in the rights granted to representative institutions, to arrive at nuanced and precise assessments. Unfortunately, comparative data with this level of precision is largely missing. Further data collection efforts on this dimension are needed.

[10] As explained in Chapter 2, direct voice, as conceptualised in this publication should not be confused with freedom of speech at the workplace. Rather, it corresponds to cases where workers' voice takes the form of institutionalised, regular meetings between employers and workers for the latter to express their concerns. The contrast with representative forms of voice comes from the presence or absence of a representative *intermediary* between workers and managers. The distinction between direct and representative forms of voice is a regular feature in the literature – see e.g. Duran and Corral (2016[152]), Gallie and Zhou (2013[150]), Bryson et al. (2013[151]).

[11] In addition, workers in more demanding jobs are also more likely to be *aware* that representative institutions at the workplace exist at all, since they are more likely to have sought their help. This could also partly explain the results observed in Figure 4.4 and following, since workers' access to various workplace arrangements is captured through a survey item asking workers about the situation at their workplace (and, therefore, depends on their knowledge of existing institutions).

[12] In the European Union, the Directive 2002/14/EC requires the establishment of adequate structures for employee information and consultation. In some countries, the establishment of workers representation is mandatory after a certain threshold. In others, such as Germany, Greece, Portugal or Spain, it hinges on an employee or trade union initiatives (Donaghey et al., 2013[153]).

[13] The plausibility that these results are driven by the fact that non-cooperative employers self-select into that type of voice arrangements is reinforced by the fact that workers with access to only representative forms of voice represent the lowest category (14% in 2015, compared to 33% with no voice arrangements). The logic here is that we do not presume a majority of employers to be non-cooperative (Source: OECD estimates based on the 6th European Working Conditions Survey, 2015)

[14] Standardised incidence rates of accidents correct for the variation in the size of various economic sectors, characterised by higher or lower risks of accidents between countries to capture the variation in prevention measures, keeping the structure of the economy constant.

[15] Council Directive 89/391/EEC, 1989.

[16] The Amsterdam Institute for Advanced Labour studies (AIAS) compiled a sectoral database of collective agreements in the retail trade sector for the EU member states. See https://wageindicator.org/Wageindicatorfoundation/projects/barcom/barcom and Besamusca, Kahancová and Tijdens (2018[86]).

[17] The identification assumption is that, by following the same establishment over time, changes in safety outcomes are attributable to the union election and the election outcome.

[18] Source: OECD calculations based on CVTS 5 Scientific Use files. These figures are the unweighted average of countries covered by the data, namely: Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Hungary, Italy, Latvia, Lithuania, Luxembourg, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, and the United Kingdom (survey weights are used).

[19] The ILO recommends a minimum of one labour inspectors for 10 000 workers in industrial market economies (ILO, 2006[146]). That proportion is not reached in about half of European Union Member States (Menéndez et al., 2009[67]).

[20] Numerous studies on occupational health have investigated the impact of working very long hours on workers' well-being. Results suggest that working long hours impairs workers' physical and mental health outcomes, particularly when workers have little control on the number of hours they work and/or on their work schedule – see the literature review by Bassanini and Caroli (2015[147]).

[21] For instance, Lepinteur (2019[93]) using data from the European Community Household Panel, argues that reductions in weekly working hours introduced in Portugal and France generated significant increases in job satisfaction and leisure.

[22] The Working Time Directive (2003/88/EC) sets minimum standards for working hours and ensures that workers are not working too long hours and have adequate rest and holidays. Article 15 also allows Member States to apply or introduce laws, regulations or administrative provisions – and promote the application of collective agreements – that are more favourable to the protection of workers' health and safety. With very few exceptions, it applies to all sectors (public and private) and to all workers.

[23] This may to a certain extent have inverted the favourability principle which stipulates that a lower-ranking agreement can only take precedence over a higher-ranking one if more beneficial to the worker for some bargaining items

[24] Notably during the 2008 economic crisis when short time schemes were introduced to facilitate labour market resilience (for instance *Chômage partiel* in France and *Kurzarbeit* in Germany).

[25] ISTAT, *Contratti collettivi e retribuzioni contrattuali*.

[26] On the other hand, in the non-profit, caring sector, union members work more unpaid extra hours than covered non-members because of their specific pro-social motivations.

[27] The data do not allow computing the proportion of workers covered which is likely to be higher as large firms are more likely to be covered by a collective agreement including training provisions.

[28] Directive 2002/14/EC of the European Parliament and of the Council of 11 March 2002.

[29] These practices have been listed among the High Performance Work Practices that foster performance at company level (OECD, 2016[140]).

[30] A specific, but not less important, form of discrimination is discrimination against union members or union representatives. Even if union members and union representatives are protected by the right to organise, evidence for France shows that union representatives are paid about 10% less than other workers, while union members are paid around 4% less (Bourdieu and Breda, 2017[149]).

[31] Although further analysis is necessary to determine whether this increase corresponds to improved reporting, a greater awareness of what amounts to discrimination, or an actual increase in volume.

[32] These statistics are slightly lower when using data from the 2015 wave of the European Working Conditions Survey. In this data, age discrimination was the most frequent type of discrimination in the workplace in 2015 (3.7% of the respondents declared having experienced it in the last 12 months), followed by gender discrimination and that linked to nationality (2.3% each), ethnic background (1.9%), disability (1.1%), religion (0.9%) and sexual orientation (0.6%). Eurobarometer data are reported in the text because they allow looking at the incidence of particular type of discrimination among vulnerable groups, which the EWCS does not allow to do. Further analysis would be necessary to assess the origins of the difference between the two surveys.

[33] The ILO Convention 111 approved in 1958 was one of the first legal instruments against discrimination. Currently, about two-thirds of countries worldwide prohibit discrimination in employment based on gender, race, religion or disability while only 37% prohibit discrimination in employment based on sexual orientation (Valfort, 2017[148]).

[34] One of the major points of contention between the American Federation of Labor and Congress (AFL) and the Congress of Industrial Organizations (CIO) in the era immediately after the CIO split off, was the CIO's willingness to include black workers, who were excluded by the AFL.

[35] Although they have not fully solved the issue. Researchers found that 10 years after the Directive's introduction, some unions in Central and Eastern European countries were adopting a "no problem here" stance (Wrench, 2015[133]).

5 Facing the future of work: How to make the most of collective bargaining

Sandrine Cazes, Andrea Garnero, Sébastien Martin and Chloé Touzet

The purpose of this final chapter is to identify the role of labour relations in shaping the future of work. The chapter discusses how collective bargaining and workers' voice can be flexible tools complementing labour market regulation in fostering a more rewarding and inclusive future of work. The chapter then reviews what type of government intervention may be required to keep bargaining systems fit for purpose and to make the most of collective bargaining in a changing world of work. Finally, the chapter documents how existing institutions and social partners are adjusting to new challenges in the labour market, as well as the role of emerging actors and practices.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

In Brief

Key findings

Collective bargaining and workers' voice can help addressing the challenges posed by a changing world of work. As demographic and technological changes unfold, collective bargaining can allow companies to adjust wages, working time, work organisation and tasks to new needs in a flexible and pragmatic manner. It can help shaping new rights, adapting existing ones, regulating the use of new technologies, providing active support to workers transitioning to new jobs and anticipating skills needs.

Yet, the number of workers who are members of unions and covered by collective agreements have declined in many OECD countries. In addition, increases in different forms of non-standard employment in a number of countries pose a challenge to collective bargaining, as non-standard workers are under-represented by trade unions. This under-representation reflects both practical difficulties in organising non-standard workers and the historical focus of collective bargaining on standard employees, but also legal obstacles to collective bargaining for some non-standard workers such as the self-employed. Indeed, while labour law grants all *salaried* employees – whether in a standard or non-standard relationship – an undisputed legal right to collective bargaining, for workers usually classified as self-employed this right may be seen as infringing competition law. This is the case even though the International Labour Organisation (ILO) Convention on the right to organise and bargain collectively refers to *workers* in general. In this context, this chapter argues that:

- Enforcing the correct classification of workers and fighting misclassification is of particular importance in ensuring that workers benefit from the protection and rights to which they are entitled.
- However, a significant number of workers may still fall in a "grey zone" between the usual definitions of employee and self-employed, where genuine ambiguity exists about their employment status. For those workers, who share vulnerabilities with salaried employees, and for some self-employed workers in unbalanced power relationships, adapting existing regulations to extend collective bargaining rights may be necessary. For instance, several OECD countries have already sought to grant collective bargaining rights to some of these workers through tailored interventions in the labour law or explicit exemptions to the law prohibiting cartels.

While each country's history, situation and regulatory settings are different, this chapter argues that, despite the above-mentioned challenges, collective bargaining systems can still play a key role in promoting inclusive labour markets for workers and a level-playing field for all companies, including new ones. For example:

- Social partners have developed strategies to reach potential members in non-standard forms of work, first in challenging workers' status and classification, but also through lobbying on behalf of non-standard workers, adapting their bargaining practices to be more inclusive, or engaging in initiatives aimed at strengthening these workers' voice. In some OECD countries, unions have adapted their legal status to allow self-employed workers to become members, while others have created dedicated branches for non-standard workers. New independent unions have also been created.

- New vehicles for representing workers' interests have been developing in some OECD countries, such as Worker Centers or the Freelancers Union in the United States, or co-operatives of workers in some European countries. Yet, while these forms of workers' organisations can improve links and communication between non-standard workers, they cannot replace unions. In particular, they do not have the legal mandate to bargain collectively on behalf of their members or the ability to deliver on negotiated agreements. Therefore, they can complement unions rather than be a substitute for them; co-operation between traditional and new forms of workers' organisation is now emerging in some contexts.
- Employers' organisations are also being put to the test by changes to the world of work. They have an interest in ensuring a level-playing field for their members in the face of new competitors, who may circumvent existing labour regulations – for instance, digital platforms often consider themselves as matchmakers rather than employers.
- Successful examples of bargaining in the temporary work agency sector (which emerged as an innovative form of employment decades ago) or in sectors where non-standard work is common, such as the cultural and creative industries, have proven that systems are able to adjust to cover different and new forms of work.
- A few innovative collective agreements have also recently been signed in European OECD countries between unions and companies – including digital platforms, but they remain very limited. Platforms have taken some initiatives to allow workers to express their concerns and pre-empt the introduction of new legislation on the way they operate.

Introduction

The weakening of labour relations discussed in Chapter 2 poses serious challenges for workers' rights, benefits and protections. It also increasingly leaves employers and employers' organisations without a clear counterpart for discussions on sector- or firm-specific issues. This is problematic because the need for coordination mechanisms to overcome collective action problems and reach a balance between the interests of workers and employers has not gone away. Furthermore, the weakening of collective bargaining may also leave the door open to other forms of social conflict, such as boycotts or social media campaigns, and other types of regulation, as the scope for "self-organisation" among employers and workers on the ground is reduced.

While collective bargaining and workers' voice face increasing challenges in a changing world of work, they can nonetheless help address its increasing complexity and diversity. There are many examples showing that social partners and collective bargaining systems can adjust, develop new strategies and reshape existing institutions. In particular, they can contribute to addressing the realities of global markets, increased competition and fragmentation of production, and ensure that all workers and companies, including small and medium-sized enterprises, reap the benefits of technological innovation, organisational changes and globalisation as well as face – see European Commission (2018[1]) and (2019[2]).

In this context it is important to acknowledge the potential flexibility offered by collective bargaining in seeking solutions to issues of common concerns[1] and to discuss how they can complement public policies in social protection systems, life-long learning schemes and the regulation of employment relationships (ILO, 2019[3]). This chapter focuses on the role of collective bargaining as a "fundamental principle and right at work"[2] and a key labour market institution that allows reaching mutually beneficial agreements about work organisation and conditions, and provides room for interactions between social partners.

However, the precise role played by collective bargaining in shaping the future of work will depend on national institutional settings, practices and traditions (OECD, 2018[4]).

This chapter assesses the extent to which existing models remain fit for purpose, and discusses how traditional actors can adjust to the new challenges.[3] Section 5.1 illustrates how collective bargaining can complement public policies in strengthening labour market security and adaptability. Section 5.2 discusses adaptations to existing regulations that may be required to ensure that all workers in vulnerable situations get adequate worker representation and access to collective bargaining. Section 5.3 discusses the strategies developed by social partners to reach out to those in non-standard and new forms of work and business. Section 5.4 reviews other forms of labour organisation that are emerging in some OECD countries and their relations with the more traditional ones.

5.1. Collective bargaining in a changing world of work

5.1.1. Collective agreements can be flexible tools to address some of today's and tomorrow's challenges

Through collective bargaining, trade unions (simply called "unions" hereafter) play a crucial role articulating and pressing demands for higher wages, as well as representing the collective interests of workers more generally and facilitating an exchange between workers and their employers on various aspects of the working life (Freeman and Medoff, 1984[5]).

Depending on national regulatory settings as well as actual practices and traditions, unions' access to information, consultation and participation in decision making in the workplace can also enhance occupational health and safety and improve work organisation – e.g. by fostering high performance work practices, such as team work, autonomy, task discretion, mentoring, job rotation, and applying new learning – see OECD (2016[6]) and Chapter 4. Through collective agreements, in particular sectoral agreements that also allow covering small and medium-sized enterprises, collective bargaining can also help spreading best practices in terms of personnel management, training, health and safety, technology usage, insurance, or retirement packages.

When undertaken in a constructive spirit, accommodating the need for balancing inclusiveness and flexibility (OECD, 2018[7]), and within a framework that guarantees the respect of fundamental labour rights and a balance in bargaining power, collective bargaining can help companies respond to demographic and technological change. Collective bargaining allows them to adapt pay, working time, work organisation and jobs themselves, to new needs, in a more flexible and pragmatic – but yet fair – manner than that entailed by changing labour law.

Recent agreements in some OECD countries show that new issues related to work-life balance, increased flexibility around working time arrangement, or regulation of the use of new technological tools, are gaining ground in collective bargaining – see European Commission (2018[1]).

In France for instance the "right to disconnect", i.e. the right not to read and answer work-related emails and calls outside working hours, was provided in 2014 in a sectoral agreement for business consulting, followed by the wholesale trade sector in 2016. These agreements introduce "an obligation to disconnect distant communication tools". Similar provisions have been signed at firm level, for instance by the insurance company AXA, the energy company Areva and the telecommunication company Orange. The HR Director of Orange then published a very influential report on digital transformation and quality of life at work (Mettling, 2015[8]). The report was the basis for a law in 2017 which acknowledged the "right to disconnect" among the topics of mandatory annual negotiations with unions. In the absence of an agreement, employers have to draft a charter in consultation with the works council or the employee representatives.

Similar agreements including the recognition of the right to turn off company phones or to not answer work-related calls outside working hours have been signed at company level. Volkswagen was first in 2012 by preventing email exchanges on its internal servers between 6.15pm and 7am. AXA and the Spanish Trade Union Confederation of Workers' Commissions (CCOO) also concluded a similar agreement in 2017 in Spain.

