

## Chapter 8. Promoting fair wages and labour taxes

*While productivity growth is a pre-condition for rising standards of living it does not automatically translate into higher wages and better working conditions for workers. This chapter discusses the role of minimum wages, collective bargaining and labour taxation for promoting a broad sharing of productivity gains. Wage-setting institutions can help avoid that the proceeds of productive labour disproportionately go to capital, but also risk pricing low-productivity workers out of the market. To increase their effectiveness and mitigate any potentially adverse employment effects, a good coordination of wage-setting institutions with the system of labour taxation is crucial. This will also help to limit the adverse effects of labour taxation on 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.

## Introduction

Productivity growth is a pre-condition for higher living standards. Yet, productivity growth does not automatically translate into higher wages and better working conditions, nor does it necessarily lead to the creation of more quality jobs. The challenge for policy-makers is to promote a broad sharing of productivity gains without undermining employment.

This chapter discusses the role of policies and institutions for promoting a broad sharing of productivity gains, with a focus on wage-setting institutions and labour taxation. Labour market institutions such as a minimum wage or collective bargaining can help, by setting minimum standards for employment and avoid that the proceeds of productive labour disproportionately go to capital. This is particularly important for workers with a weak bargaining position such as those with low skills and precarious contracts. Moreover, the coordination of wage-setting institutions with the system of labour taxation can enhance their effectiveness in ensuring a broad sharing of productivity gains, while containing the risk that they undermine the employment opportunities of the workers they seek to help. Policy coordination is equally important from the perspective of labour taxation since wage-setting institutions determine to an important extent the effects of labour taxation on labour market outcomes.

The remainder of the chapter is structured as follows. Section 8.1 discusses the role of the statutory minimum wage for ensuring that work is rewarding for everyone. Section 8.2 discusses the role of collectively-agreed wages and working conditions for a broader sharing of productivity gains while maintaining a good alignment between labour costs and productivity. Section 8.3 discusses the role of labour taxation for wages and employment, with a particular focus on those in the bottom of the distribution.<sup>1</sup> The final section concludes.

### 8.1. Minimum wages can help ensure that work is rewarding for everyone

Statutory minimum wages are the most direct policy lever governments have for influencing wage levels, especially at the bottom of the distribution. More specifically, minimum wages have been justified for: i) ensuring fair pay and preventing exploitation; ii) making work pay; iii) boosting tax revenue and/or tax compliance by limiting the scope of wage under-reporting; and iv) anchoring wage bargaining, particularly for vulnerable workers with a weak bargaining position.

Currently, 28 out of 36 OECD countries have statutory minimum wages in place. Minimum wages also exist in most non-OECD emerging economies.<sup>2</sup> Statutory minimum wages may exist alongside collectively agreed wage floors and can sometimes substitute for them when collective bargaining coverage is low. In the eight OECD countries without statutory minimum wages (Austria, Denmark, Finland, Iceland, Italy, Norway, Sweden and Switzerland), a large part of the workforce is, at least formally, covered by wage floors specified in sector- or occupation-level collective agreements. The role of collectively-agreed minimum wages is discussed in the next section.

#### *Minimum wages, as a stand-alone policy, can be useful but tend to have limits*

A long-standing debate exists around the impact of minimum wages on employment. There are theoretical explanations for both a negative or a positive effect of minimum-wage increases on employment, and thus the question is ultimately an

empirical one. Based on a review of the evidence, OECD (2015<sub>[1]</sub>) concludes that the impact of moderate minimum-wage increases on employment tends to be small in both advanced and emerging economies, although effects on some vulnerable groups – such as youth – may be more negative. Yet, this conclusion remains controversial.<sup>3</sup> While on average across OECD countries, gross minimum wages are set at around 50% of the median, what exactly defines an appropriate level of the minimum wage, i.e. a minimum wage that supports workers’ earnings, without undermining employment, is not clear and inevitably depends on country-specific factors, including the behavioural response of employers, the degree of competition in product and labour markets and its interaction with other policies, in particular taxes and benefits.<sup>4</sup>

High minimum wages reduce wage inequality, particularly in the presence of ripple effects higher up in the wage distribution.<sup>5</sup> Ripple effects (or knock-on/spill-over effects) reflect the situation where increases in the minimum wage result in wage adjustments higher up in the wage distribution. Wage increases above the minimum wage may be needed to maintain incentive structures in the workplace based on wage differences between lower and higher-paid workers, while wage reductions in the top may be needed to compensate for mandated wage increases in the bottom. Ripple effects have been documented for some countries, such as France, the United States and several emerging economies, but not in others.<sup>6</sup> When inequality is assessed over the long-run, the inequality-reducing effect of minimum wages may be more modest due to the possibility of mobility in and out of employment and up and down the wage ladder (OECD, 2015<sub>[1]</sub>).

Minimum wages only have a rather limited effect on reducing poverty – see Card and Krueger (1995<sub>[2]</sub>); Neumark and Wascher (2008<sub>[3]</sub>); MaCurdy (2015<sub>[4]</sub>). This reflects several factors: i) poor households often have no one working; ii) minimum-wage workers often live in non-poor households; and iii) in-work poverty is often the result of low working hours and household composition, rather than low hourly wages (OECD, 2009<sub>[5]</sub>). The level of the minimum wage is of course also critical: it may be too low to have a significant impact on poverty headcounts, or too high so that the positive effects of higher hourly wages on poverty are more than offset by their adverse impacts on employment and working hours among low-paid workers. All in all, minimum wages are a relatively blunt instrument for reducing poverty.

### *Coordinating minimum wages with the tax and benefit systems is key to make them more effective*

Gross minimum-wage levels expressed as a share of median wages vary significantly across OECD countries and emerging economies (Figure 8.1). In the OECD area, they range from below 40% of median wages in the Czech Republic, Mexico, the United States, Estonia and Japan, to 60% and over in Turkey, Chile, France and Slovenia and a minimum-to-median-wage ratio of nearly 1 in Colombia.<sup>7</sup>

Gross values of the minimum wage neither give an accurate picture of workers’ take-home pay, nor of the costs of employing minimum-wage workers for firms due to the role of taxes and transfers. To lower employers’ costs and the risk of employment losses following minimum-wage hikes, some countries, most notably France, have introduced sizeable reductions in employer social security contributions for workers at around the minimum wage, thereby lowering the ratio of minimum-to-median labour costs below that of the minimum-to-median wage. Other countries have attempted to increase the effectiveness of the minimum wage to “make work pay” using targeted reductions in income taxes and/or employee social contributions for low-wage workers.

Some countries offer tax credits or in-work benefits targeted at low-wage workers (e.g. Belgium, Mexico, United Kingdom, United States), while others rely on progressive income taxes to keep the tax burdens of low-wage earners well below those applicable to the typical worker (e.g. New Zealand).

A good coordination between minimum wages and the tax and benefits system is key to mutually reinforce their impact. As discussed above, such a coordination helps to make minimum wages more effective in ensuring that work pays and addressing poverty, without significant employment losses. But minimum wages can also enhance the effectiveness and affordability of in-work benefits and tax credits in supporting the incomes of workers and their families. By imposing a wage floor, they limit the risk that employers lower wages in an effort to “pocket” in-work benefits and tax credits, thereby neutralising their impact on the take-home pay of workers.<sup>8</sup> At the same time, for in-work benefits or tax concessions to remain well targeted and affordable, wage floors should be set at moderate levels and reliable information on wages and working time should be available to the authorities for means-testing.

**Figure 8.1. Gross and net minimum wages and labour cost at the minimum wage**

% of gross median wage, net median wage and median labour cost respectively, 2016



*Note:* Labour cost is calculated as the gross minimum wage + employer social security contributions. Data refer to a single person without children aged 40 working full-time. Social assistance and cash housing supplements are assumed to be available where relevant. Countries are ordered in ascending order of the gross minimum wage.

*Source:* OECD Database on Minimum Wages (<https://stats.oecd.org/Index.aspx?DataSetCode=MIN2AVE>) and OECD Tax-Benefit Models (<http://www.oecd.org/social/benefits-and-wages.htm>). Net minimum wages and labour costs are not provided for Colombia and Mexico as these countries are not currently included in the OECD Tax-Benefit Model.

StatLink  <http://dx.doi.org/10.1787/888933881249>

Another way to minimise any possible dis-employment effect of the minimum wage is to apply different rates across regions, economic activities or workforce groups to reflect differences in economic conditions and productivity. While in most countries, minimum wages are set at the national level, in Canada, Japan, Mexico, the United States and several emerging economies, they are set at sub-national level, while in Costa Rica, Japan

and Mexico rates differ by sector or occupation. Around half of OECD countries with a statutory minimum set lower rates for youth. Lower rates are also set in some cases for workers on training/apprenticeship contracts, for workers with disabilities as well as for long-term unemployed – for details, see OECD (2015<sub>[1]</sub>).

***Regularly revise minimum wages based on accurate information, impartial advice and the views of the social partners***

Minimum wages need to be regularly revised to ensure that they maintain their usefulness as a policy instrument and need to be set based on accurate information and a wide range of views. Most OECD countries review and adjust minimum wages every year. Not revising the minimum wage regularly can result in a significant erosion of its value in real terms. Irregular revisions may also heighten the risk of the minimum wage being adjusted for political reasons, with insufficient consideration of current and future labour market effects. However, rather than revising minimum wages mechanically (e.g. by linking them to average wage growth), this should be done carefully by taking due account of labour market conditions for the intended beneficiaries based on accurate, impartial and up-to-date information.

The process of setting the minimum wage varies significantly across countries, e.g. OECD (2015<sub>[1]</sub>), Boeri (2012<sub>[6]</sub>). Minimum wages may be: i) legislated by the government or parliament (e.g. the United States); ii) set by government following a formal, but non-binding, consultation process with the social partners (the majority of OECD countries, including France, Japan, Portugal, Spain and the United Kingdom); iii) the outcome of a bargaining process between social partners, with or without the involvement of government (e.g. Belgium and Mexico); or iv) set by an independent body (e.g. Australia).

Independent commissions are particularly well placed to give objective recommendations, based on a wide range of economic and social factors. The operation of these bodies varies from country to country in terms of the advisory (e.g. France) or legally-binding (e.g. Australia) nature of their recommendations, the extent to which the view of the social partners are taken into account and their independence.<sup>9</sup> When the advice of these commissions is taken seriously and social partners support the process, it may be less important who ultimately sets the minimum wage.

## **8.2. Collective bargaining can contribute to a broader sharing of productivity gains**

Governments can further promote a broad sharing of productivity gains by supporting collective bargaining and social dialogue. Collective bargaining and social dialogue contribute to the determination of wages and non-wage working conditions and help ensure that workers with a weak bargaining position share in the benefits of productivity growth. Collective bargaining and social dialogue can operate alongside statutory rules for wages and working conditions or act as a substitute, provided that coverage is high. In addition, collective bargaining and social dialogue provide voice to workers, while endowing employers and employees with a tool for addressing common challenges. Indeed, collective bargaining and social dialogue play a potentially central role for most, if not all, aspects of labour market performance. This crucially rests on the ability of workers and firms to associate and the coverage of collective agreements negotiated. However, since the 1980s, collective bargaining has been confronted with serious challenges in the face of global competition, technological change and a long-running trend towards decentralisation of bargaining.

*Collective bargaining has increasingly come under pressure*

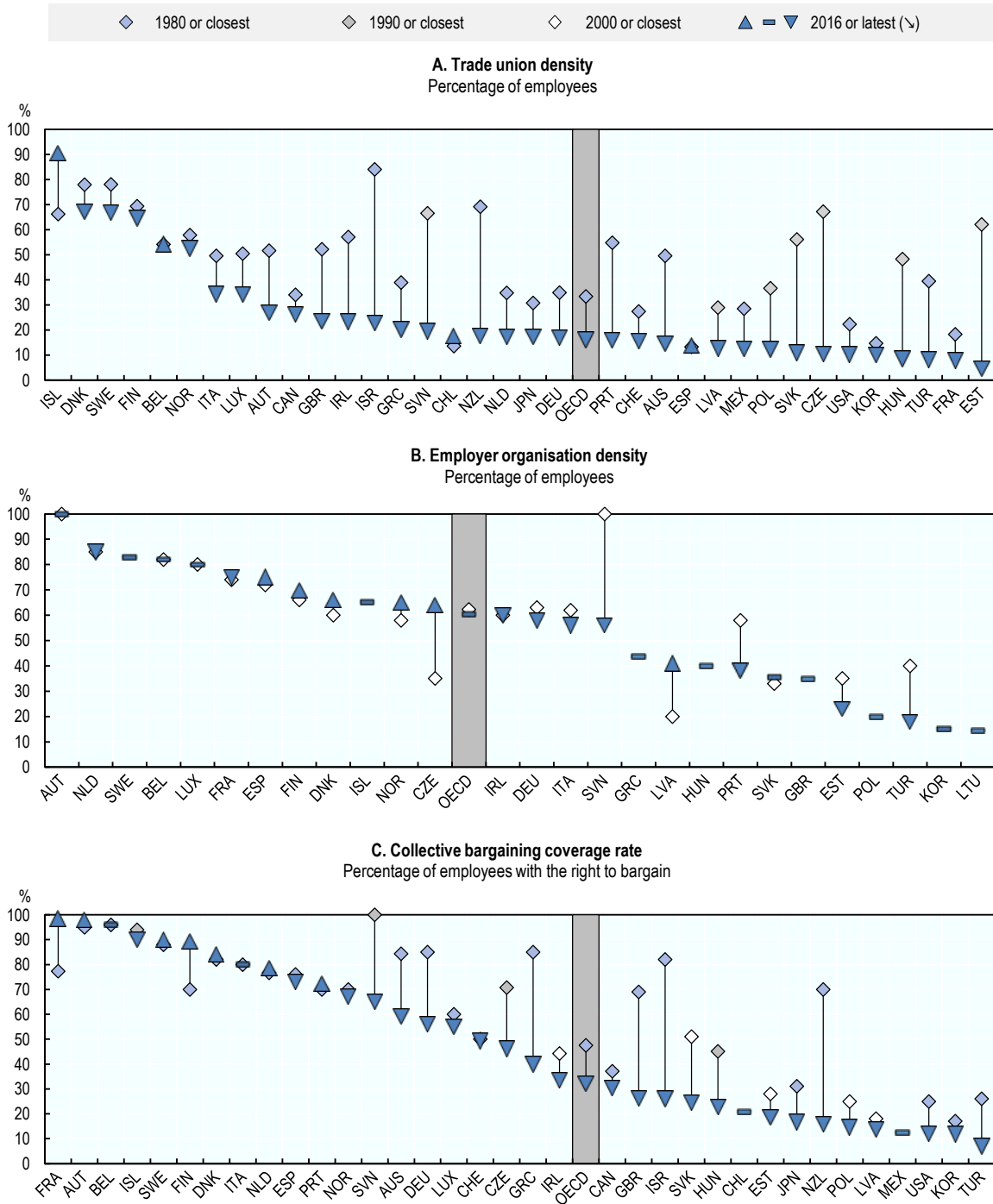
On average across OECD countries, trade union density almost halved during the past 30 years, falling from 30% in 1985 to 17% in 2016 (Figure 8.2, Panel A). As of 2016, less than 10% of the workforce is unionised in countries such as Estonia, France and Turkey and considerably more than half in countries such as Denmark, Finland, Iceland and Sweden. Union members tend to be predominantly male, middle-aged, and medium to highly skilled, tend to work in large firms, and typically have a permanent contract.