There are also signs that the more general issues of work-life balance and working time flexibility are gaining prominence in collective agreements, possibly reflecting changes in workers' preferences and company recognition of the negative impact of job strain on productivity (see Chapter 3).

Finally, unions and employers are engaging in "algorithm negotiations", i.e. they are including as a subject of bargaining the use of artificial intelligence, big data and electronic performance monitoring ("people analytics") in the workplace, as well as their implications for occupational health and safety, privacy, evaluation of work performance and hiring and firing decisions (De Stefano, 2018[9]). Several collective agreements have started regulating the use of technology not only in monitoring workers but also in directing their work (Moore, Upchurch and Whittaker, 2018[10]).

5.1.2. Collective bargaining can complement public policies in enhancing labour market security and adaptability

The OECD's work on displaced workers (OECD, 2018[4]) has highlighted the significant role that collective bargaining, in particular at the sectoral level, can play in enhancing labour market security[4] and strengthening workers' labour market adaptability. As evolving demands for products and services as well as technological change are quickly affecting skills needs, social partners can provide active support to workers displaced from their existing jobs to help them back into good jobs.

The Swedish Job Security Councils (JSCs) are one of the most notable examples of this (OECD, 2015[11]). They provide support and guidance to displaced workers, even before displacement occurs, as well as access to training and reskilling opportunities in the case of plant closures and mass layoffs. JSCs allow companies and unions to trade exemptions from the "last in, first out"[5] rule for collective dismissals in exchange for a timely[6] and effective reallocation of displaced workers (Engblom, 2017[12]). JSCs are jointly owned by employers' organisations and unions (the government has no role). Their funding (which comes entirely from employers) is negotiated in collective agreements along with wage increases and unions frequently hold back on the latter to safeguard JSC funding. JSCs also illustrate the advantage of sectoral bargaining, which allows to distribute the risks and the accompanying costs of displacement over an entire sector. All workers covered by a collective agreement are covered by the JSC, including non-union members. To be eligible, workers need to have worked in their company for at least 12 months. JSCs are a complement to the Public Employment Service (PES). They can provide a top-up to unemployment benefits as well as coaching, training and upskilling services. A similar model to the Job Security Councils exists in Austria, where Outplacement Labour Foundations provide assistance, guidance, reskilling solutions and practical training to displaced workers. They also provide extended unemployment insurance, especially to those workers most in need.

Beyond supporting displaced workers, Chapter 3 has shown that social partners can also play a role in anticipating skills needs. For instance, the JSCs' upskilling services are partly based on a skills barometer which they run twice a year and which allows JSCs to anticipate skills needs. In addition to "outplacement" foundations, Austria also has Inplacement Labour Foundations which have a more forward-looking element and help companies/sectors obtain qualified personnel in case of shortage. Because Labour Foundations are owned by the social partners, skills needs can be identified swiftly. In Germany, a 2016 agreement in the metal, engineering and technology sector titled "Training and qualification for industry 4.0 – managing change successfully", committed to analysing all vocational and lifelong training programmes offered by the industry to assess their adequacy to the growing use of data exchange and automation in manufacturing. More generally, in several OECD countries, social partners are represented

on sectoral skills councils, which produce industry-specific long-term projections to ensure that current qualifications meet future demand for skills – see Chapter 4 and OECD (2019[13]).

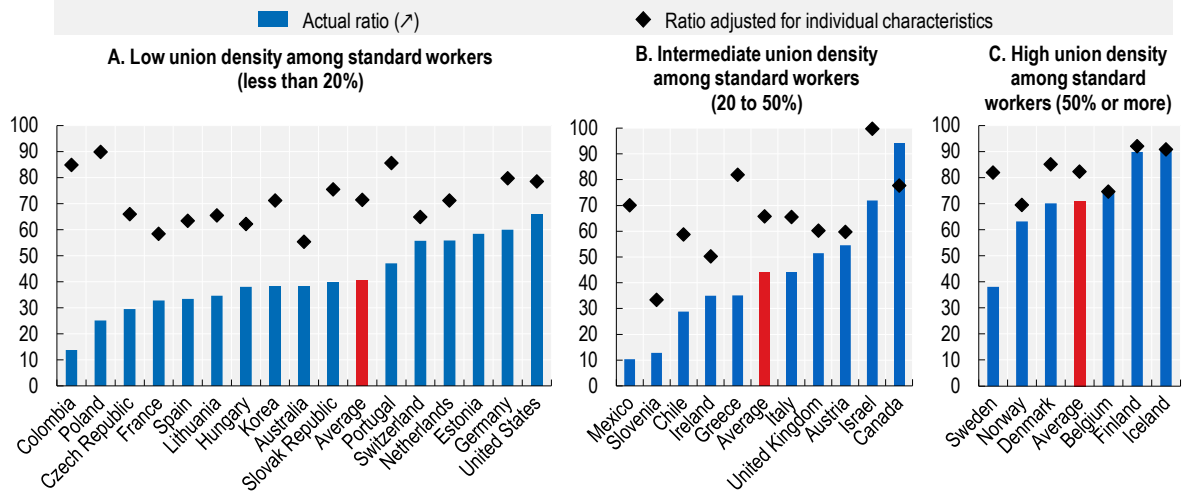
In a time of rapid change and despite the decline in membership and coverage, the role of social partners in finding tailor-made solutions, managing transitions, anticipating and filling skills needs may, therefore, be increasingly important.

5.1.3. But challenges are accumulating…

Chapter 2 has shown how, over the last three decades, collective bargaining systems have been under increasing pressure. The rise of different forms of non-standard work in a number of OECD countries poses an additional challenge to collective bargaining, as non-standard workers are less likely to be unionised than standard workers (Figure 5.1). With the exception of Israel, this is the case even when controlling for composition effects (linked to gender, age, education, industry, occupation, firm size and part-time vs. full-time employment).[7] On average, when controlling for composition effects, the ratio of trade union density among non-standard workers relative to standard workers is not significantly higher in countries where trade union density among standard workers is higher and is remarkably similar across countries in all three panels.[8] This suggests that the lower unionisation of non-standard workers does not depend on country-specific characteristics but rather reflects difficulties in organising non-standard workers that are inherent to the non-standard status itself.

Figure 5.1. Non-standard workers are underrepresented by trade unions

Actual and adjusted ratio of trade union density among non-standard workers relative to standard workers (%), latest available year



Note: Countries are grouped by degree of unionisation among standard workers. Figures refer to 2010-12 for Greece and the Slovak Republic; 2013 for France; 2015 for Germany and Hungary; 2016 for Finland; 2014-16 for Austria, Belgium, the Czech Republic, Denmark, Iceland, Israel, Italy, Lithuania, the Netherlands, Norway, Poland, Portugal, Slovenia, Spain and Switzerland; 2017 for Canada, Chile, Colombia, Estonia, Ireland, Korea, Sweden, the United Kingdom and the United States; and 2018 for Australia and Mexico. Average is the unweighted average of countries shown in each panel (excepted Estonia in Panel A).

Non-standard workers are those without an open-ended employment contract. The precise categories of workers included in the chart differ across countries (for further details see Annex 5.A). The adjusted ratio for individual characteristics is based on the marginal effect of being in a non-standard form of work relative to being in an open-ended contract calculated from a probit regression controlling for sex, age groups, educational levels, industry, public vs private sector (except for Ireland), occupation, firm size (except for the United States) and full-time vs. part-time employment. The data necessary for this adjustment are not available for Estonia.

The correlation between the adjusted ratio and trade union density among standard workers is weak (0.39) and statistically significant at the 5% level but becomes statistically insignificant (and even weaker, 0.24) when excluding Finland and Iceland.

Source: OECD estimates based on the Labour Force Survey (LFS) for Canada, the Encuesta de Caracterización Socioeconómica Nacional (CASEN) for Chile, the Gran Encuesta Integrada de Hogares (GEIH) for Colombia, the Finnish Working Life Barometer (FWLB) for Finland, the Enquête statistique sur les ressources et conditions de vie (SRCV) for France, the German Socio-Economic Panel (SOEP) for Germany, the Quarterly National Household Survey (QNHS) for Ireland, the Encuesta Nacional de Ocupación y Empleo (ENOE) for Mexico, the Labour Force Survey (LFS) for the United Kingdom, the Current Population Survey (CPS), May Supplement for the United States and the European Social Survey (ESS) for all other European countries not listed above (excepted Estonia, Hungary and Sweden) and Israel. For Australia, Estonia (actual ratio only), Hungary, Korea and Sweden, actual ratios are based on data provided by national statistical authorities: Characteristics of Employment (COE) Survey for Australia, Labour Force Survey (LFS) for Hungary, Economically Active Population Survey (EAPS) for Korea and Labour Force Survey (LFS) for Sweden, while adjusted ratios are OECD estimates based on the Household, Income and Labour Dynamics in Australia (HILDA) for Australia, the European Social Survey (ESS) for Estonia, Hungary and Sweden and the Korean Labor and Income Panel Study (KLIPS) for Korea.

StatLink http://dx.doi.org/10.1787/888934027931

In particular, non-standard workers face practical difficulties and legal obstacles in joining unions (see Section 5.1.4 below). Their lower unionisation rates may also be the result of unions historically focusing on standard workers' needs, rather than those of non-standard ones. However, as discussed in previous chapters, empirical evidence for insider-outsider theories arguing that unions neglect the interest of outsiders is partial and mixed. Research based on the content of collective agreements shows that the fact that unions take into account the concerns of agency workers does not depend on their membership composition (Benassi and Vlandas, 2016[14])

5.1.4. …and there are legal obstacles to overcome

Beyond individual-level barriers, the organisation and representation of some non-standard forms of employment is hindered by concrete legal obstacles. If ILO Convention 98 on the right to organise and bargain collectively refers to workers in general[9], in practice, the right to bargain for non-salaried workers is subject to legal discussion as possibly infringing the application of antitrust regulations (Aloisi, 2018[15]; Linder, 1999[16]).

As illustrated in Figure 5.2, while salaried workers face only practical difficulties in exercising their collective rights (see Section 5.3 and Section 5.4 below), workers in the "grey zone" between dependent employment and self-employment – see Chapter 4 in OECD (2019[17]) and Box 5.1 below – as well as genuine self-employed workers, who might nonetheless be in unbalanced power relationships with their employer/client, may also be barred from bargaining collectively due to laws prohibiting cartels, which tend to consider them as "undertakings" (Daskalova, 2018[18]).

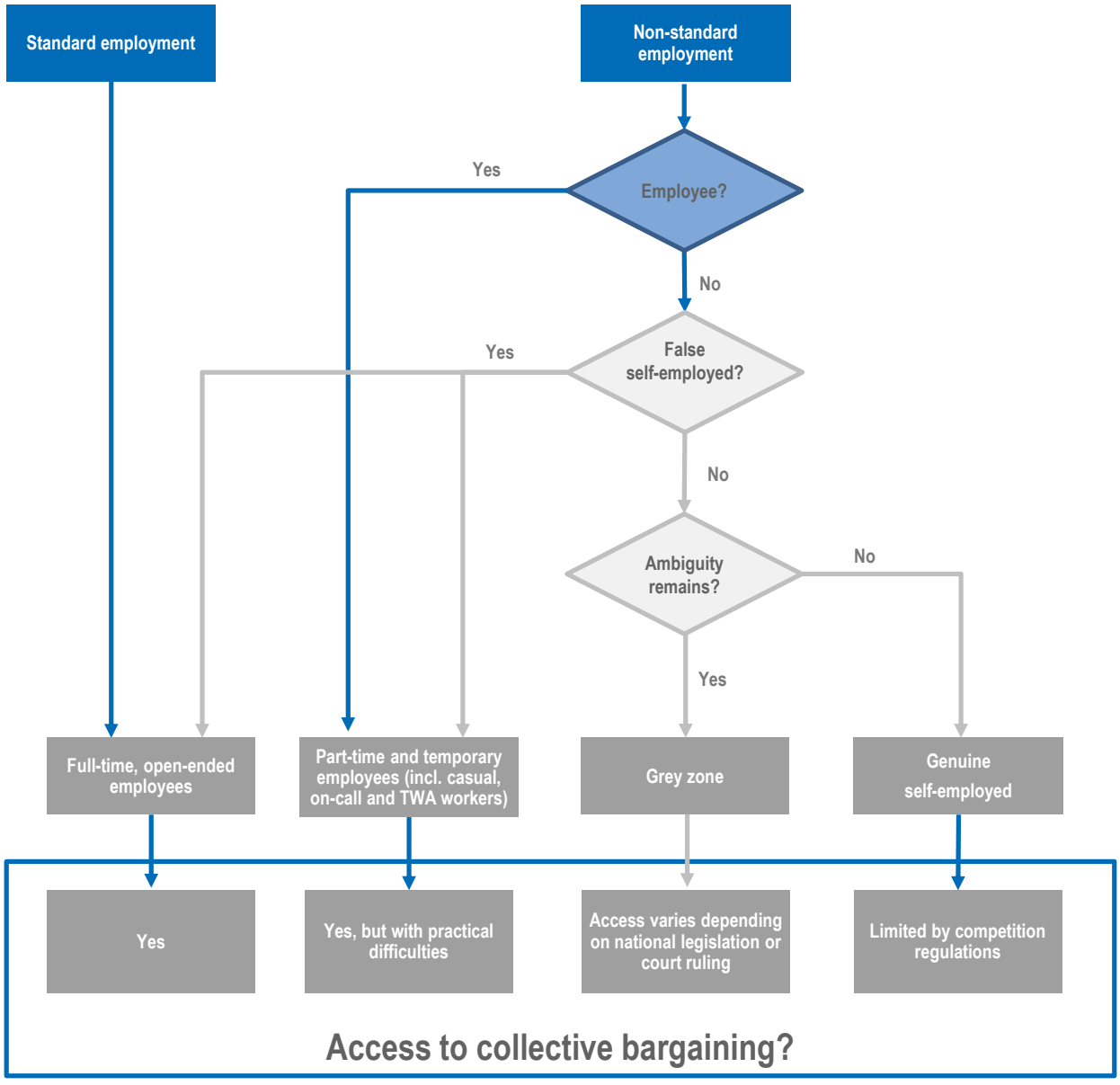
Traditionally, the primary objective of competition law has been to defend consumers from anti-competitive practices by sellers. When this objective came into contradiction with the labour law objective of protecting workers, courts and legislators have intervened to clarify legal interactions. In particular, courts have detailed the conditions under which collective bargaining could be exempt from the cartel prohibition established in competition law. For instance, the US Clayton Antitrust Act of 1914 states that "the labor of a human being is not a commodity or article of commerce". Therefore, "labor (…) organizations, instituted for the purposes of mutual help, [should not] be held or construed to be illegal combinations or conspiracies in restraint of trade, under the antitrust laws" (§7 Clayton Act, 15 U.S.C. § 18). In EU competition law, the clarification came from the Court of Justice in the so-called Albany case (C-67/96) – which arose from a dispute between a company and a pension fund regulated by a collective agreement in 1999. In this instance, the European Court of Justice also ruled that collective agreements for employees fall outside the scope of competition law.[10]

However, as forms of work become more heterogeneous and self-employment increases, especially in the context of platform-mediated services, new challenges face courts and legislators. The standard approach in antitrust enforcement has often been to consider all self-employed workers as undertakings and therefore any collective agreement reached by self-employed workers – including those in the "grey zone" and self-employed workers in an unbalanced power relationship – as a cartel.

In Ireland, for instance, the national competition authority decided in 2004 that self-employed actors could not set tariffs and contract terms collectively.[11] In the Netherlands, in 2006 and 2007, associations representing

freelance workers in the performing arts sector and an association representing orchestras signed an agreement that included a minimum fee for self-employed musicians temporarily replacing orchestra members. Reacting to this, the Dutch competition authority issued a reflection document warning that the setting of minimum tariffs by a union representing the self-employed was a price-fixing scheme contrary to competition law.[12] Following this statement, the employer association withdrew from the agreement (Daskalova, 2018[18]). The argument that collective bargaining for self-employed workers was incompatible with competition law has also been used in the United States by Uber to challenge a 2017 ordinance by the City of Seattle that allowed drivers to unionise and bargain together.[13]

Figure 5.2. Access to collective bargaining for different forms of employment, current situation



Note: The figure maps standard and non-standard employment into the different categories of workers. Diamonds correspond to classification decisions that can be taken either by the parties (e.g. stipulated in a written contract between employers and workers) or by adjudicators (courts or enforcement agencies). Grey diamonds refer to decisions that are most often taken by adjudicators. The bottom rectangles refer to access to collective bargaining.

Box 5.1. Who are the workers in the grey zone?

In most cases where individuals are falsely classified by the parties as self-employed (e.g. in a written contract between employers and workers), courts will be able to determine this relatively easily using the criteria and tests that have been developed in statutory legislation or jurisprudence (see Figure 5.2). In establishing whether a worker is an employee, courts typically look at: financial dependence; control and subordination; the worker's integration in the organisation; who provides the tools, materials or machines; the regularity of payments; the extent to which the worker takes on financial/entrepreneurial risk; the degree of discretion over the continuation of the relationship, etc.

However, there are also cases where a genuine ambiguity remains since test criteria may point in different directions. These cases fall in a "grey zone" between self- and dependent employment. Workers in this grey zone, who are usually formally classified as self-employed, share a number of characteristics with dependent employees, usually resulting in an unbalanced power relationship with their employer/client. There is therefore a case for extending to them certain rights and protections usually granted to employees by labour law.

Countries have taken different routes to extend rights and protections to workers in the grey zone. Some countries have identified very specific occupations to which certain labour rights and protections have been extended. Other countries have focussed on the specific category of workers who are dependent on one employer/client for most of their income (the so-called "dependent" self-employed).

A handful of countries have relied on a vaguer definition of an intermediate category (or "third worker category") to which some of the rights and protections of employees have been extended. While this solution potentially covers a larger set of workers, it also increases the danger that the objective of litigation is shifted down from obtaining employee status to merely obtaining worker status, and that it could be used to downgrade the degree of protection of workers that would have otherwise been classified as employees.

Finally, another approach consists in treating everyone in the grey zone as an employee as far as certain aspects of labour law are concerned. In practice, this would be equivalent to defining a "residual category" capturing those cases where employment tests fail to come to clear conclusions about self-employment status. Although so far no country has systematically adopted this approach, it was followed in a couple of cases by the supreme courts of both California and Sweden. The latter concluded that, because the circumstances of the relationship were ambiguous and it was difficult to make a clear judgement, an employment relationship would be assumed – see Chapter 4 in OECD (2019[17]) for a more extensive discussion).

The case of the Dutch substitute musicians was brought to the European Court of Justice (ECJ) which in 2014 ruled that, while genuine self-employed should continue to be seen as "enterprises", the so-called "false self-employed" are not to be considered undertakings for the purpose of competition rules (Daskalova, 2018[18]; Aloisi, 2018[15]).[14] If, on the one hand, the ECJ left the door open to agreements signed on behalf of the false self-employed (Ankersmit, 2015[19]), it also left to legislators and lower courts the challenge of distinguishing genuine self-employment and entrepreneurship from false self-employment.

In addition, workers in the grey zone who share some of the vulnerabilities inherent to an employee status but are not false self-employed are still barred from accessing bargaining following that ruling. Moreover, the ruling also forbids collective bargaining for genuinely self-employed workers that nevertheless are in unbalanced power relationship vis-à-vis their employer/client.

As forms of work continue to diversify, the question of access to collective bargaining for new technology-induced forms of employment (i.e. platform work) and other forms of work in the "grey zone", such as dependent self-employment – where a self-employed worker's income is dependent on only one or a few clients – is a key contemporary challenge for labour relations (ILO, 2019[3]).

Indeed, extending the coverage of job-related benefits (minimum wages, health plans, unemployment benefits, etc.) to non-standard workers (OECD, 2019[17]) or improving their job mobility prospects is not a functional equivalent to guaranteeing access to collective bargaining. As highlighted before, collective bargaining is not only a fundamental right, but also a flexible tool that can be mobilised by workers as well as employers to address work-related challenges (including some that cannot be currently anticipated) at national, sectoral or company-level.

5.2. Adapting regulations to more diverse forms of employment

In light of the legal obstacles discussed in the previous section, legislators may have a role to play to adapt existing rules to the changing world of work and extend the legal access to collective bargaining to a larger share of workers, notably to workers in the "grey zone" as well as to some self-employed workers in unbalanced power relationship.

The European Committee of Social Rights of the Council of Europe has recently argued that in establishing collective bargaining rights "it (is) not sufficient to rely on distinctions between worker and self-employed. (…) Where providers of labour have no substantial influence on the content of contractual conditions, they must be given the possibility of improving the power imbalance through collective bargaining".[15]

Granting bargaining rights to workers in the "grey zone" and to self-employed workers in unbalanced power relationships may not only be desirable for fairness consideration, but also for efficiency reasons. Indeed, as discussed in OECD (2019[17])(see, in particular, Annex 4.A of Chapter 4), disproportionate buyer power not compensated by sufficient bargaining power on the workers' side (including when these workers are self-employed) may lead to suboptimal employment and wage outcomes, as well as poor working conditions (Daskalova, 2018[18]). In this context, extending the right to bargain, or lifting the prohibition to collectively bargain on a case-by-case basis could improve both equity and efficiency of the market.[16]

In practice, the main difficulty is to identify some criteria for providing access to collective bargaining to avoid giving unregulated freedom to own-account self-employed workers – that is, self-employed without employees – to form cartels (even small ones), as this could have clear negative consequences for consumer welfare. Typically, the numerous existing cases of, for example, plumbers or professional services agreeing about sharing local markets or colluding to set prices should be prevented.[17]

Adapting regulations to allow workers in the "grey zone" and certain self-employed workers in unbalanced power relationships to bargain collectively is part of a broader framework to protect workers and address concerns like that of disproportionate employer market power discussed in other chapters. Giving these workers the possibility to voluntary "exit", i.e. to find another job (in terms of the skills they possess but also of restrictions to mobility in labour contracts) if their "voice" is not heard would also contribute to strengthen their bargaining power (see also Chapter 4).[18]

The following sections discuss some options which have been considered in OECD countries to grant bargaining rights to non-standard workers formally classified as self-employed but who share some characteristics with dependent employees and are in an unequal power relationship with their employer.

5.2.1. Enforcing the correct classification of the employment relationship

Ensuring a correct classification of workers and fighting against misclassification is critical to enforce existing regulations and provide access to collective bargaining to workers who would otherwise be unjustly

excluded. This has been a strategy frequently pursued by unions to include all non-standard forms of work into existing collective agreements (see Section 5.3) as providing a first step to access collective bargaining and a direct gateway to social and employment protection. However, even if all workers were correctly classified, there would still be an issue of bargaining rights for those workers in the grey zone, who cannot be easily classified, and for workers who are genuinely self-employed, but are in an unbalanced power relationship vis à vis certain buyers, with limited options to provide services to other buyers.

5.2.2. Tailoring labour law to grant access to bargaining to workers in the grey zone

Some OECD countries have given the right to bargain collectively to some workers in the grey zone by including them in an extended definition of who is an employee, as far as the labour relations legislation are concerned. This is the approach favoured since the mid-1960s in Canada, where the federal and many provincial labour relations legislations regarding collective bargaining explicitly includes "dependent contractors"[19] in its definition of employees, allowing for their inclusion in the same bargaining unit[20] as permanent full-time employees and usually with the same collective agreements (while it is uncommon for dependent contractors to have a separate collective agreement from permanent employees, this is legally permissible).[21]

In other OECD countries, specific categories of workers in the "grey zone", such as dependent contractors in Korea, *parasubordinati* in Italy, *Arbeitnehmerähnliche Personen* in Germany, *workers* in the United Kingdom, *TRADE* in Spain or, since January 2019, any "person working for money"[22] in Poland, are included in collective bargaining (or in the case of Spain they can sign specific "professional interests agreements", *acuerdos de interés profesional*) even if they are not formally employees.

5.2.3. Exempting specific forms of self-employment or sectors/occupations from the prohibition to bargain collectively

A complementary policy option explored by some governments consists in lifting the prohibition to bargain collectively for some workers who are genuinely self-employed, but are nonetheless in situations of power asymmetry vis-à-vis their customer/employer. This is the case when self-employed workers are facing employers/clients with a disproportionate buyer or monopsony power, while their outside options are limited (see Chapter 4 and below). Examples of such genuinely self-employed workers who might nonetheless be in unbalanced power relationships include for instance freelance musicians, actors, performing artists, or journalists – for whom the possibility of lifting the bargaining prohibition has been discussed in several countries – and granted in some.

Such objectives could be pursued either by adopting a pragmatic approach vis a vis groups of self-employed most exposed to unbalanced power relationships or by introducing explicit legal exemptions from the enforcement of the prohibition to bargain collectively.

In many cases, regulators and enforcement authorities have taken a case-by-case approach to avoid a strictly procedural analysis of cases involving those workers with little or no bargaining power and exit options. Moreover, in several countries (e.g. in France, Italy, Spain, etc.), independent unions of platform workers are de facto negotiating working conditions for their members even if they are classified as self-employed without any intervention from national antitrust authorities. The risk associated with this route is that it potentially creates uncertainty since it could be reversed without any legislative reform.

Another avenue that has been followed by a few OECD countries is to introduce explicit exemptions to the cartel prohibition for certain forms of self-employed, sectors or occupations (Daskalova, 2018[18]). In 2017, the Irish Parliament amended the Competition Act to include voice-over actors, session musicians and freelance journalists among the occupational categories that have the right to negotiate. Furthermore, it also opened the possibility to access collective bargaining for "fully dependent self-employed"[23] and not only "false

self-employed" workers (as per the ECJ 2014 ruling – see above). Under Irish law, trade unions have to apply for the exemption, prove that the workers they want to represent fall in one of these two classes, and show that their request will have "no or minimal economic effect on the market in which the class of self-employed worker concerned operates", nor "lead to or result in significant costs to the State".

The 2017 Irish amendment has attracted many criticisms and is currently debated in the ILO. Irish employers as well as the International Organisation of Employers, on the one hand, expressed their concern about the lack of clarity in the criteria used to identify "fully dependent" and "false" self-employed workers. They also contested the lack of employer consultation in determining those criteria – currently the law states that the government makes the decision in consultation with a trade union only.[24] On the other hand, those in favour of extending bargaining rights to self-employed workers experiencing power imbalance find the dependency criteria too stringent (a platform worker can work for more than two platforms and still be economically dependent). The condition of "no or minimal economic effect on the market" is also seen as a potentially insurmountable practical limit for workers (De Stefano and Aloisi, 2018[20]).

The Australian Competition and Consumer Act also allows businesses to collectively negotiate with suppliers or customers if the Australian Competition and Consumer Commission considers that collective bargaining would result in overall public benefits. The Australian Competition and Consumer Commission is currently undertaking a public consultation process regarding the creation of a class exemption for collective bargaining by small businesses (including independent contractors). A class exemption for collective bargaining would effectively provide a "safe harbour", so businesses that met eligibility criteria could engage in collective bargaining without breaching the competition law and without seeking approval from the Australian Competition and Consumer Commission.

Legal exemptions for specific categories of self-employed also exist in other OECD countries. In 1996, the US Department of Justice and Federal Trade Commission jointly ruled that physician networks which "collectively agree on prices or price-related terms and jointly market their services" do not infringe anti-cartel regulation provided that "they constitute 20% or less of the physicians in each physician specialty in the relevant geographic market" – 30% if they are part of non-exclusive network[25] – see DOJ/FTC (1996[21]).

In practical terms, targeted exemptions by sector or occupation are not always easy to define and apply; the list may need frequent updating, and the potential reversal of exemptions is a source of legal uncertainty for workers and businesses alike.[26]

In addition, as outlined before, small cartels can induce suboptimal outcomes for consumers. For that reason any exemptions aimed at granting bargaining rights to self-employed in situations of power imbalance should be based on a comprehensive costs-benefits analysis. One way to focus on workers in real need of access to collective bargaining would be to prioritise exemptions to those groups of self-employed workers that are likely to have few outside options.

Overall, granting some exemptions from the prohibitions to bargain to some self-employed in particular sectors or occupations is an option worth exploring and evaluating further.[27]

5.3. How can social partners enhance collective bargaining and workers' voice in non-standard and new forms of work?

Beyond legal obstacles, trade unions in most countries face a series of practical difficulties to organise and negotiate collective agreements on behalf of non-standard workers. These difficulties are partly linked to some of the intrinsic characteristics of non-standard work, such as frequent turnover and a limited attachment to a single workplace, and to the negative implications of these characteristics, e.g. reluctance to organise for fear of future retaliation, or a limited awareness of bargaining rights. Both the ILO Committee on Freedom of Association (CFA) and Committee of Experts on the application of Conventions and recommendations (CEACR) examined various cases and circumstances in which non-standard workers were restricted in the exercise of the right to freedom of association and the right to collective bargaining (ILO, 2016[22]).

In addition, in the past, some unions may have tended to focus primarily on standard employees.[28] Yet, there are now examples of unions which are making efforts in several OECD countries to reach out to new potential members, in particular non-standard and young workers, by adapting their strategies and changing their structure – see Benassi and Dorigatti (2014[23]) or Durazzi, Fleckenstein and Lee (2018[24]).

More generally, worker's voice arrangements and collective bargaining systems have demonstrated their ability to adjust to cover different and new types of employment relationships in a number of cases. The development of collective bargaining in the temporary work agency sector, for instance, illustrates how social partners have addressed challenging issues such as the regulation of triangular working relations – see Box 5.3 below and WEC and Uni Global (2018[25]). Instances of collective bargaining and workers' voice initiatives in the cultural and creative industry provide examples of how labour relations can develop in sectors with a high share of non-standard workers (Box 5.2). Both cases can provide inspiration for enhancing collective bargaining for workers in new forms of employment such as platform work, or for workers in the "grey zone" more generally.