Trade unions either engage directly with employers or bargain with employer organisations. Membership to employer organisations varies considerably across countries, but, in contrast to union density, has been relatively stable over time (Figure 8.2, Panel B). In countries characterised by predominantly firm-level bargaining (e.g. Central and Eastern European countries, OECD countries outside Europe), employer organisations typically do not engage in collective bargaining and employer organisation tends to be low. By contrast, employer association membership is high in Belgium, Luxembourg, the Netherlands, Sweden, as well as in Austria where membership is compulsory. Employer organisations tend to be most important in manufacturing and construction and more likely to represent the interests of employers in large firms.

The number of workers covered by collective bargaining has tended to decline in tandem with trade union density in countries predominantly characterised by firm-level bargaining, but has been relatively stable in others, except Germany and, more recently, Greece. On average across OECD countries, it decreased from 45% in 1985 to 32% in 2016 (Figure 8.2, Panel C). Collective bargaining coverage is above 50% only in countries with sector-level bargaining based on either high employer organisation density or a widespread use of administrative extensions that expand the reach of collective agreements beyond the signatory parties in a sector. Collective bargaining coverage tends to be highest in manufacturing and construction as well as in larger firms. In the presence of multi-employer bargaining at sectoral or national level, collective bargaining coverage of small firms tends to be much higher.

All in all, the weakening of labour relations in many OECD countries has put collective bargaining systems under strong pressure and concerns have been growing about their ability to contribute to better labour market outcomes, notably when coverage has declined significantly or when social partners' representativeness and strength have declined following shrinking membership rates.

**Figure 8.2. Trade union density and collective bargaining coverage have trended to fall**  
Trade union density, employer organisation density, and collective bargaining coverage by country and year, 1980-2016



Note: OECD are employee-weighted averages across countries shown.

Source: OECD Trade Unions and Collective Bargaining Database, ([www.oecd.org/employment/collective-bargaining.htm](http://www.oecd.org/employment/collective-bargaining.htm)).

StatLink  <http://dx.doi.org/10.1787/888933881268>

To assess the role of collective bargaining for labour market performance, it is important to go beyond the membership rates of the social partners and collective bargaining coverage by also taking account of other key features that characterise collective bargaining systems (OECD, 2017<sub>[7]</sub>): i) the *level of bargaining* at which collective agreements tend to be negotiated (e.g. firm level, sector level, national level or a combination of different levels); ii) the role of *wage co-ordination* between sector-level (or firm-level) agreements, such as the setting of common wage targets, to take account of macroeconomic conditions; and iii) the *degree of flexibility* for firms to modify the terms set by higher-level agreements. The level of bargaining ranges from *centralised* systems, in which there is little or no room for firms to derogate from sector- 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 sector-level agreements to set broad framework conditions but leaves detailed provisions to firm-level negotiations. The role of these different features of collective bargaining systems for labour market performance is discussed below.

### *Collective bargaining can contribute to better labour market performance*

Collective bargaining has the potential to play a central role in all aspects of labour market performance, including: i) wages and non-wage working conditions; ii) employment and unemployment; iii) inequality; and iv) productivity.

There is a broad consensus in the literature that collective bargaining contributes to a broad sharing of productivity gains by promoting wages and working conditions. Within countries, at the individual level, there is a wage premium for workers covered by firm-level bargaining compared with those who are not covered or those covered only by sector-level bargaining and such workers tend to enjoy more generous fringe benefits such as pensions and holiday pay, see e.g. Bryson (2014<sub>[8]</sub>), Ferracci and Guyot (2015<sub>[9]</sub>) and OECD (2018<sub>[10]</sub>).<sup>10</sup> There is also some indication that the work environment tends to be of higher quality in firms with a recognised form of employee representation (e.g. a union or works council), thanks to lower work intensity, more training options and higher prospects for career advancement (OECD, 2018<sub>[10]</sub>).