5.3.1. Unions are diversifying their strategies to reach potential members

Trade unions are pursuing several strategies to extend their reach to non-standard forms of employment, and notably the most vulnerable ones. In most OECD countries, unions' main approach to reach new members has been to focus on challenging workers' status (i.e. reclassifying them as discussed before). For several decades, unions have been trying to bring non-standard workers under the umbrella of a standard contract through judicial reclassification – see Linder (1999[16]) for examples of reclassifications in the United States of grocery baggers, adult entertainment workers, drug testing subjects, "lessee" taxicab drivers, fruit pickers, and truck drivers.

More recently, the issue of classification has taken a new prominence with digital platforms. In the United Kingdom, for instance, the union GMB representing private hire drivers took the case of Uber drivers to an Employment Tribunal, which reclassified self-employed Uber drivers into workers covered by minimum wage legislation, and legal provisions for holiday pay and breaks.[29] Tribunals in Italy[30], France[31] and the Netherlands[32] recently took similar decisions. Moreover, even before these recent rulings, the risk of re-classification had led platforms in France and Italy to accept to open discussions or negotiations with recognised unions or workers' representatives (see Section 5.4.2).

Another strategy has been to lobby for public policy interventions restricting the use of non-standard forms of employment or enhancing the quality of these jobs at either national or local level. In Korea, for instance, trade unions and civil society organisations created the "Alliance for Nonstandard Workers" in 2000, which in 2006 succeeded in pushing the government to limit the use of fixed-term contracts and outlaw discrimination based on employment status[33] (Fleckenstein and Lee, 2018[26]).

Unions in some cases have also changed bargaining practices to ensure better outcomes for non-standard workers. For instance, the Korean Confederation of Trade Unions launched its "solidarity wage" initiative in 2013, which promoted lump-sum pay increases rather than percentage increases with the explicit aim of "closing the wage gap between standard and nonstandard workers" (Durazzi, Fleckenstein and Lee, 2018[24]).

Finally, unions are also exploring other ways to strengthen workers' voice, either by putting pressure on employers – as in the United States through "corporate campaigns" to gain recognition or conclude an agreement (McCartin, 2014[27]), or by designing new means of organisation and information-sharing for non-standard workers. For instance, the German metal-worker union *IG Metall*, the Austrian union confederation, together with the Austrian Chamber of Labour, and the Swedish trade union *Unionen*, launched one of the first cross-border union initiatives to support platform work with the website *faircrowd.work* which provides information and advice to platform workers and in particular ratings of working conditions on different online platforms based on surveys of workers (see Section 5.4.3 for a discussion on the use of new technologies to strengthen workers' rights).

Box 5.2. Collective bargaining in the creative sector

In the creative sector, where the incidence of freelance work is high, issues related to collective association and right to bargain are far from new. In the 1920s and 1930s, the status of writers in Hollywood production studios was being argued over. Studios initially favoured hiring writers as employees, who could not claim intellectual property rights under the Copyright Act of 1909 (Fisk, 2018[28]). But after the 1935 National Labour Relations Act had granted employees the right to organise, studios attempted to contest writers' unionisation right in courts. This led the National Labour Relations Board to confirm in 1937 that freelance writers, like writers under contract, had the right to bargain (Fisk, 2018, p. 186[28]). Over time, and with frequent detours through the courts, other crafts emulated the writers' example in forming their "guilds" and the phenomenon expanded beyond the film industry to radio, television and theatre. The current system is characterised by high union density and a bargaining culture akin to that of some corporatist European countries. Each guild engages in multi-employer bargaining in a way that resembles pattern bargaining – the Writers' Guild usually sets the mark for others (Kleingartner, 2001[29]). Studios now recognize unions as useful negotiating partners (Frommer, 2003[30]).

In other cases, access to collective bargaining for creative workers depended on the introduction of special statuses. A 1920 law allowed Austrian freelance journalists to collectively negotiate their fees (Fulton, 2018[31]). Changes to French labour law in the 1970s granted journalists and performing artists the status of employees for matters of collective bargaining. In Germany, the Collective Bargaining Act of 1949 was amended in 1974 to cover "employee-like" persons; criteria defining access to this status are relaxed for writers and journalists. In Denmark, since 2002, unions can bargain on behalf of journalists, scenographers, and graphic designers classified as "freelance wage earners".

Moreover, in 1980, the United Nations Educational, Scientific and Cultural Organization (UNESCO) adopted the Recommendation concerning the Status of the Artist, which "recognises the right of artists to be organised in trade unions or professional organisations that can represent and defend the interests of their members" (UNESCO, 1980[32]). In response to this recommendation, Canada passed in 1995 the *Status of the Artist Act*, which allows self-employed artists to be recognised and certified by the Canadian Industrial Relations Board (CIRB) as an artists' association with the exclusive right to negotiate collective agreements with producers.

When freelance creatives cannot access collective bargaining, trade unions and professional associations often offer advisory recommended minimum fees or rates lists (ILO, 2014[33]). For instance, the Dutch professional association of graphic designers (BNO) developed guidelines for minimum fees, and its Italian counterpart (AIAP) set up a fee guide. Guidelines also cover subjects such as work organisation and working hours. Collecting societies have been set up to handle the payment of royalties to writers, photographers, musicians or actors flowing from copyrights legislation (Gherardini, 2017[34]). Unions have set up lists to warn freelance workers about bad payers, e.g. the "ask-first" list set up by the British media and entertainment union BECTU in the film industry (Charhon and Murphy, 2016[35]).

Finally, co-operatives have emerged to provide solutions to some of the challenges faced by precarious freelance artists. Typically, these structures will formally hire artists, who thereby gain access to social security programmes – including unemployment insurance. Pooling resources, cooperatives also guarantee a regular pay to freelance artists, smoothing out the payment delays they frequently face. Workers are still entirely independent in finding and managing their projects. They pay a fee equivalent to a percentage of their earnings and can access a range of business services. Some of these cooperatives were set up by unions (in Denmark, the Danish association of professional technicians, *Teknisk Landsforbund*, created the Danish Technology and Design Freelance Bureau in 1992), while others emerged from private initiatives – such as the Brussels-based SMart created in 1998, see Section 5.4 (Gherardini, 2017[34]).

5.3.2. Unions are adapting their own organisation and structure

In several OECD countries, unions have opened their membership to non-standard workers, including the self-employed, and have started campaigning for the rights of platform workers. In Sweden, *Unionen*, a white-collar union, has been open to the self-employed since 1998. In Germany, *IG Metall*, the largest trade union amended its statutes in 2015 to allow the self-employed to join.

In other countries, unions have established separate branches specifically for the self-employed. According to a survey by the European Trade Union Confederation (Fulton, 2018[31]), the *Unión General de Trabajadores* (UGT) in Spain, the *Confederazione Italiana Sindacati Lavoratori* (CISL) in Italy and the *Federatie Nederlandse Vakbeweging* (FNV) in the Netherlands – where self-employment has experienced a very significant increase (Baker et al., 2018[36]) – are the most notable examples.

Furthermore, some unions have also set up specific branches or union-affiliated guilds for non-standard forms of work in general. Since 1998, the largest Italian union, *Confederazione Generale Italiana del Lavoro* (CGIL), has a specific branch *Nuove Identità di Lavoro* (NiDIL) devoted to non-standard workers. In the United States, the National Taxi Workers Alliance is the first member of the AFL-CIO, the US federation of trade unions, representing independent contractors. In Slovenia, *Sindikat prekarcev*, which is part of the main union confederation (ZSSS – Association of Free Trade Unions of Slovenia), has sought to represent "non-classical workers" since 2016.

Finally, some independent unions have been created, especially in the private hire or food delivery sectors. The most notable case is the one of the Independent Worker Union of Great Britain (IWGB), which is not affiliated to the Trade Union Confederation but has scored a series of significant victories in tribunals and negotiations with platforms. In Italy, food couriers have set up their own associations, which are not affiliated to any established union but are recognised as the counterparts to food-delivery platforms. In France, private hire drivers have set up an independent union. Similar developments have been observed in Belgium, Germany, the Netherlands and Spain (Vandaele, 2018[37]).

5.3.3. Employers' organisations are slowly adjusting

Employers, business and employers' organisations are the other key actors of collective bargaining. Chapter 2 has shown that membership to employer organisations (at least in those countries for which time series are available) shows a remarkable stability which sharply contrasts with the fall observed in trade union density.

Yet, according to the International Organisation of Employers (IOE, 2017, p. 46[38]), "employers and business organisations will be affected too [by ageing, globalisation and technological development] as the concept of dependent employment comes under discussion" and their role has to evolve from one of support to one of provider of advice, representation and concrete solutions.

ILO ACT EMP and IOE (2019[39]) also highlight the need for employers' organisations to improve their representativeness, reaching out to underrepresented or emerging economic actors, and in particular giving "a seat at the table" to small and medium enterprises. Accordingly, some existing employers' organisations are currently trying to expand their reach to new members. For instance, the Iberico American Federation of Young Entrepreneurs (FIJE), which covers 150 000 young entrepreneurs in 20 countries, aims to foster youth membership in employers' organisations through networking, training, and representation activity.

Moreover, employers' organisations face the rapid emergence of new sectors and industries based on new business models. The development of new businesses outside of the coordinated and organised framework of traditional employers' organisations creates a challenge for the latter, who have an interest in ensuring a level playing field for their members against new competitors who may circumvent existing labour regulations. In addition, as these new industries emerge, traditional organisations are challenged

by the fact that companies can choose to associate through more informal arrangements, based on temporary projects or issues, to represent their interests, particularly in highly local labour markets. Efforts to reach out to underrepresented companies by employers' organisations include the development of new services and tailored solutions for companies whose business models does not (yet) fall under a clear-cut regulatory framework (IOE, 2017[38]; ILO ACT EMP and IOE, 2019[39]).

Reaching a balance between the needs of their historical members and those of the new digital platform companies, however, may in some cases not be an easy challenge for traditional employers' organisations (Johnston and Land-Kazlauskas, 2018[40]). For instance, platforms often see themselves as a matchmaker, not as an employer.[34] This makes identifying the bargaining counterpart more challenging.

Yet, the experience with temporary work agencies (see the discussion in Box 5.3) shows that this is not an insurmountable obstacle if there is a will to negotiate or a threat of public intervention in the absence of an agreement. In Italy, for instance, a group of major food delivery companies announced in July 2018 the creation of a new employers association to represent their business and negotiate with the government and the couriers associations. In Slovakia, Uber has become a member of the National Union of Employers and the professional association of information technology (IT) companies (ITAS).

Beyond the difficulty of organising new entrants on the employers' side, traditional employers' organisations are also threatened by the weakening of workers' representation. In the Netherlands, AWVN, an employers' association, released a report in 2018 where it expressed its concerns about the sustainability of the Dutch bargaining model in the absence of strong workers' involvement (AWVN, 2018[41]). AWVN proposed two options to strengthen the direct representation of employees. The first option is to let employees elect their representatives in the bargaining process at company or sectoral level (currently unions represent workers without a formal election). For each vote, the union would receive a small fee, e.g. EUR 10, as a compensation for the costs of bargaining. The second option is to offer newly hired employees a trial union membership for a period of one year for free or for a sharply reduced contribution. Employers would encourage this by providing extensive information when hiring people and unions would offer a reduced membership rate. To determine which option works better, AWVN has proposed to trial them in a number of companies.

Box 5.3. Collective bargaining and temporary agency work

Including non-standard workers and platform workers in particular in collective bargaining requires some degree of organisation among workers but also a clear identification of the employer. In the case of a triangular relationship such as the one between a contractor, a platform and a customer, it may be difficult to identify the real employer, and consequently, the bargaining counterpart. While platforms are a recent development and, so far, limited in scope, triangular employment relationships are not new. Temporary work agency (TWA) workers are hired by an agency and assigned for work into a user firm (OECD, 2013[42]). However, a key difference between TWAs and platforms is that agency workers have an employment contract, while most platform workers are (rightly or wrongly) classified as self-employed (WEC and Uni Global, 2018[25]).

In the early stages of their development, TWA were considered as disruptive as the platforms of today and were highly contested or even banned in a number of countries. Governments intervened to regulate the sector and collective agreements now represent an important means of regulation of this industry in many OECD countries (Eurofound, 2008[43]) despite very low levels of unionisation. Today collective agreements covering TWA workers are negotiated in several OECD countries (see Table 5.1). In some countries, agency work is simply included in the reference sectoral (or firm-level) collective agreement applicable to the user firm (for instance, in Finland or Spain). In other countries, specific agreements are signed directly with temporary work agencies (for instance, in Australia or Italy), either at the industry level or within agencies.

In Europe, the European directive on temporary agency work regulating TWAs introduced the principle of equal treatment with workers in the user company in order to establish a level-playing field. As the directive opened the possibility for collective agreements to diverge from a blanket equal treatment approach, provided certain quality conditions are respected such as the right to an adequate level of protection, TWAs felt encouraged by the law to engage in collective bargaining (IDEA Consult, 2015[44]). Hence, in several European countries, collective agreements are now used as a tool to co-define the regulation of the sector. Notably, in Germany labour law allows to derogate from the principle of equal pay when agency workers are on an open-ended contract with the agency and paid fully in-between assignments. However, until 2008 the responsibility for regulating agency work laid with works councils and not unions or collective agreements. Therefore, the German metal-worker union IG Metall launched a campaign to recruit agency workers and, at the same time, set a common bargaining floor across companies. This campaign led to an industry-wide agreement on equal pay for agency workers in the steel sector in 2010 followed by a collective agreement for the metal and electronics industry in 2012 (Benassi, 2016[45]). Collective agreements covering TWA work are also used to establish specific funds for training, pensions and sickness leave (as in Belgium, France, Italy and the Netherlands), which are often more generous than those offered to employees with a fixed-term contract. Finally, collective agreements in the TWA industry have been used to set up specific bodies to protect health and safety at work for workers in the agency sector such as the Dutch "*Stichting Arbo Flexbranche*" (STAF).

Table 5.1. Collective agreements for temporary work agency workers

	Country					
None or very rare	Canada	Czech Rep.	Japan	Latvia	Mexico	United States
Covered by an agreement if applicable to user firm	Colombia Estonia Finland	Greece Hungary Iceland	Ireland Korea Lithuania	New Zealand Poland Portugal	Slovenia Spain Slovak Rep.	United Kingdom
Covered by an agreement with temporary work agency	Australia Austria[1] Belgium	Chile Denmark France	Germany Israel Italy	Luxembourg Netherlands	Norway Sweden	Switzerland Turkey

1. In Austria, the specific agreement for temporary agency workers applies only if the provisions in the agreement covering the user firm are less favourable for workers.
Source: OECD Policy Questionnaires on Collective Bargaining.

5.3.4. A few innovative agreements have been signed in Europe

Unions' engagement with platforms on behalf of non-standard workers has paid off in some cases, with the signature of a few collective agreements in Europe. In Sweden, for instance, the transportation start-up Bzzt has signed an agreement with the Swedish Transport Workers union (Johnston and Land-Kazlauskas, 2018[40]). In Denmark Hilfr.dk, a platform for private home cleaning services, signed a collective agreement in April 2018 with the trade union 3F. The agreement grants platform workers sick pay, holiday allowance and a contribution to their pension.

In Austria, the transport and services union *vida* announced in April 2017 the creation of a work council (*Betriebsrat*) for the couriers of Foodora, which would be able to negotiate a collective agreement on working conditions. In April 2018, an agreement establishing a European Work Council at Delivery Hero, a publicly listed online food-delivery service based in Berlin (Foodora is owned by Delivery Hero), was signed. It includes a provision to have employee representatives on the supervisory board.

5.4. Increased pressure and new challenges have led to the emergence of non-traditional initiatives

The erosion of union membership and collective bargaining coverage, as well as the insufficient representation of some types of workers and businesses have led to the emergence of other initiatives by new actors such as platforms as well as non-traditional forms of labour organisations aimed at defending workers' interests. In some respects, new forms of labour movements can be considered as functional equivalents to "traditional" unions by helping to reduce information asymmetries, collectively mobilising workers and potentially increasing bargaining power as well as supporting litigations and class actions (Silberman and Irani, 2016[46]). However, a closer look reveals that they also serve different, non-bargaining related purposes and have different organisational structures.

5.4.1. A new mutualism

Notable examples of non-traditional organisations to represent workers' collective interests may be found in the United States with the development of Worker Centers[35] (representing low-wage, and mainly immigrant workers) or the Freelancers Union (representing high skilled independent contractors).[36] Similar developments have been observed in Canada with the Freelance Union representing self-employed media and communications workers or the Workers' Action Centre, which advocates on behalf of workers in non-standard forms of employment, in Ontario as well as in Europe, where worker co-operatives have developed. These initiatives echo in some respects the spirit of mutual organisations that in the 19th century represented the first form of work organisation and provided workers with basic insurances and mutual help.[37]

These organisations are legally distinct from traditional unions but there may be a formal or informal connection (Manheim, 2017[47]). Worker Centers in the United States tend to have both different cultures and fewer legal restrictions on their activities than traditional unions and thus are viewed by some as "organising laboratories" where innovative strategies can be formed and tested (Fine, 2006[48]). While the traditional union movement has had mixed views about these non-union worker organisations, it has increasingly embraced them and has invited some to join the AFL-CIO, the US federation of trade unions (Gaus, 2011[49]).

One strategy Worker Centers have used to organise workers has been creating and/or enforcing legal workplace standards.[38] Worker Centers have also engaged in direct action against employers, often through strikes.[39] In addition, Worker Centers have used consumer pressure throughout the supply chain to change employer behaviour.[40] Service delivery, from language classes for recent immigrants to low-cost

portable benefits provided for independent contractors by the Freelancers Union, are another way Worker Centers and similar non-union workers' organisations respond to workers' needs.

These organisations have also used their political resources to push several pieces of legislation, leading many companies to raise wages and standards (Fine, 2005[50]). However, for the most part, this model has struggled to achieve scale and sustainable funding (Strom, 2016[51]).

Another type of actor has emerged in a number of countries: co-operatives organising self-employed workers and providing them with a range of services. One of the most established is SMart, which was founded in Belgium in 1998 as an association of creative and cultural freelance workers and then transformed itself into a non-profit co-operative (Graceffa, 2016[52]). SMart is currently present in nine European countries and has extended to other sectors beyond creative work. In exchange for a fee, it provides self-employed workers with a wide range of services, including help with invoicing and the declaration of income; getting paid as an employee (and therefore gaining access to social protection); debt collection; salary advancement (through a mutual guarantee fund); and access to training and co-working spaces.

SMart is based on a participatory process: all members are invited to participate in the general assembly, and all profits are reinvested. SMart, and other similar workers cooperatives, do not usually[41] bargain on behalf of their members. Occasionally they publicly voice the concerns of freelancers and advocate on their behalf, but this is not their primary goal. The model proposed by SMart is not uncontroversial and has been criticised by some unions as it "legitimises grey zones" instead of fighting them (Xhauflair, Huybrechts and Pichault, 2017[53]).

Setting aside their non-profit nature, this type of co-operative is akin to for-profit umbrella companies which process invoices and pool risks among freelancers, offering them sick, maternity and holiday pay as well as legal counselling. Such for-profit umbrella companies exist in several countries and notably in Belgium, France ("*portage salarial*"), the Netherlands ("payroll company"), Norway (*"Egenanstillingsförrettning"*), Sweden ("*Egenanställningsföretag"*), the United Kingdom and the United States (Arvas, 2011[54]) and they cover a wide range of individual professionals in many sectors.

5.4.2. Platforms are also taking some action

In addition to worker-led initiatives, some platforms have also started taking action to address platform workers' limited access to voice and collective bargaining. As highlighted before, the risk of re-classification as well as government initiatives have led some platforms to enter into negotiations with worker representatives in several countries.[42] In Italy, following a government threat of worker reclassification by decree in summer of 2018, food delivery platforms have agreed to start negotiating with rider associations over working conditions. Although these negotiations have not yet led to concrete results, the example mentioned above of the Danish platform Hilfr.dk shows that such negotiations can sometimes lead to agreements.

Beyond formal bargaining, platforms have taken initiatives aimed at giving workers the possibility to express their concerns. Uber, for example, embraced the creation of the New York City Independent Drivers' Guild (IDG).[43] The IDG cannot negotiate on behalf of drivers, but it allows channelling their concerns through monthly meetings with the company's management.

Following government's engagement with platforms to address some of the issues related to platform work, the latter have taken some initiatives. In France, a legal provision encouraging platforms to publish "social responsibility charters" online and as appendixes to workers' contract is currently being discussed. Such charters would state the platforms' policy on a variety of issues including the prevention of occupational risks, professional development, measures to guarantee a "decent income" to workers, as well as rules framing the communication of changes to working conditions. Along the same lines, but

based on the initiative of a crowdworking platform, a code of conduct has been established in Germany and signed in 2017 by eight Germany-based platforms.

Platforms' initiatives have thus tended to develop outside of the realm of traditional collective bargaining institutions rather than within them. For instance while the representation of platforms in traditional employer organisations is still limited, dedicated associations have emerged in some countries such as the *Deutscher Crowdsourcing Verband* in Germany. Rather than engaging in bargaining with platform workers, some platforms have focused on offering solutions to emerging issues (around e.g. occupational insurance) while preventing the risks of re-classification. This has taken various forms, from setting up partnerships with professional associations (as Uber has done with the Association of Independent Professionals and the Self-Employed in the United Kingdom) offering workers preferential deals on various goods and services, to providing free or discounted occupational insurance covers.

This approach, exchanging benefit provision for protection against reclassification is advocated by Uber which suggests the creation of legislative "safe harbours", "to ensure that the provision of benefits or training could not be used as a factor in employment classification claims" (Uber, 2018[55]). In other words, platform-led initiatives tend to revolve around direct benefit provision driven by the risk of reclassification. However, this approach raises the question of co-ordination between different platforms and the portability of workers' protection, as these initiatives are taken at the level of individual platforms. They also raise the question of the unilateral nature, since they are not the result of dialogue between different stakeholders (including workers).

5.4.3. New technologies can also strengthen workers' voice

The digital technology used by platforms can also be mobilised to organise workers and improve job quality. A good example of this is Turkopticon, an all-volunteer website that started as a class project by two computer scientists turned labour organisers (Silberman and Irani, 2016[46]). For the past 10 years, Turkopticon has allowed workers on Amazon Mechanical Turk, a platform where online workers are hired for small tasks, to review the "requesters" (individuals or companies posting tasks to be executed by workers). It helps workers to identify "bad" requesters, who tend to pay late or never, and to find good ones.[44] Other websites facilitating the organisation of workers include Coworker.org, which helps workers to create company-specific networks to collect data and to aggregate their demands into coherent campaigns.

Instant messaging applications, social media groups, online fora as well as online polls play a very important role for workers who do not share a common physical workplace and lack the ability to discuss work issues face-to-face with each other. These technologies allow them to exchange information about clients and tasks, warn each other about scams, discuss best practices and set informal price norms, and to co-ordinate actions. It also provides community support. Such online communities of remote gig workers sometimes become linked to institutionalised unions, but they also exist in contexts lacking an institutionalised labour movement – see e.g. Wood, Lehdonvirta and Graham (2018[56]) on online communities of micro-workers and online freelance workers in Nigeria, South Africa, Kenya, the Philippines, Malaysia and Vietnam.

Technological innovations also open up new possibilities to protect the relatively weaker party in an employment/contractual relationship. For instance, the platform Bitwage uses Blockchain technology[45] to make international payments of remote contractors faster and more trustworthy.

Finally, the same algorithms, big data and basic AI tools which are used by large companies to manage human resources could also be used by unions to mine information about their members and guide their actions. In many OECD countries, business registry data are also used by trade unionists to gauge how companies are performing when deciding whether to ask for wage increases or for the negotiation of a

new collective agreement. New data and statistical tools would allow unions to use information on the state of business faster and more efficiently.[46]

In other words, some technological innovations represent an opportunity to facilitate collective organisation among non-standard workers. One way in which governments could help social partners to seize this opportunity would be through the setting up of common knowledge platforms to share practices and experiences among actors.

5.4.4. Non-traditional actors can complement but not substitute for social partners

While non-traditional workers' organisations can help improve working conditions for a greater number of non-standard workers, they cannot completely substitute for labour unions. Differences in new actors' prerogatives compared to those of traditional unions include: i) the legal ability to bargain collectively on behalf of their members and to sign an agreement; ii) the ability to guarantee the enforcement of this agreement; and iii) the benefit (in some countries) of information and consultation rights that reduce information asymmetries vis-à-vis employers, and play and instrumental role in the definition and strengthening of unions' bargaining position. Non-traditional organisations can engage in actions such as boycotts, petitions, and thus strengthen workers' voice; but this might not lead to an agreement.

Further, in some cases, non-traditional actors are not even interested in doing so. These organisations are often professional associations, which are created to provide services, to coalesce individuals around a common identity and to help with networking, but not necessarily to negotiate nor sign formal collective agreements.

However, they might help bridge some of the perceived mismatch between the professional identity of independent workers and traditional unions (King, 2014[57]). Saundry, Stuart and Antcliff (2012[58]) have shown how freelance networks in the British audio-visual industry were more successful than unions in creating a sense of identity and community among freelance workers, but lacked the resources to achieve industrial relations successes and the legal framework to sign and guarantee the validity and binding nature of collective agreements. By "linking networks to reservoir of expertise and influence" (Saundry, Stuart and Antcliff, 2012, p. 282[58]), unions were able to build on them to secure progress for these workers. More generally, new forms of workers' organisations can coalesce non-standard workers whom traditional unions have a harder time reaching out to, for practical and historical reasons. In that sense, these new initiatives can complement rather than substitute for traditional actors. The combination of efforts from both traditional and new actors is necessary to fully address the challenges posed by the evolving world of work, and should be encouraged.

Conclusions

While the practice of collective bargaining reflects cultural and social norms as well as institutional variation and therefore differs considerably across OECD countries, this chapter argues that it can play an important role in addressing some of the labour market challenges driven by technological and demographic changes and increased global competition.

When social partners work co-operatively and anticipate new challenges, collective bargaining can support and usefully complement public policies. This is particularly the case for the regulation of new forms of work, the anticipation and meeting of skills needs, and the design of measures to help workers with the transition to new jobs. Collective bargaining, at both sectoral and firm level can also help companies to adapt, through tailor-made agreements and adjustments in the organisation of work to meet their specific needs. Finally, social dialogue can help workers to make their voice heard in the design of national, sectoral or company-specific strategies and ensure a fair sharing of the benefits brought by new technologies and more globalised markets.

The contribution of collective bargaining to shaping the future of work crucially depends on workers and firms being able and willing to associate and negotiate mutually satisfying binding agreements. However, since the 1980s bargaining coverage and membership of trade unions have declined sharply in most countries. The rise of different forms of non-standard work in a number of OECD countries discussed in OECD (2019[17]) poses an additional challenge to collective bargaining, as non-standard workers are less likely to be unionised than standard workers.

Unions are trying to expand their membership to workers in non-standard forms of employment and develop new strategies to negotiate with employers. Meanwhile, new forms of collective organisation are emerging, although they tend to serve different purposes and have different organisational structures. Employers' organisations are also having to deal with the development of new forms of business and the weakening of their traditional counterparts. The examples of successful collective agreements in the temporary work agency sector and in the cultural and creative industries, even in countries where unions have generally low membership, show that collective bargaining can adjust to different and new types of employment relationships.

Legislation may also need to change to take account of the development of a wider variety of forms of employment and business, which are very different to those of 50 years ago when many of the current OECD bargaining systems took form. It is therefore important to address the issue of worker classification to ensure that employment contracts match the real nature of the employment relationship. In addition, regulators and enforcement authorities need to reflect on how workers in the grey area between dependent and self-employment and those self-employed in situations of strong power imbalance vis-à-vis their client/employer can be empowered to negotiate and organise collectively.

This chapter has presented several national policies and initiatives taken by employers, unions and new forms of workers' organisation to adapt to the challenges arising from the outlook for the future of work. Even though, for most of them, rigorous evaluation is lacking, these initiatives can still provide useful inspiration in other contexts.