By contrast, the role of collective bargaining for employment and unemployment has been the subject of a long-standing and intense debate. Comparing collective bargaining systems across countries, Calmfors and Driffill (1988<sub>[11]</sub>) conjectured that the effect of collective bargaining varies according to their level of centralisation (i.e. the level at which bargaining takes place, national or sector or firm), with the best performance in terms of employment in the most centralised and the most decentralised systems.<sup>11</sup> However, empirical studies did not provide much backing for this hypothesis – see OECD (1997<sub>[12]</sub>), Traxler et al. (2001<sub>[13]</sub>), Aidt and Tzannatos (2002<sub>[14]</sub>), Bassanini and Duval (2006<sub>[15]</sub>) and Eurofound (2015<sub>[16]</sub>).<sup>12</sup> Soskice (1990<sub>[17]</sub>) instead highlighted the importance of the co-ordination of wages across bargaining units – typically sectors – as a tool to adjust to aggregate economic conditions. Subsequent studies found that co-ordination plays a key role in improving the performance of sector-level bargaining – e.g. Elmeskov et al. (1998<sub>[18]</sub>), Aidt and Tzannatos (2002<sub>[14]</sub>), OECD (2004<sub>[19]</sub>), Bassanini and Duval (2006<sub>[15]</sub>), OECD (2012<sub>[20]</sub>), Eurofound (2015<sub>[16]</sub>).<sup>13</sup>

Building on a more granular characterisation of national collective bargaining systems that takes account not just of the degree of bargaining coverage but also the level of bargaining, the use of wage co-ordination and the degree of flexibility for firms, OECD (2018<sub>[10]</sub>) finds that co-ordinated systems are linked with better employment and



unemployment outcomes than fully decentralised systems. Moreover, co-ordinated systems are associated with lower unemployment for vulnerable groups, including youth and low-skilled workers as well as women than fully decentralised systems. There is therefore no indication that such systems deliver good labour market outcomes for “insiders” (e.g. skilled prime-age males) at the expense of jobs for “outsiders” (e.g. youth, women and low skilled) – see Saint-Paul (1996<sub>[23]</sub>) and Bertola (1999<sub>[22]</sub>). Predominantly centralised systems with no co-ordination hold an intermediate position, with somewhat better employment outcomes than in fully decentralised ones but similar outcomes in terms of unemployment.

Collective bargaining also matters for wage dispersion, with greater dispersion in settings with no collective bargaining, e.g. OECD (2011<sub>[23]</sub>), Jaumotte and Buitron (2015<sub>[24]</sub>) and OECD (2018<sub>[10]</sub>).<sup>14</sup> Wage dispersion tends to be lowest among workers who are covered by sector-level bargaining. The lower dispersion in wages associated with sector-level bargaining in part reflects lower returns to education, seniority and potential experience for workers covered by collective agreements (OECD, 2018<sub>[10]</sub>).

The effect on wages is also reflected in the relationship of collective bargaining with productivity growth. By its nature, sector-level bargaining tends to focus on the typical firm in a sector, and as a result, tends to reduce average wage differences between firms in the same sector. Similarly, co-ordinated systems place more emphasis on macro-economic conditions and have a tendency to reduce average wage differences between sectors. In this sense, lower wage flexibility at the sub-national level and lower wage dispersion across firms could be seen as two sides of the same coin. This has raised concerns about efficient job reallocation and productivity growth. OECD (2018<sub>[10]</sub>) shows that 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, the analysis in OECD (2018<sub>[10]</sub>) suggests that *organised* decentralisation which allows sector-level agreements to set broad framework conditions but leaves detailed provisions to firm-level negotiations tends to deliver good employment performance, better productivity outcomes and higher wages for covered workers. By contrast, other forms of decentralisation that simply replace sector- with firm-level bargaining tend to be associated with somewhat poorer labour market outcomes.

### ***Balancing inclusiveness and flexibility in collective bargaining systems***

The main challenge for social partners and governments is to make collective bargaining work better in terms of employment, job quality and inclusiveness, while avoiding that it becomes a straitjacket for firms. 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. Systems characterised by predominantly sector-level bargaining tend to be associated with high coverage and lower inequality, but also risk undermining employment and productivity growth if not well-designed. In contrast, systems characterised by predominantly firm-level bargaining allow for a better alignment of wages and productivity, but coverage tends to be low, limiting the potential benefits of collective agreements mainly to workers in large firms.

The best way of ensuring the inclusiveness of collective bargaining is by having well-organised social partners based on broad memberships (OECD, 2018<sup>[10]</sup>). This allows social dialogue to be widespread at the firm-level among worker organisations and employers and to be based on representative social partners at higher levels (e.g. sector, country). Governments should therefore promote social dialogue in large and small firms alike and allow labour relations to adapt to emerging challenges, including in relation to non-standard forms of work. In systems with sector-level bargaining, administrative extensions are another way of promoting the inclusiveness of collective bargaining by extending the coverage of collective agreements beyond the members of the signatory unions and employer organisations to all workers and firms in a sector. To avoid that extensions harm the economic prospects of start-ups, small firms or vulnerable workers – see Haucap, Pauly and Wey (2001<sup>[25]</sup>), Magruder (2012<sup>[26]</sup>) and Hijzen and Martins (2016<sup>[27]</sup>) –, they need to be well-designed to ensure that the parties negotiating the agreements represent the collective interest of all groups of firms and workers. This can be achieved by subjecting extension requests to reasonable representativeness criteria, a meaningful test of public interest and providing well-defined procedures for exemptions and opt-outs of firms in case of economic hardship (OECD, 2017<sup>[7]</sup>).<sup>15</sup>

Collective bargaining systems characterised by predominantly sector-level bargaining need to allow for sufficient economic flexibility at the firm and country levels. The introduction of flexibility in predominantly sector-level systems has often been considered as requiring a shift from sector to firm-level bargaining. While such a shift would indeed provide more flexibility to firms, it is also likely to induce a decline in bargaining coverage, undermining the inclusiveness of the system. Experience in a number of OECD countries has shown that less radical options are also available, based on the use of controlled opt-outs or sectoral framework agreements that explicitly leave space for further adaptation at the firm or individual level (Ibsen and Keune, 2018<sup>[28]</sup>). In principle, these instruments preserve the integrity of sector-level bargaining, while at the same time enabling a closer link between productivity and working conditions at the firm-level. However, their effectiveness in providing additional flexibility for firms largely depends on having high levels of collective worker representation across firms.

Flexibility to macroeconomic conditions can be fostered through the effective co-ordination of bargaining outcomes across bargaining units (e.g. industries or firms). Effective wage co-ordination can be achieved through peak-level bargaining based on the presence of national confederations of unions and employers that provide guidance to bargaining parties at lower levels. Another possibility is pattern bargaining where a leading sector sets the targets – usually the manufacturing sector exposed to international trade – and others follow. A precondition for a well-functioning co-ordination of wage bargaining is to have strong and representative employer and employee organisations as well as effective mediation bodies (Ibsen, 2016<sup>[29]</sup>).

Collective bargaining systems differ widely across countries in terms of their coverage, the flexibility that they provide to firms and their specific institutional set-up and these differences tend to be deeply rooted in the sociocultural fabric of countries. National traditions in collective bargaining are important and need to be respected. Yet, this does not imply that collective bargaining systems cannot and should not adapt to a changing economic context. Indeed, one of the most salient features of successful collective bargaining systems may be their ability to adapt gradually to changing economic conditions, while considering their national industrial-relations tradition. This depends crucially on the quality of industrial relations (Blanchard and Philippon, 2006<sup>[30]</sup>), but

also on a government that provides space for collective bargaining and social dialogue, while setting the boundaries.<sup>16</sup>

### 8.3. Designing labour-market friendly tax policies

The effectiveness of wage floors – whether statutory or collectively agreed – can be enhanced, and any potentially adverse employment effects mitigated, through their coordination with the system of labour taxation. By the same token, the wage and employment effects of labour taxation depend to an important extent on the nature of wage-setting institutions. This section provides a detailed discussion of the role of labour taxation for labour market performance. While the argument for policy coordination is similar in the context of in-work benefits, this discussion is relegated to Chapter 9 as part of a comprehensive discussion on social protection and activation.