References

Aloisi, A. (2018), "Non-standard workers and collective bargaining: Legal challenges, practical difficulties, and successful responses", mimeo. [15]

Ankersmit, L. (2015), *Albany revisited: The Court directs NCA to carry a more social tune*, European Law Blog, https://europeanlawblog.eu/tag/c-41313-fnv-kunsten-informatie-en-media/ (accessed on 21 November 2018). [19]

Arthurs, H. (1965), "The Dependent Contractor: A Study of the Legal Problems of Countervailing Power", *The University of Toronto Law Journal*, Vol. 16/1, p. 89, http://dx.doi.org/10.2307/825096. [66]

Arvas, F. (2011), *Umbrella Companies in Europe. A study on their growth behaviors and job-creation.*, MBA Henley Business School. [54]

AWVN (2018), *Wegwerkzaamheden. Tien ideeën voor de wereld van werk - AWVN*, AWVN, Den Haag. [41]

Baker, M. et al. (2018), "To what extent do policies contribute to self-employment?", *OECD Economics Department Working Papers*, No. 1512, OECD Publishing, Paris, https://dx.doi.org/10.1787/74c044b1-en. [36]

Benassi, C. (2016), *Extending solidarity rather than bargaining concessions: the IG Metall campaign for agency workers*, ETUI Policy Brief No. 1/2016, Brussels. [45]

Benassi, C. and L. Dorigatti (2014), "Straight to the Core - Explaining Union Responses to the Casualization of Work: The IG Metall Campaign for Agency Workers", *British Journal of Industrial Relations*, Vol. 53/3, pp. 533-555, http://dx.doi.org/10.1111/bjir.12079. [23]

Benassi, C. and T. Vlandas (2016), "Union inclusiveness and temporary agency workers: The role of power resources and union ideology", *European Journal of Industrial Relations*, Vol. 22/1, pp. 5-22, http://dx.doi.org/10.1177/0959680115589485. [14]

Berryhill, J., T. Bourgery and A. Hanson (2018), "Blockchains Unchained: Blockchain Technology and its Use in the Public Sector", *OECD Working Papers on Public Governance*, No. 28, OECD Publishing, Paris, https://dx.doi.org/10.1787/3c32c429-en. [65]

Charhon, P. and D. Murphy (2016), *The Future of Work in the Media, Arts & Entertainment Sector: Meeting the Challenge of Atypical Working*, Euro FIA, EFJ, FIM and UNI MEI, https://www.fim-musicians.org/wp-content/uploads/atypical-work-handbook-en.pdf (accessed on 26 October 2018). [35]

Creighton, B. and S. McCrystal (2016), "Who is a 'Worker' in International Law?", *Comparative Labor Law and Policy Journal*, Vol. 37/3, pp. 691-725. [68]

Daskalova, V. (2018), "Regulating the New Self-Employed in the Uber Economy: What Role for EU Competition Law?", *German law journal*, Vol. 19/3, pp. 461-508. [18]

De Stefano, V. (2018), ""Negotiating the algorithm": Automation, artificial intelligence and labour protection", *Employment Working Paper*, No. 246, ILO, Geneva. [9]

De Stefano, V. and A. Aloisi (2018), "Fundamental Labour Rights, Platform Work and Human-Rights Protection of Non-Standard Workers", in Bellace, J. and B. ter Haar (eds.), *Labour, Business and Human Rights Law*, Edward Elgar Publishing Ltd., https://dx.doi.org/10.2139/ssrn.3125866. [20]

DOJ/FTC (1996), *Statements of Antitrust Enforcement Policy in Health Care*, https://www.ftc.gov/sites/default/files/attachments/competition-policy-guidance/statements_of_antitrust_enforcement_policy_in_health_care_august_1996.pdf (accessed on 21 November 2018). [21]

Drahokoupil, J. and A. Piasna (2019), *Work in the platform economy: Deliveroo riders in Belgium and the SMart arrangement*, ETUI. [64]

Dube, A. et al. (forthcoming), "Monopsony in Online Labor Markets", *American Economic Review: Insights*. [63]

Durazzi, N., T. Fleckenstein and S. Lee (2018), "Social Solidarity for All? Trade Union Strategies, Labor Market Dualization, and the Welfare State in Italy and South Korea", *Politics & Society*, Vol. 46/2, pp. 205-233, http://dx.doi.org/10.1177/0032329218773712. [24]

Engblom, S. (2017), "Employment Protection, Collective Bargaining, and Labour Market Resilience - The Swedish Transition Agreements", mimeo. [12]

Eurofound (2008), *Temporary agency work and collective bargaining in the EU*, European Foundation for the Improvement of Living and Working Conditions, Dublin. [43]

European Commission (2019), "Sustainability and governance: the role of social dialogue", in *Employment and Social Developments in Europe*, Publications Office of the European Union, Luxembourg. [2]

European Commission (2018), *Employment and Social Developments in Europe 2018*, Publications Office of the European Union, Luxembourg. [1]

Fine, J. (2006), *Worker centers : organizing communities at the edge of the dream*, ILR Press/Cornell University Press. [48]

Fine, J. (2005), "Community Unions and the Revival of the American Labor Movement", *Politics & Society*, Vol. 33/1, pp. 153-199, http://dx.doi.org/10.1177/0032329204272553. [50]

Fisk, C. (2018), "Hollywood Writers and the Gig Economy", *University of Chicago Legal Forum*, Vol. 2017/Article 8, https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1595&context=uclf (accessed on 26 October 2018). [28]

Fleckenstein, T. and S. Lee (2018), "Organised Labour, Dualisation and Labour Market Reform: Korean Trade Union Strategies in Economic and Social Crisis", *Journal of Contemporary Asia*, pp. 1-21, http://dx.doi.org/10.1080/00472336.2018.1536762. [26]

Freeman, R. and J. Medoff (1984), *What do unions do?*, Basic Books, New York. [5]

Frommer, G. (2003), "Hooray for... Toronto? Hollywood, collective bargaining, and extraterritorial union rules in an era of globalization", *Journal of Labor and Employment Law*, Vol. 6/1, pp. 55-120, https://www.law.upenn.edu/journals/jbl/articles/volume6/issue1/Frommer6U.Pa.J.Lab.%26Emp.L.55(2003).pdf (accessed on 26 October 2018). [30]

Fulton, L. (2018), *Trade Unions protecting self-employed workers*, ETUC, Brussels. [31]

Gaus, M. (2011), *Taxi Workers Become a Union—Officially*, Labor Notes, http://labornotes.org/blogs/2011/10/taxi-workers-become-union%E2%80%94officially (accessed on 20 November 2018). [49]

Gherardini, A. (2017), *So many, so different! Industrial relations in the creative sectors*, IR-CREA report for the European Commission. [34]

Graceffa, S. (2016), *Refaire le monde...du travail : une alternative à l'ubérisation de l'économie*, Éditions Repas. [52]

Haucap, J., U. Pauly and C. Wey (2001), "Collective wage setting when wages are generally binding. An antitrust perspective", *International Review of Law and Economics*, Vol. 21/3, pp. 287-307, http://dx.doi.org/10.1016/s0144-8188(01)00061-8. [62]

Horowitz, S. (2013), *What is New Mutualism?*, Freelancers Union, https://blog.freelancersunion.org/2013/11/05/what-new-mutualism/ (accessed on 20 November 2018). [61]

IDEA Consult (2015), *How temporary agency work compares with other forms of work*. [44]

ILO (2019), *Work for a brighter future – Global Commission on the Future of Work*, International Labour Office, Geneva. [3]

ILO (2016), *Non-standard employment around the world: Understanding challenges, shaping prospects*, International Labor Office, Geneva. [22]

ILO (2014), *Employment relationships in the media and culture industries*, International Labour Office, Sectoral Activities Department,, http://www.ilo.org/publns. (accessed on 25 October 2018). [33]

ILO ACT EMP and IOE (2019), *Changing Business and Opportunities for Employer and Business Organizations*, ILO Bureau for Employers' Activities and International Organization of Employers, Geneva. [39]

IOE (2017), *IOE Brief: Understanding the future of work*, IOE, Geneva. [38]

Johnston, H. and C. Land-Kazlauskas (2018), "Organizing On-Demand: Representation, Voice, and Collective Bargaining in the Gig Economy", *Conditions of Work and Employment Series*, No. 94, ILO. [40]

Kleingartner, A. (2001), "Collective Bargaining: Hollywood Style", *New Labor Forum*, Vol. 9/Fall - Winter, pp. 113-121, https://www.jstor.org/stable/pdf/40342321.pdf?refreqid=excelsior%3A2d94f2167ffaf020cc4546379b36ec73 (accessed on 26 October 2018). [29]

Linder, M. (1999), "Dependent and Independent Contractors in Recent U.S. Labor Law: An Ambiguous Dichotomy Rooted in Simulated Statutory Purposelessness", *Comparative Labor Law & Policy Journal*, Vol. 21/1. [16]

Manheim, J. (2017), *The Emerging Role of Worker Centers in Union Organizing: An Update and Supplement*, U.S. Chamber of Commerce, Washington, D.C. [47]

McCartin, J. (2014), *Bargaining for the Future: Rethinking Labor's Recent Past and Planning Strategically for Its Future a report by initially drafted with*, Kalmanovitz Initiative for Labor and the Working Poor, Georgetown University. [27]

Mettling, B. (2015), *Transformation numérique et vie au travail*. [8]

Moore, P., M. Upchurch and X. Whittaker (2018), *Humans and Machines at Work: Monitoring, Surveillance and Automation in Contemporary Capitalism*, Palgrave Macmillan, London. [10]

OECD (2019), *Getting Skills Right: Making adult learning work in social partnership*, OECD, Paris, http://www.oecd.org/employment/emp/adult-learning-work-in-social-partnership-2019.pdf. [13]

OECD (2019), *OECD Employment Outlook 2019: The Future of Work*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9ee00155-en. [17]

OECD (2019), *Policy Responses to New Forms of Work*, OECD Publishing, Paris, https://doi.org/10.1787/0763f1b7-en. [60]

OECD (2018), "Back to work: lessons from nine countries case studies of policies to assist displaced workers", in *OECD Employment Outlook 2018*, OECD Publishing, https://doi.org/10.1787/empl_outlook-2018-8-en. [4]

OECD (2018), "The role of collective bargaining systems for good labour market performance", in *OECD Employment Outlook 2018*, OECD Publishing, Paris, https://dx.doi.org/10.1787/empl_outlook-2018-7-en. [7]

OECD (2016), *OECD Employment Outlook 2016*, OECD Publishing, Paris, https://dx.doi.org/10.1787/empl_outlook-2016-en. [6]

OECD (2015), *Back to Work: Sweden: Improving the Re-employment Prospects of Displaced Workers*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264246812-en. [11]

OECD (2014), "Non-regular employment, job security and the labour market divide", in *OECD Employment Outlook 2014*, OECD Publishing, Paris, https://dx.doi.org/10.1787/empl_outlook-2014-7-en. [67]

OECD (2013), *OECD Employment Outlook 2013*, OECD Publishing, Paris, http://dx.doi.org/10.1787/empl_outlook-2013-en. [42]

Ott, E. (ed.) (2014), *Protecting and Representing Workers in the Gig Economy: the Case of the Freelancers Union*, Cornell University Press. [57]

Prassl, J. (2018), *Collective Voice in the Platform Economy: Challenges, Opportunities, Solutions*, ETUC, https://www.etuc.org/sites/default/files/publication/file/2018-09/Prassl%20report%20maquette.pdf (accessed on 10 December 2018). [59]

Saundry, R., M. Stuart and V. Antcliff (2012), "Social Capital and Union Revitalization: A Study of Worker Networks in the UK Audio-Visual Industries", *British Journal of Industrial Relations*, Vol. 50/2, pp. 263-286, http://dx.doi.org/10.1111/j.1467-8543.2011.00850.x. [58]

Silberman, M. and L. Irani (2016), "Operating an employer reputation system: Lessons from Turkopticon, 2008-2015'", *Comparative Labor Law & Policy Journal*, Vol. 37/3. [46]

Strom, S. (2016), *Organizing's Business Model Problem*, The Century Foundation, https://tcf.org/content/report/organizings-business-model-problem/?agreed=1&agreed=1 (accessed on 20 November 2018). [51]

Uber (2018), *White Paper on Work and Social Protection in Europe*, https://ubernewsroomapi.10upcdn.com/wp-content/uploads/2018/02/Uber-White-Paper-on-Work-and-Social-Protections-in-Europe.pdf (accessed on 10 December 2018). [55]

UNESCO (1980), *Recommendation concerning the Status of the Artist*. [32]

Vandaele, K. (2018), "Will Trade Unions Survive in the Platform Economy? Emerging Patterns of Platform Workerss Collective Voice and Representation in Europe", *SSRN Electronic Journal*, http://dx.doi.org/10.2139/ssrn.3198546. [37]

WEC and Uni Global (2018), *Online Talent Platforms, Labour Market Intermediaries and the Changing World of Work*, Independent study prepared by CEPS and IZA for the World Employment Confederation-Europe and UNI Europa, Brussels. [25]

Wood, A., V. Lehdonvirta and M. Graham (2018), *Workers of the Internet Unite? Online Freelancer Organisation Among Remote Gig Economy Workers in Six Asian and African Countries*, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3211803 (accessed on 28 November 2018). [56]

Xhauflair, V., B. Huybrechts and F. Pichault (2017), "How Can New Players Establish Themselves in Highly Institutionalized Labour Markets? A Belgian Case Study in the Area of Project-Based Work", *British Journal of Industrial Relations*, Vol. 56/2, pp. 370-394, http://dx.doi.org/10.1111/bjir.12281. [53]

Annex 5.A. Union density and forms of employment: Sources and additional material

In Figure 5.1, standard and non-standard workers correspond, as closely as possible, to the categories displayed in Figure 5.2 with the notable exception of part-time jobs: in general, standard employment refers to wage and salary workers (both full-time and part-time) with an open-ended contract; non-standard employment includes, as far as possible, casual or occasional work, job provided by a temporary work agency or through a prime contractor enterprise (which subcontract their employees to a third part), independent contractors, interns or apprentices, self-employed without autonomy and, for some emerging economies, informal employment.

However, given the heterogeneity of the data sources used (see Annex Table 5.A.1), the scope of questions available relating to the contractual forms of employment, the nature of the job and of union affiliation (generally restricted only to workers identified as employees), non-standard forms of employment do not necessary cover all these categories.

In four countries (Canada, Estonia, Hungary and Korea), the data available do not allow to go beyond the simple distinction between permanent and temporary employment as defined in the OECD Employment Database (for further details see specific definitions in Table 3 of the sources, coverage and definitions of Labour Force Statistics in OECD countries)[47] and do not include dependent self-employed.

Temporary work agency workers (in addition to fixed-term contracts or project workers and sometimes interns and apprentices) are clearly identifiable for seven countries (Chile, Finland, France, Germany, Ireland, Sweden and the United Kingdom) and provide a better definition of the open-ended contract category, which in this case excludes all potential temporary work agency workers working under an open-ended contract.

The United States is a particular case due to the use of an alternative definition of temporary jobs based on the third definition of the contingent workers (as defined by the BLS). Contingent workers include wage and salary workers not expecting their jobs to last and the incorporated self-employed (without paid employees) if they expect their employment to last for an additional year or less. In addition to this criterion, alternative employment arrangements (temporary work agency workers, fixed-term contracts, project contracts and independent contractors) are included as such irrespective of the excepted duration of their contract.

The informal employment, in addition to the listed categories above, constitute an independent category for some emerging economies. In the case of Colombia, this category covers all workers without a written contract and, for Mexico, all workers classified as in an informal job (based on the official definition TIL1 provided by the INEGI).

The European Social Survey (ESS) allows identifying the self-employed without autonomy as those without full control on the organisation of the work to be done or the decisions about the activities of the organisation.

The Australian survey Characteristics of Employment (COE) allows identifying the self-employed without autonomy as independent contractors who are not able to have more than one active contract, to subcontract their own work and are under the authority of somebody else on how to do their work.

Annex Table 5.A.1. Non-standard forms of employment included in Figure 5.1.

Country	Source	Contract of limited duration	FTC	Project contracts	TWA	Occasional workers	Independent contractors	Informal workers	Self-employed without autonomy
Australia	COE[2]		●	●	●	●			●
	HILDA		●		●	●			●
European countries[1]	ESS	●							●
Canada	LFS	●							
Chile	CASEN		●		●				
Colombia	GEIH		●		●			●	
Estonia	LFS[2]	●							
Finland	FWLB		●		●				
France[3]	SRCV		●		●				
Germany[3]	SOEP		●		●				
Hungary	LFS[2]	●							
Ireland[3]	QHNS		●		●				
Korea	EAPS[2]	●							
	KLIPS		●	●	●	●	●		
Mexico	ENOE		●	●				●	
Sweden[3]	LFS[2]		●	●	●				
United Kingdom[3]	LFS		●		●				
United States	CPS		●	●	●	●	●		

TWA: temporary work agency workers; CASEN: Encuesta de Caracterización Socioeconómica Nacional; COE: Characteristics of Employment Survey ; CPS: Current Population Survey, May Supplement ; EAPS: Economically Active Population Survey; ENOE: Encuesta Nacional de Ocupación y Empleo; ESS: European Social Survey; FWLB: Finnish Working Life Barometer; GEIH: Gran Encuesta Integrada de Hogares; HILDA: Household, Income and Labour Dynamics in Australia; KLIPS: Korean Labor and Income Panel Study; LFS: Labour Force Survey; QHNS: Quarterly National Household Survey; SOEP: German Socio-Economic Panel; SRCV: Enquête statistique sur les ressources et conditions de vie.

1. Austria, Belgium, the Czech Republic, Denmark, Greece, Hungary, Iceland, Israel, Italy, Lithuania, the Netherlands, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden and Switzerland.

2. Data kindly provided by the national statistical office.

3. Interns/apprentices are available for this country as a separate form of employment (not shown in this table).

Note: For Australia, Hungary, Korea and Sweden, the actual ratio refers to the national estimates provided by the national statistical authorities while the adjusted ratio is an estimate based on alternative microdata available (HILDA, ESS, KLIPS and ESS, respectively).

Contract of limited duration: contracts for which both employer and employee agree that its end is decided by objective rules (usually written down in a work contract of limited life). These rules can be a specific date, the end of a task, or the return of another employee who has been temporarily replaced. Typical cases are: employees in seasonal employment; employees engaged first by an agency or employment exchange and then hired to a third party to do a specific task (unless there is a written work contract of unlimited life); employees with specific training contracts.

Fixed-term contracts (FTC): A fixed-term contract is a contractual relationship between an employee and an employer that lasts for a specified period.

Project contracts: fixed-term contracts where the end date is defined by the completion of a particular project or task.

Temporary work agency (TWA) workers: an employee with a contract (of limited or unlimited duration) under which the employer (i.e. the agency) places that employee at the disposal of a third party (i.e. the user firm) in order to engage in work under supervision and direction of that user firm through an agreement for the provision of services between the user firm and the agency.

Occasional workers: Employees who worked on an irregular basis over the year. This may include on-call workers, seasonal workers, casual workers.

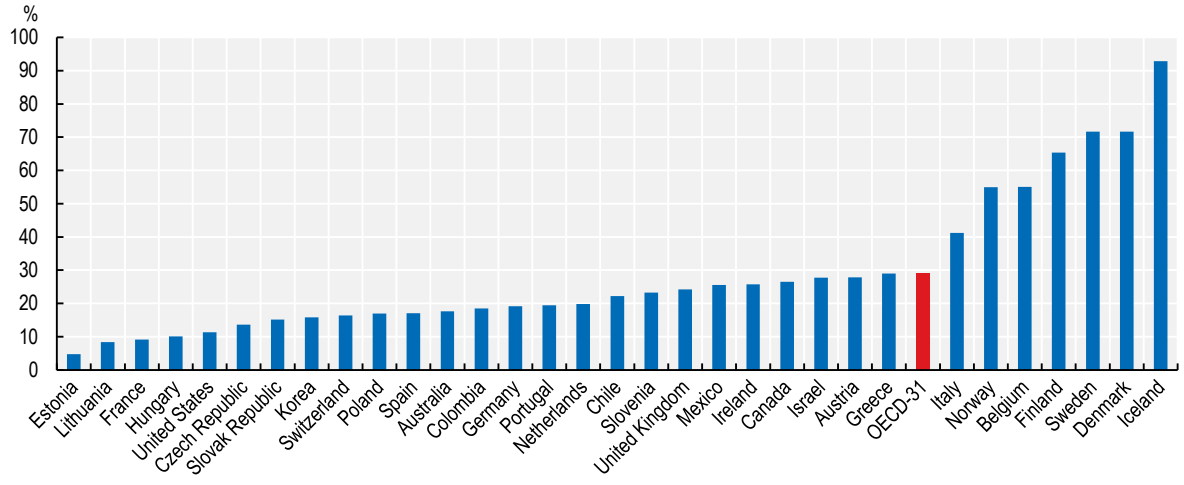
Interns/apprentices: contracts with a period of work experience offered by an organisation for a limited period of time.

Informal workers: Employees are considered to have informal jobs if their employment relationship is, in law or in practice, not subject to national labour legislation, income taxation, social protection or entitlement to certain employment benefits. For Colombia, this category includes all workers with no written contract of no contract at all and in the case of Mexico, this refers to the national definition of informal employment (the so-called TIL1 measure).

Self-employed without autonomy: own-account self-employed who typically work for one (or more) client-firm(s) with limited autonomy.

Annex Figure 5.A.1. Estimated trade union density for standard workers

Percentage of standard employment, latest available year



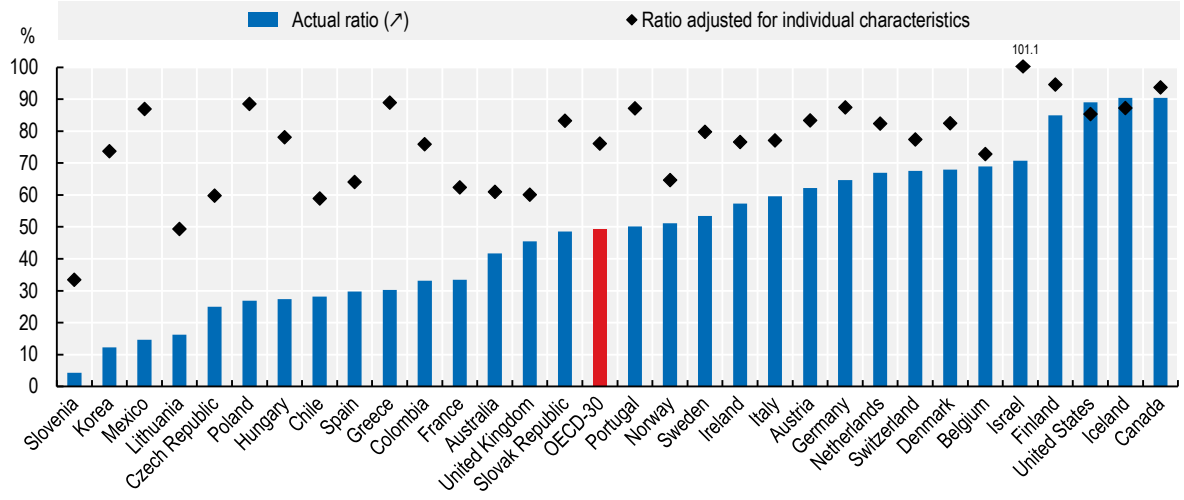
Note: Standard employment: Employees with an open-ended contract. Trade union density of standard form of employment have been adjusted for the overall trade union density by using the share of standard workers in total union membership and total number of employees. Estimates refer to 2010-12 for Greece and the Slovak Republic; 2013 for France; 2015 for Germany and Hungary; 2016 for Finland; 2014-16 for Austria, Belgium, the Czech Republic, Denmark, Iceland, Israel, Italy, Lithuania, the Netherlands, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain and Switzerland; 2017 for Canada, Chile, Colombia, Estonia, Ireland, Korea, Sweden, the United Kingdom and the United States; and 2018 for Australia and Mexico. OECD-31 is the unweighted average of OECD countries shown (not including Colombia, Japan, Latvia, Luxembourg, New Zealand and Turkey).

Source: OECD estimates based on results from the Characteristics of Employment (COE) Survey provided by the Australian Bureau of Statistics for Australia, the Labour Force Survey (LFS) for Canada, the Encuesta de Caracterización Socioeconómica Nacional (CASEN) for Chile, the Gran Encuesta Integrada de Hogares (GEIH) for Colombia, results from the Labour Force Survey (LFS) provided by Statistics Estonia for Estonia, the Finnish Working Life Barometer (FWLB) for Finland, the Enquête statistique sur les ressources et conditions de vie (SRCV) for France, the German Socio-Economic Panel (SOEP) for Germany, results from the Labour Force Survey (LFS) provided by the Hungarian Central Statistical Office for Hungary, the Quarterly National Household Survey (QNHS) for Ireland, results from the Economically Active Population Survey (EAPS) provided by Statistics Korea for Korea, the Encuesta Nacional de Ocupación y Empleo (ENOE) for Mexico, results from the Labour Force Survey (LFS) provided by Statistics Sweden for Sweden, the Labour Force Survey (LFS) for the United Kingdom, the Current Population Survey (CPS), May Supplement for the United States and the European Social Survey (ESS) for all other European countries and Israel.

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Annex Figure 5.A.2. Non-standard workers in the private sector are also underrepresented by trade unions

Actual and adjusted ratio of trade union density among non-standard workers relative to standard workers in the private sector (%), latest available year



Note: 2010-12 for Greece and the Slovak Republic; 2013 for France and Korea; 2015 for Germany; 2016 for Australia and Finland; 2014-16 for Austria, Belgium, the Czech Republic, Denmark, Hungary, Iceland, Ireland, Israel, Italy, Lithuania, the Netherlands, Norway, Poland, Portugal, Slovenia, Spain, Sweden and Switzerland; 2017 for Canada, Chile, Colombia, the United Kingdom and the United States; and 2018 for Mexico. OECD-30 is the unweighted average of OECD countries shown (not including Colombia, Estonia, Japan, Latvia, Luxembourg, New Zealand and Turkey).

Non-standard workers are those without an open-ended employment contract. The adjusted ratio for individual characteristics is based on the marginal effect of being in a non-standard form of work relative to being in an open-ended contract calculated from a probit regression controlling for sex, age groups, educational levels, industry, occupation, firm size (except for the United States) and full-time vs. part-time employment.

Source: OECD estimates based on the Household, Income and Labour Dynamics in Australia (HILDA) for Australia, the Labour Force Survey (LFS) for Canada, Encuesta de Caracterización Socioeconómica Nacional (CASEN) for Chile, the Gran Encuesta Integrada de Hogares (GEIH) for Colombia, the Finnish Working Life Barometer (FWLB) for Finland, the Enquête statistique sur les ressources et conditions de vie (SRCV) for France, the German Socio-Economic Panel (SOEP) for Germany, the Korean Labor and Income Panel Study (KLIPS) for Korea, the Encuesta Nacional de Ocupación y Empleo (ENOE) for Mexico, the Labour Force Survey (LFS) for the United Kingdom, the Current Population Survey (CPS), May Supplement for the United States and the European Social Survey (ESS) for all other European countries and Israel.

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Notes

[1] Collective bargaining and social dialogue are two distinct forms of action in which social partners engage. Social dialogue includes all kind of negotiation, consultation or, simply, exchange of information at any level between employers and workers. Social dialogue is often voluntary and can be formal (such as "works councils" in Germany) or informal (such as informal exchanges in the workplace or declarations of intent at national level). Collective bargaining is a formal process which is in most cases based on a (national) legal framework defining the rights and obligations of the bargaining parties and which, following a period of negotiation, generally leads to legally binding collective agreements.

[2] As set, together with the "right to organise", by the ILO Convention No. 98.

[3] The analysis in this chapter builds on the answers to the OECD Policy Questionnaires on Collective Bargaining (Chapter 2) updated in late 2018 to reflect the latest changes as well as on a number of interviews and exchanges with academics, policy makers, trade unionists and representatives of employer organisations. The last section also builds on the responses to the Questionnaire on Policy Responses to New Forms of Work (OECD, 2019[60]).

[4] For instance, in some OECD countries, the so-called "Ghent system" countries, the social partners play a key role in directly managing the unemployment insurance system.

[5] "Last in, first out" is a policy used to prioritise layoffs by seniority.

[6] Workers at risk of layoff are supported well before the layoff actually occurs.

[7] The patterns presented in the figure are not affected when focusing on private sector employees only (see Annex Figure 5.A.2).

[8] The correlation between the adjusted ratio of trade union density among non-standard workers relative to standard workers and trade union density among standard workers is weak (0.39) and not strongly significant; it becomes insignificant (and even weaker, 0.24) when excluding the Finnish and Icelandic cases.

[9] According to the ILO Committee of Experts on the Applications of Conventions and Recommendations (CEACR), "the entitlement to these right should not be based on the existence of an employment relationship, which is often non-existent". The recent report of the ILO Global Commission on the Future of Work also states that "all workers must enjoy (…) the right to collective bargaining" (ILO, 2019, p. 12[3]).

[10] While economists have discussed how insider companies, i.e. companies already operating in the market, can use the extensions of collective agreements to raise outsider rivals' costs or increase entry barriers – see e.g. Haucap et al. (2001[62]), – such anticompetitive behaviours result from deliberate *employers'* strategy, not from unions' bargaining power. As such, they do not contradict legal arguments exempting labour organisations from antitrust regulations, which consider collective bargaining from the perspective of *workers*. In fact, Haucap et al. (2001[62]) argue that, in some cases, a strong labour union can serve as an efficiency enhancing countervailing power to employers' associations.

[11] Decision No E/04/002 (Case COM/14/03) Agreements between Irish Actors' Equity SIPTU and the Institute of Advertising Practitioners in Ireland concerning the terms and conditions under which advertising agencies will hire actors

[12] Dutch Competition Authority (*Nederlandse Mededingingsautoriteit*), *Cao-tariefbepalingen voor zelfstandigen en de Mededingingswet: visiedocument* (Collective labour agreements determining fees for self-employed and the competition law: a reflection document), 2007.

[13] United States Court of Appeals for the Ninth Circuit, No. 17-35640.

[14] This case is often referred to as the FNV Kunsten case (Case C-413/13). The case was also brought to the ILO Committee of Experts on the application of Conventions and recommendations (CEACR) which reiterated that Convention No. 98 "establishes the principle of free and voluntary collective bargaining and the autonomy of bargaining parties" (ILO, 2016[22]).

[15] Collective Complaint No. 123/2016 ICTU v. Ireland, decision adopted on 12 September 2018, paragraph 38.

[16] In addition, as discussed in OECD (2019[17]), a current debate in the field of competition law revolves around whether worker welfare should be included in the definition of "consumer welfare", which guides the action of antitrust authorities, and whether the latter's analyses should consider welfare losses beyond those affecting the final consumer.

[17] For instance, U.S. v. Joseph P. Cuddigan, et al., U.S. District Court D.R.I., Civil Action N.3843, 15 June 1970.

[18] Although when the pool of available workers is extremely large (e.g. in the case of crowdsourcing platform workers such as Amazon Mechanical Turk), increasing exit options through competition might not be enough. Indeed these workers have an extremely low residual labour supply elasticity – as low as 0.1 according to Dube et al (forthcoming[63]). When taking into account the supply response of all their competitors and the fact that the pool of available workers stretches worldwide, they have little choice but to accept evolving prices.

[19] A dependent contractor is defined as follows: a) a person, whether or not employed under a contract of employment; b) and whether or not furnishing tools, vehicles, equipment, machinery, material, or any other thing owned by the dependent contractor; c) who performs work or services for another person for compensation or reward; d) on such terms and conditions that the dependent contractor is in a position of economic dependence upon, and under an obligation to perform duties for, that person; e) more closely resembling the relationship of an employee than that of an independent contractor (Section 1 Labour Relations Act Ontario).