#### *Labour taxes differ significantly in terms of their level and composition across countries*

Labour taxes represent a key source of revenue for governments. A considerable part is used to fund social protection. However, as not all labour taxes are earmarked, they cannot always be linked to specific public social expenditures. Even if they are, the link between individual contributions and expenditures tends to be relatively weak due to the redistributive nature of social protection systems in most countries. This means that individual contributions are best considered as a tax on work rather than a form of mandatory savings by employers or employees. It also implies that the way social protection systems are financed can have important implications for labour market performance.<sup>17</sup>

Labour taxes drive a wedge between the cost of labour to employers and the value of work to employees in terms of labour incomes. This is called the tax wedge. It is calculated by expressing the sum of personal income taxes, payroll taxes, and employee and employer social security contributions, minus benefits as a percentage of labour costs.<sup>18</sup> Figure 8.3 documents the statutory tax wedge averaged across eight different family types in 2015 across OECD countries. Note that the statutory tax wedge does not take account of contributions for private social insurance which are very important in some countries.

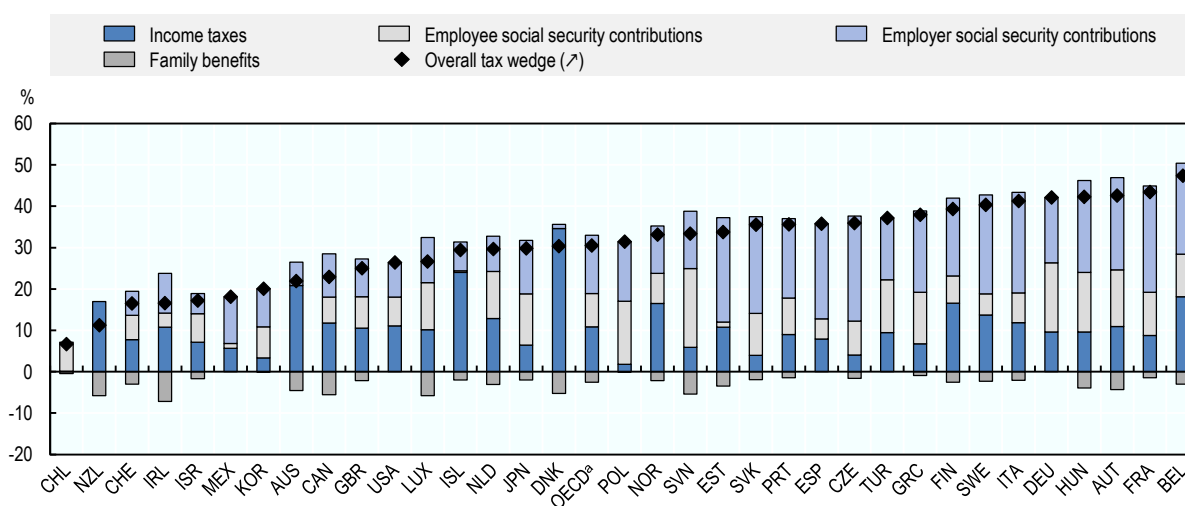
On average across OECD countries, the tax wedge amounted to almost one third of labour costs in 2015. However, it varies considerably across countries, from less than 20% in New Zealand, Czech Republic, Ireland and emerging economies except Turkey, to over 40% in Austria, Belgium and France. These differences reflect to an important extent the importance of public social expenditures. Social security contributions, which are earmarked for social protection, account for over two-thirds of the tax wedge on average across countries. While personal income taxes are not earmarked, a large share of their revenues is generally used to finance social protection (OECD, 2007<sub>[31]</sub>). Social security contributions tend to be more relatively important in countries where personal income taxes are very low such as Chile as well as in several Central and Eastern European countries, while they tend to be less important in countries where social security benefits are means-tested such as Australia and New Zealand, as well as in Denmark and Iceland.

While the average tax wedge for the OECD has been largely stable between 2005 and 2015, this hides significant changes in a number of countries. Significant

decreases are observed in the Netherlands, New Zealand, Sweden and Turkey, while significant increases are observed in Mexico and Luxembourg. In a number of countries, there have also been substantial changes in the composition of the tax wedge. In Denmark and the Netherlands, there has been a substantial shift from social security contributions to personal income taxes. In Hungary, social security contributions have been shifted from the employer to the employee.

**Figure 8.3. The tax wedge and its principal components**

Average statutory tax wedge as % of total labour costs, 2015



Note: Average over eight different household types characterised by marital status, number of children, earnings levels expressed as proportion of average wages and whether there are one or two earners.

a) Unweighted average of countries shown.

Source: OECD (2016<sub>[32]</sub>), *Taxing Wages 2016*, [https://doi.org/10.1787/tax\\_wages-2016-en](https://doi.org/10.1787/tax_wages-2016-en).

StatLink  <http://dx.doi.org/10.1787/888933881287>

### *The tax wedge has potentially important consequences for employment and wages*

Labour taxes can have potentially important consequences for both job quantity and job quality, particularly in the case of low-productivity workers. In a labour market without frictions, labour taxes reduce employment and wages. By increasing the cost of labour to employers and reducing the take-home pay for employees, it reduces both labour demand and supply, resulting in lower employment and wages, without creating any involuntary unemployment. The relative importance of wage and employment effects depends on the bargaining position of employees.<sup>19</sup> To the extent that workers have a relatively weak bargaining position, particularly those with low skills and precarious contracts, they disproportionately bear the economic burden of labour taxes – in the form of lower net wages –, irrespective of their statutory incidence on employers or employees. In a labour market with frictions, labour taxes also affect the unemployment rate when the burden of labour taxation differs between in-work and out-of-work income, i.e. when unemployment benefits are not taxed at the same level as wages (Pissarides, 1998<sub>[33]</sub>) or when the scope of shifting them onto workers in terms of lower wages is limited due to

the presence of statutory or collectively-agreed minimum wages. This is particularly relevant for low-skilled workers.