[20] Employers can dispute the composition of the bargaining unit (i.e. the group of employees that the union/bargaining agent is certified to represent in collective bargaining). Such disputes will be settled by the Canada Industrial Relations Board (CIRB) during the certification process and before collective bargaining begins. During the certification process, the employer or union may contest the inclusion or exclusion of any job classification or position from the bargaining unit. The CIRB will review the evidence and determine the group of employees/bargaining unit that is appropriate for collective bargaining. In making such a determination, the CIRB has significant discretion, and will look beyond job titles/classifications and examines the actual duties of the persons concerned. If a collective agreement covers dependent contractors and a dispute arises concerning whether an individual is a dependent or independent contractor, the CIRB will also examine the evidence by looking beyond the job

title/classification and make a decision. The CIRB's decision is subject to judicial review, initially by the Federal Court of Canada.

[21] The origins of this approach were in arguments by a law professor in the 1960s (Arthurs, 1965[66]) that collective bargaining is a way of addressing a power imbalance and, due to similarities between dependent contractors and employees, they should be eligible for unionisation. Many Canadian jurisdictions adopted the definition of dependent contractor in the following decade.

[22] A person who works for money is either an employee or a person providing work for remuneration on a different basis that the employment relationship as long as he/she does not employ any other persons to perform this type of work, irrespective of the legal basis of employment, and has such rights and interests related to performing the work which may be represented and defended by a trade union.

[23] The Irish law defines precisely the two cases: A "*false self-employed worker*" is an individual who: a) performs for a person the same activity or service as an employee of the other person; b) has a relationship of subordination; c) is required to follow the instructions of the other person regarding the time, place and content of his or her work; d) does not share in the other person's commercial risk; e) has no independence as regards the determination of the time schedule, place and manner of performing the tasks assigned; and f) for the duration of the contractual relationship, forms an integral part of the other person's undertaking. A "*fully dependent self-employed worker*" is an individual: a) who performs services for another person (whether or not the person for whom the service is being performed is also an employer of employees) under a contract (whether express or implied, and if express, whether orally or in writing); and b) whose main income in respect of the performance of such services under contract is derived from not more than two persons (Competition (Amendment) Act 2017).

[24] Collective complaint procedure, Council of Europe, Irish Congress of Trade Unions v. Ireland Complaint No 123/2016; IOE submission, https://rm.coe.int/123casedoc4-en-observations-by-the-ioe/16808b127f.

[25] Physicians or hospitals in a non-exclusive provider network are allowed to offer medical services outside of the network itself.

[26] For instance, in 2010 in New Zealand, following an industrial dispute in the film industry, the government passed an amendment to the Employment Relations Act effectively preventing all workers in the film industry (considered independent contractors) to enter into collective bargaining. The current government has declared its intention to restore the right to engage in collective bargaining for film industry workers.

[27] A more radical approach to ensure that all self-employed workers experiencing power imbalance have the right to negotiate their own terms of employment – with no precedent in OECD countries and in conflict with most existing regulations – is discussed in the academic literature (Creighton and McCrystal, 2016[68]; De Stefano and Aloisi, 2018[20]) and among trade unions (Fulton, 2018[31]). This consists in reversing the current presumption that self-employed workers do not only provide labour but also services by means of an independent business organisation that they actually own and manage – which justifies their exclusion from collective bargaining. In this approach, the burden of proof would be shifted onto those who propose the restriction, in particular regulation enforcement authorities. The main argument used in support of this approach is that "the right to bargain applies to all workers with the sole possible exception of those explicitly excluded by the text of ILO Convention No. 87 and No. 98" (notably, armed forces and the police) and "self-employed workers are not among those excluded and, therefore, the Conventions are deemed as fully applicable to them" (De Stefano and Aloisi, 2018, pp. 14-15[20]). A reversal of the burden of the proof would however conflict with most existing antitrust regulations and it would likely increase the burden for antitrust authorities that would have to check ex post the validity of a large number of agreements. Moreover, while aimed at ensuring that all workers in unbalanced power relationship are covered, the

reversal of the burden of the proof may be exploited more effectively by relatively stronger and more organised groups of workers.

[28] For instance, in September 2004, the Hyundai Heavy Industry company union was expelled from the Korean Metal Workers' Union (a member of the Korean Confederation of Trade Unions, KCTU) precisely because of their discriminatory stance toward nonstandard workers (Durazzi, Fleckenstein and Lee, 2018[24]).

[29] Aslam & Ors v Uber BV & Ors [2016] EW Misc B68 (ET) (28 October 2016).

[30] Ruling 26/2019, *Corte d'Appello di Torino*, R.G.L. 468/2018. In the first instance, the judges rejected the request of re-classification. The *Corte di Cassazione* will take the final decision.

[31] Ruling of 10 January 2019, *Cour d'Appel de Paris,* RG 17/04674. Also in this case, the *Cour de Cassation* will take the final decision.

[32] Ruling of 15 January 2019, *Rechtbank Amsterdam*, case nb. 7044576 CV EXPL 18-14762 and 7044576 CV EXPL 18-14763.

[33] While outlawing discrimination clearly benefits "outsiders", strategies aimed at limiting the use of non-standard forms of employment might backfire against "outsiders" by reducing their job opportunities (OECD, 2014[67]).

[34] The issue of the status of platforms has been the subject of a series of recent court cases throughout OECD countries. In 2017, the European Court of Justice (case 434/15) found that Uber acts as a transportation service provider rather than a mere technological intermediary between customers and independent service providers and that "it exercises a certain control over the quality of the vehicles, the drivers and their conduct, which can, in some circumstances, result in their exclusion". In 2018, the French *Cour de Cassation* (Cass. soc., 28 *novembre* 2018, n° 17-20.079) concluded that the power to apply sanction and to monitor rides constituted a bond of subordination linking the platform TakeEatEasy and the drivers working for it, which justified considering the platform as an employer.

[35] Between 1990 and 2017, the number of worker centers in the United States increased from 5 to 240, though membership is hard to estimate.

[36] The discussion on the United States in this section owes much to David Madland whose inputs are gratefully acknowledged.

[37] The founder of the Freelancers Union explicitly referred to a "new mutualism" (Horowitz, 2013[61]).

[38] For example, the campaign in New York by Domestic Workers United to extend basic legal protections such as overtime pay to domestic workers; the Restaurant Opportunities Center's efforts to end subminimum wage work for tipped employees and their suits against lawbreaking employers; and the "Freelance isn't Free" legislation pushed by the Freelancers Union.

[39] For example, strikes at Walmart were organised by the worker center Organization United for Respect at Walmart.

[40] One of the most successful examples of this is the Coalition of Immokalee Workers' effort to improve working conditions for farmworkers picking tomatoes sold by prominent retailers.

[41] Although an interesting example is the commercial negotiation conducted in 2016 by SMart in Belgium. Namely, SMart negotiated as an *employer*, on behalf of those of its employees who were also food-delivery riders on the side. SMart signed a convention with the platforms Deliveroo and TakeEatEasy in which they committed to guarantee riders shifts of three hours minimum and to be paid by the hour and not by the delivery. In addition, riders were given a formal *employment* contract. However, this example also highlights the limits to this type of negotiation: it had led to a non-binding commercial convention, but Deliveroo unilaterally decided to revert to payment by the delivery with self-employed riders in 2017 (Drahokoupil and Piasna, 2019[64]).

[42] However, Prassl (2018[59]) argues that platforms remain resistant to collective bargaining in many cases. For instance, in the United Kingdom, Deliveroo successfully fought the union recognition request from the Independent Workers Union of Great Britain (IWGB), on the basis that workers were independent contractors who could not collectively bargain.

[43] In 2016, Uber agreed to the formation of a workers' organisation in New York City, organised by a local branch of the International Association of Machinists and Aerospace Workers – while drivers are classified as independent contractors and thus outside of the provisions of the US National Labor Relations Act.

[44] Other websites, such as TurkerView and TurkerHub, offer similar possibilities and are run by Amazon Mechanical Turk workers themselves.

[45] Blockchain technology is a form of distributed ledger technology that acts as an open and trusted record (i.e. a list) of transactions from one party to another (or multiple parties) that is not stored by a central authority. Instead, a copy is stored by each user running Blockchain software and connected to a Blockchain network, also known as a node. Therefore, nobody can tamper with the ledger and everyone can inspect it (Berryhill, Bourgery and Hanson, 2018[65]).

[46] The Swedish white-collar union *Unionen* is, for instance, exploring how to use data to reduce members churn and keep a high membership. *Unionen* is also testing how data on workers requests of support can be used to "nowcast" (i.e. predict the very near future or near past) the state of a company or a region (the intuition being that when the business goes well, the number of requests of support tends to be lower and vice-versa). This would allow them to better target their efforts.

[47] http://www.oecd.org/els/emp/LFS Definitions - Tables.pdf.

Glossary

The purpose of this glossary is to provide a common understanding of the concepts as they are used in the publication. Definitions provided below should not be taken as validated/legal ones in any specific country. In fact, these concepts may differ across countries and industrial relations contexts.

Collective bargaining: according to Article 2, ILO Convention No. 154, collective bargaining extends to all negotiations which take place between an employer, a group of employers or one or more employer organisations, on the one hand, and one or more worker organisations, on the other, for:

- determining working conditions and terms of employment; and/or
- regulating relations between employers and workers; and/or
- regulating relations between employers or their organisations and a worker organisation or worker organisations.

Collective bargaining normally results in a written document (*collective agreement*) that is mutually binding for a stipulated time.

Cross-sectoral (or national) agreement: collective bargaining agreement signed by peak-level social partner organisations, covering the entire economy, the entire private sector or several sectors.

Derogations from the law and/or from higher level agreements: opening or derogation clauses which allow to set lower standards, i.e. less favourable conditions for workers, in a generalised way and not specifically related to economic difficulties (in this latter case see "opt-out").

***Erga omnes**:* literally in Latin, "towards everybody". In labour law, the term refers to the extension of agreements for all workers, not only for members of signatories unions. For cases where agreements are extended to workers in non-signatories firms, please, refer to "extension".

Extension or administrative extension: corresponds to the act of extending the terms of collective agreements at sectoral level also to workers in firms that have not signed the agreement or are not affiliated to an employer organisation that signed the agreement. This also includes automatic extensions which therefore do not need a formal legal act but rely on standard administrative practice or jurisprudence (for instance, relating to the setting of minimum wages, working hours or social insurance contributions and entitlements).

Favourability principle: refers to the fact that the most favourable conditions to should apply in case of diverging standards in different agreements covering the same worker.

Firm-level agreement: company-level collective agreements between an employer and a trade union or between an employer and an employee body, elected and/or mandated by the company's staff. In this report, "firm" and "company" are used interchangeably.

Opt-out clause: temporary "inability to pay" clauses which allow the suspension or renegotiation of (part of) the agreement in cases of economic hardship.

Non-standard forms of employment: refers to all forms of work that are not based on a full-time open-ended employment contract.

Retroactivity: refers to the extension of the provisions of a newly signed agreement to a period before its actual signature or extension (usually to the period between the expiration of the previous agreement and the entry into force of the new one). Usually it implies the payment of arrears corresponding to the increase in negotiated wages.

Sectoral agreement: collective bargaining agreement signed by trade unions and employer organisations which represent workers and employers of a specific sector (e.g. metal sector, chemical sector, etc.).

Social dialogue: is defined by the ILO to include all types of negotiation, consultation or simply exchange of information between, or among, representatives of governments, employers and workers, on issues of common interest relating to economic and social policy. Collective bargaining, and workers' voice, which are the focus of this volume, are specific forms of social dialogue. Social dialogue can exist as a tripartite process, with the government as an official party to the dialogue or it may consist of bipartite relations only between labour and management (or trade unions and employers' organizations), with or without indirect government involvement. Social dialogue processes can be informal or institutionalised, and often it is a combination of the two. It can take place at the national, regional or at enterprise level. It can be inter-professional, sectoral or a combination of these.

Social pact: a peak-level deal (for instance at national level) over a comprehensive public policy package negotiated between governments, trade unions and/or employer's organisations.

Social partners: representatives of employers and workers, usually employer organisations and trade unions.

Temporary work agency (TWA) workers: a worker with a contract (of limited or unlimited duration) under which the employer (i.e. the agency) places that person at the disposal of a third party (i.e. the user firm) in order to engage in work under supervision and direction of that user firm through an agreement for the provision of services between the user firm and the agency.

Ultra-activity or after-life: refers to the validity of a collective agreement beyond its termination date.

Wage co-ordination: co-ordination between and/or within trade unions and/or employer organisations (sometimes with some role of the government) to set formal or informal objectives on wage increases or wage freezes/cuts. Wage co-ordination can take different forms, i.e. "pattern bargaining", where first a sector or a region starts and the others follow; formal or informal inter- or intra-associational guidelines to follow when negotiating; or wage increases or cuts agreed with a social pact or national agreement.

Workers' voice: is made of the various institutionalised forms of communication between workers and managers that offer an alternative to exit (i.e. dissatisfied workers quitting) in addressing collective problems at firm (in this report, "firm" and "company" are used interchangeably) or workplace (in this report "plant", "establishment" and "workplace" are used interchangeably). It can be organised in different ways: in this volume, instances of workers' voice mediated through representative institutions are called **"representative voice**". Representative voice arrangements include local trade union representatives (either appointed by the trade union or elected by the workers), works councils (usually a legally established body elected or appointed by all workers in the firm irrespective of their membership of a trade union), or worker representatives (elected or appointed among the workers , either union members or independent). The prerogatives and rights of the representing entities (from information, to consultation and co-determination) vary across countries. By contrast, when workers' voice takes the form of an institutionalised, regular dialogue between workers and managers (e.g. via participatory town halls meetings, regular direct consultations etc.), it is called **direct voice**. **"Mixed" systems of voice** are those in which both direct and representative arrangements for workers' voice cohabit). Direct and representative forms of voice are not substitutes: they differ notably in terms of the legal protections and rights attached

to the status of workers' representatives (such as protection against retaliation and firing, and information and consultation rights).

Works council: official firm-level body which represents workers (often directly elected by workers and different from unions or union branches at firm level).

Negotiating Our Way Up

COLLECTIVE BARGAINING IN A CHANGING WORLD OF WORK

Collective bargaining and workers' voice are often discussed in the past rather than in the future tense, but can they play a role in the context of a rapidly changing world of work? This report provides a comprehensive assessment of the functioning of collective bargaining systems and workers' voice arrangements across OECD countries, and new insights on their effect on labour market performance today. The publication provides a detailed review of existing collective bargaining institutions and workers' voice arrangements. It analyses the role of these institutions for employment, wages, labour market inclusiveness, as well as non-monetary aspects of job quality. The publication also discusses how collective bargaining can be mobilised to address emerging challenges in the labour market, and identifies the type of government intervention that may be required to do this. The report provides a resource for policy makers, trade unions and employers' organisations interested in understanding how collective bargaining and workers' voice can be used to complement public regulation in shaping ever-changing labour markets.

Consult this publication on line at ***https://doi.org/10.1787/1fd2da34-en***.

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