Cross-country evidence suggests that the average tax wedge tends to increase unemployment and, to a lesser extent, reduce labour force participation (Bassanini and Duval, 2006<sub>[34]</sub>).<sup>20</sup> The effect of the tax wedge on unemployment differs importantly across countries due to its dependence on wage-setting institutions. The tax wedge tends to have a more negative impact on unemployment in countries with a high minimum wage (Bassanini and Duval, 2006<sub>[34]</sub>) or high union membership and a low or intermediate degree of centralisation/coordination (Daveri and Tabellini, 2000<sub>[35]</sub>). By contrast, in countries with low union membership (e.g. mostly English-speaking countries) or countries where collective bargaining is strongly coordinated (e.g. the Nordic countries) the costs of higher labour taxes tend to be largely shifted to workers in the form of lower take-home pay, while the effects on labour costs and employment tend to be limited.<sup>21</sup>

Micro-economic evidence, which typically provides more attention to the specific nature of reforms and the context in which they take place, generally supports cross-country findings. There is some indication that wages adjust more strongly to labour taxes and employment effects tend to be smaller in countries with flexible wage-setting institutions such as Canada, Chile and the United States (Gruber and Jonathan, 1994<sub>[36]</sub>; Gruber and Jonathan, 1997<sub>[37]</sub>; Anderson and Meyer, 2000<sub>[38]</sub>; Deslauriers et al., 2018<sub>[39]</sub>) than in countries with more rigid wage-setting institutions such as Colombia (Kugler and Kugler, 2009<sub>[40]</sub>).<sup>22</sup> The importance of wage shifting also depends on the extent to which contribution payments and benefit entitlements are linked. Based on a series of reforms in France, Bozio, Breda and Grenet (2017<sub>[41]</sub>) show that wage shifting is more important when there is a strong tax and benefit linkage. Moreover, wage shifting appears to be less important when reforms are targeted at specific age groups or are implemented gradually for different groups of workers.<sup>23</sup> Finally, using matched employer-employee data for Norway, Stokke (2016<sub>[42]</sub>) shows that wage shifting tends to be more important for workers with low skills, presumably because of their weaker bargaining position.

There is some indication that the composition of the tax wedge also matters. OECD (2007<sub>[31]</sub>) finds that the negative effect of the tax wedge on unemployment is entirely driven by social security contributions. This may reflect the possibility that personal income taxes do not depend on employment status and highlights the value of using a broad tax base. Alternatively, it may reflect the possibility that the negative unemployment effects of the tax wedge are mitigated by the degree of tax progressivity (Lehmann et al., 2016<sub>[43]</sub>).<sup>24</sup> Since personal income taxes are typically more progressive than social-security contributions, this may explain why the adverse effect of the tax wedge on employment is concentrated among social security contributions. This also would imply that the adverse unemployment effects of the average tax wedge are concentrated among low-wage workers.

The design of the tax wedge should therefore take account of the possible adverse employment effects of overall labour taxes, particularly for low-productivity workers. This is all the more important in the current context of population ageing in many OECD countries, widening inequality and the rising prevalence of non-standard forms of work. However, attention also needs to be paid to the composition of overall labour taxation, its progressivity as well as the link between social security contributions and entitlements. These elements not only matter for employment, but also for job quality, in terms of the take-home pay of employees and the ability to provide security to workers

through social protection, as well as labour market inclusiveness. The remainder of this sub-section develops these issues in more detail by building on the *OECD Principles for Tax Policy Design for Inclusive Growth* (Brys et al., 2016<sub>[44]</sub>).<sup>25</sup>

***Broaden the base and increase the progressivity of labour taxation, while strengthening the responsibility of employers for labour market risks***

A major advantage of broadening the tax base for the purpose of financing of social protection is that it reduces the average burden of taxation on labour. A second advantage is that broadening the tax base has the potential to reduce differences in fiscal treatment based on employment status or income source. Such differences in fiscal treatment may provide incentives for workers to move from dependent employment into self-employment, tax evasion based on the under-declaration of earnings per employee or working in the informal sector. This can have potentially important consequences for the level of social protection for the individuals involved and may undermine the fiscal sustainability of the social protection system as a whole.

The tax base can be broadened by adjusting the composition of labour taxation, removing inefficiencies in labour taxation or relying more heavily on other forms of taxation. The tax base can be broadened by shifting the composition of labour taxes away from social security contributions to other forms of labour taxation with a broader tax base such as personal income or consumption taxes. While social security contributions mainly weigh on payrolls, personal income taxes typically do not depend on labour market status (employed, or non-employed) or income source (dependent or self-employment) and consumption taxes apply equally to all individuals.<sup>26</sup> A second possibility would be to remove inefficiencies in labour taxation by scaling back poorly targeted forms of income tax relief and reduced value-added tax (VAT) rates. These include, for example, the deductibility of mortgage interest from personal income taxes or preferential VAT rates on expenditures that disproportionately benefit rich households. To the extent that this reduces the tax burden on workers with lower incomes this is likely to promote their job prospects and earnings potential. A third possibility would be to increase the reliance on alternative sources of financing. From the perspective of tax efficiency, measures that increase the emphasis of taxation on immobile sources of income are most promising. Real estate taxes provide one example. This would not only be efficient, given the immobile nature of real estate, but also promote inclusiveness since low income households tend to own less property than higher income and more wealthy households. There are also arguments for strengthening the taxation of capital income at the individual level and increasing the reliance on consumption and environmental taxes.

There is also a case to be made for more progressivity in labour taxation. Labour tax progressivity has a tendency to reduce the adverse unemployment effects of labour taxes in general, but particularly for low-skilled workers. By increasing access to work and the take-home pay of low-skilled workers, tax progressivity also increases inclusiveness.<sup>27</sup> Moreover, in contrast to social security contributions, personal income tax systems in many countries have credits or deductions that make effective rates close to zero or even negative at low income levels, which could benefit employment as well. But the benefits of increased tax progressivity in terms of unemployment and inclusiveness need to be weighed against its potential costs in terms of incentives for work, effort, skills development and tax compliance. While there is considerable uncertainty about the optimal degree of tax progressivity – see Boadway (2012<sub>[45]</sub>) and Piketty and Saez, (2013<sub>[46]</sub>) for recent reviews –, taking account of unemployment and equity

considerations in addition to the traditional labour-supply considerations will tend to shift the balance in favour of more labour tax progressivity.

The most obvious way of increasing the progressivity of labour taxation is to shift away from the current emphasis on social security contributions by placing more emphasis on personal income taxes. The benefits of tax progressivity therefore provide an additional argument for shifting towards personal income taxes in addition to its role for broadening the tax base. A partial shift from social security contributions to personal income taxes makes most sense for social programmes that are highly redistributive, such as social assistance, or social expenditures that seek to cover “risks” that are largely independent of the labour market behaviour of employers and employees such as health care, old-age and family allowances. Since health care, old-age pensions, family allowances and social assistance account for a sizeable share of total social expenditures, there is considerable room for such a shift in many OECD countries.

Finally, increasing the responsibility of employers for labour market risks in the context of sickness, disability and unemployment can also be considered. This can be achieved by strengthening the link between employer contributions and expenditures for those components of social protection. In practice, this can be done by giving employers direct responsibility for the cost of certain labour market risks during a time-limited period in combination with a waiting period for benefit entitlements (this is fairly common in the case of sickness, see Chapter 9) or by increasing their responsibility indirectly by linking employer contributions to the firm’s benefit history through experience-rating (e.g. Netherlands in the case of disability, United States in the case of unemployment insurance). Experience-rating social security contributions allows taking account of both benefit inflows and outflows, but also tends to be difficult to administer. Systems based on direct responsibility are easier to administer than systems based on experience-rating, but act primarily on the inflow margin (when time-bound) and, in the case of unemployment insurance, may be of limited effectiveness when a firm’s decision to lay off workers reflects its financial situation and, hence, its ability to take direct responsibility for the cost of unemployment. On the part of employees, increasing the link between entitlements and contributions moderates wage claims and supports labour supply by making labour taxes less distortionary. This logic is most readily applied to pensions.

## Conclusion

This chapter has discussed the role of minimum wages, collective bargaining and labour taxation for promoting a broad sharing of productivity gains. The overall message of the chapter is that wage-setting institutions can contribute to a broader sharing of productivity benefits without undermining employment or the basis for productivity itself. However, for this to be the case, their design is crucial as well as their articulation with other policies and institutions.

The minimum wage represents a useful albeit limited tool for promoting broadly shared productivity gains by ensuring fair pay and preventing exploitation. It may also have implications for wages further up the wage distribution, but the evidence on such “ripple” effects is rather mixed. A good coordination with the tax-and-benefits system is key to the design of minimum wages since this can help increase their effectiveness in boosting take-home pay, while limiting their potential adverse side effects on employment.

Collective bargaining allows for a potentially broader sharing of productivity gains by affecting the wages and working conditions of all workers covered by collective agreements, but has come increasingly under pressure as a result of global competition, technological change and a long-running trend towards decentralisation of bargaining. Moreover, the world of work is changing rapidly, with workers moving more easily between employers, sometimes combining several jobs at the same and the emergence of new forms of work. These challenges require rethinking the role of collective bargaining and collective action in a changing world of work.

To further facilitate a broader sharing of productivity gains, it is important to limit non-wage labour costs, particularly for low-wage workers. This can be achieved by broadening the base for labour taxation, while increasing its progressivity. Of course, the prime reason for having labour taxes in the first place is to finance social expenditures which themselves are an important instrument for a broad sharing of productivity gains. This will be discussed in Chapters 9 and 10.

While wage-setting institutions have a role to play, it is also important to caution against excessive expectations. Wage-setting institutions can correct for poor wage outcomes as a result of a weak bargaining position of workers, but they cannot correct for a very unequal distribution of productivity across firms or workers. This requires different measures related to, for example, technology diffusion and skills development (see Chapters 7, 10 and 14).

## Notes

<sup>1</sup> The role of social benefits, including in-work benefits, will be discussed in detail in Chapters 9 and 10.

<sup>2</sup> Including in the OECD's six key partner countries (Brazil, China, India, Indonesia, Russian Federation and South Africa) and Costa Rica (currently seeking membership) and Colombia (invited to become a member)

<sup>3</sup> See for example the recent debate in the United States between Dube, Lester and Reich (2010<sub>[51]</sub>), Allegretto, Dube and Reich (2011<sub>[52]</sub>), Allegretto et al. (2017<sub>[53]</sub>) on the one hand, and Neumark, Salas and Wascher (2014<sub>[54]</sub>) on the other.

<sup>4</sup> Firms may mitigate the impact of minimum wages on labour costs by adopting more efficient work practices to raise productivity – e.g. Riley and Rosazza-Bondibene (2017<sub>[55]</sub>); Hirsch et al. (2015<sub>[56]</sub>), – reducing non-wage labour costs – e.g. Kaminska and Lewandoski (2015<sub>[57]</sub>) or in the absence of an effective enforcement, firms do not fully comply with the legislation – e.g. Borat, Kanbur and Rayet (2012<sub>[58]</sub>); Rani et al. (2013<sub>[59]</sub>); Garner (2018<sub>[50]</sub>) – or employ workers informally (Comola and De Mello, 2011<sub>[60]</sub>). Weak competition in product and labour markets has a tendency to reduce the impact of minimum-wage increases on employment and may even render them positive. When product market competition is weak, i.e. firms can increase profits by setting prices above the competitive level, employers can shift part of the increase in labour costs that results from a higher minimum wage to consumers through higher product prices (Allegretto and Reich, 2018<sub>[61]</sub>) or, alternatively, absorb some of the increase in labour costs by accepting lower profits (Draca, Machin and Van Reenen, 2011<sub>[62]</sub>). When labour market competition is weak, firms may be in a position to increase profits by offering wages below the competitive level. This situation may arise when there is only a single firm active in a labour market or when there are significant search frictions on the part of workers that limit competition for workers between firms, leading to cases of “monopsony”. In this case, a minimum wage can help to increase wages and employment at the same time.



<sup>5</sup> A significant number of papers have associated minimum wages with lower wage inequality - e.g. DiNardo et al. (1996<sub>[64]</sub>), Lee (1999<sub>[63]</sub>), Autor, Manning and Smith (2016<sub>[65]</sub>) for the United States, DiNardo and Lemieux (1997<sub>[66]</sub>) for Canada, Machin (1997<sub>[67]</sub>) for the United Kingdom and Koeniger, Leonardi and Nunziata (2007<sub>[68]</sub>) for 11 OECD countries.

<sup>6</sup> E.g. Koubi and L’Hommeau (2007<sub>[69]</sub>) and Goarant and Muller (2011<sub>[70]</sub>) for France and Card and Krueger (1995<sub>[2]</sub>), Lee (1999<sub>[63]</sub>), Neumark, Salas and Wascher (2014<sub>[54]</sub>) (2004), Autor, Manning and Smith (2016<sub>[65]</sub>) for the United States and Dickens and Manning (2004<sub>[71]</sub>) (2004) and Stewart (2012<sub>[72]</sub>) for the United Kingdom.

<sup>7</sup> The median includes workers in informal employment where wages tend to be much lower than in the formal sector and compliance is weak. However, even when the index is restricted to formal workers the minimum wage in Colombia remains very high by OECD standards.

<sup>8</sup> This is one of the stated aims of introducing the UK National Minimum Wage. This is also a concern in the United States where significant parts of the Earned Income Tax Credit (EITC) fail to reach low-paid workers – see Rothstein (2010<sub>[73]</sub>); Lee and Saez (2012<sub>[74]</sub>).

<sup>9</sup> In France, the commission has only an advisory role on the discretionary increase that the government can add to the automatic increase due to price and productivity increases. In Ireland and the United Kingdom, the commissions are composed of experts and representatives of the social partners and the government has to justify in parliament the decision not to follow their advice. In Germany, the government can refuse the recommendation of the minimum wage commission, which is composed by social partners and two experts without voting rights, but cannot change it. Finally, in Australia, the *Fair Work Commission* is entirely independent and its decisions are legally binding

<sup>10</sup> Evidence using microdata for the US and for the UK points to an average union membership wage premium of between 10% and 15%.

<sup>11</sup> This motivated the critical stance of the 1994 OECD Jobs Strategy on sector-level bargaining and its recommendation to decentralise collective bargaining. In the original Jobs Strategy, centralised or co-ordinated bargaining arrangements were viewed more positively than sector-level 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. 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.

<sup>12</sup> In part, this reflects the fact that seemingly similar systems differ importantly in the way they operate in practice due to the role of institutional details and the broader socio-economic context (OECD, 2017<sub>[7]</sub>; Hijzen, Martins and Parlevliet, 2018<sub>[79]</sub>).

<sup>13</sup> The Reassessed OECD Jobs Strategy in 2006 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.

<sup>14</sup> See also Blanchflower and Freeman (1993<sub>[47]</sub>), Card, Lemieux and Riddell (2004<sub>[48]</sub>) and DiNardo and Lee (2004<sub>[49]</sub>).

<sup>15</sup> 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 in the presence of firm-level bargaining (OECD, 2018<sub>[10]</sub>).

<sup>16</sup> Governments can promote the quality of labour relations by: fostering broad, representative and well-organised employer and worker associations; creating built-in incentives for the regular re-negotiation of collective agreements; providing high quality and objective statistics on the state of the economy; and supporting mechanisms that enhance the accountability of the social partners for the effective implementation of collective agreements.

<sup>17</sup> To the extent that labour taxes represent a form of mandatory savings, and hence can be considered as part of the compensation package of employees, they should affect neither the utility from work to employees (which matters for labour supply) or the cost of labour to employers (which matters for demand) and leave employment and wages unaffected. However, since in practice the link between contributions and entitlements is imperfect, they can reduce the net take-home pay of the employee, and hence job quality, with negative consequences for labour supply and/or increase the cost of labour to employers and reduce labour demand.

<sup>18</sup> Ideally, consumer taxes would also be included because they create a wedge between the total labour costs faced by the employer and the return to work by the employee. However, this is not done here as this requires taking account of detailed expenditure patterns which is not obvious in practice.

<sup>19</sup> This depends in turn on the relative responsiveness (“elasticity”) of labour demand and supply to wages. If labour demand is perfectly inelastic and labour supply is not, the burden of taxation falls entirely on firms. On the contrary, if labour supply is perfectly inelastic and labour demand is not, the burden of taxation falls entirely on workers. Since labour demand tends to be considerably more elastic than labour supply, the conventional wisdom is that the burden of labour taxation is mostly borne by workers in the form of lower take-home wages.

<sup>20</sup> These results appear to be broadly representative for macroeconomic studies, with similar results found in OECD (2007<sub>[31]</sub>), Murin, De Serres and Hijzen (2014<sub>[76]</sub>) and Gal and Theising (2015<sub>[75]</sub>). Note that these studies typically identify short-run effects. To the extent that wages adjust only slowly to changes in labour taxes one might expect these employment effects to (partially) dissipate with time.

<sup>21</sup> Because of the interaction of labour taxation with wage-setting institutions, it also has been suggested that it can undermine labour market resilience by amplifying the unemployment effects of aggregate shocks (Blanchard and Wolfers, 2000<sub>[77]</sub>).

<sup>22</sup> However, apart from labour market frictions, these differences may also reflect the nature of reforms and particularly, the extent to which contribution payments and benefit entitlements are linked.

<sup>23</sup> Evidence from permanent social security reductions by respectively Saez, Schoefer and Seim (2018<sub>[78]</sub>) and Saez, Matsaganis and Tsaklogou (2012<sub>[80]</sub>) targeted respectively at new hires in Greece and youth in Sweden point at limited wage shifting (and more important employment effects). This may reflect the role of fairness considerations (and legal constraints) that prevent employers from wage discriminating between employees in the same firm based on age or cohort.

<sup>24</sup> Labour tax progressivity may reduce unemployment through three different channels. First, progressivity implies rising marginal tax rates and higher marginal tax rates moderate wage claims (Pissarides, 1998<sub>[33]</sub>). Second, shifting the burden of taxation to high-wage workers reduces the role of interactions between labour taxation and institutional features that create wage floors for low-wage workers. Third, unemployment is reduced because of a composition effect that results from the greater responsiveness of low-wage employment to taxation relative to that of higher-wage workers (Lehmann et al., 2016<sub>[43]</sub>).

<sup>25</sup> These are: broadening tax bases; strengthening the overall progressivity of the tax system; nudging pre-tax behaviours and opportunities; and enhancing tax policy and administration. The discussion here focuses on the first three, with a specific focus on financing social protection.

<sup>26</sup> OECD (2007<sub>[31]</sub>) shows that the required increase in personal income or consumption tax rates to compensate for the loss in revenue of a reduction in the social security contribution rate are much smaller. This is even the case under constant employment.

<sup>27</sup> Not surprisingly, the arguments for in-work benefits are very similar. This is discussed in detail in Chapter 9.

## References

- Aidt, T. and Z. Tzannatos (2002), *Unions and Collective Bargaining : Economic Effects in a Global Environment.*, The World Bank, Washington, DC, <http://documents.worldbank.org/curated/en/831241468740150591/Unions-and-collective-bargaining-economic-effects-in-a-global-environment> (accessed on 15 January 2018). [14]
- Allegretto, S., A. Dube and M. Reich (2011), “Do Minimum Wages Really Reduce Teen Employment? Accounting for Heterogeneity and Selectivity in State Panel Data”, *Industrial Relations: A Journal of Economy and Society*, Vol. 50/2, pp. 205-240, <http://dx.doi.org/10.1111/j.1468-232X.2011.00634.x>. [52]
- Allegretto, S. et al. (2017), “Credible Research Designs for Minimum Wage Studies”, *ILR Review*, Vol. 70/3, pp. 559-592, <http://dx.doi.org/10.1177/0019793917692788>. [53]
- Allegretto, S. and M. Reich (2018), “Are Local Minimum Wages Absorbed by Price Increases? Estimates from Internet-Based Restaurant Menus”, *ILR Review*, Vol. 71/1, pp. 35-63, <http://dx.doi.org/10.1177/0019793917713735>. [61]
- Anderson, P. and B. Meyer (2000), *The effects of the unemployment insurance payroll tax on wages, employment, claims and denials*, <http://www.elsevier.nl/locate/econbase> (accessed on 02 November 2018). [38]
- Autor, D., A. Manning and C. Smith (2016), “The Contribution of the Minimum Wage to US Wage Inequality over Three Decades: A Reassessment”, *American Economic Journal: Applied Economics*, Vol. 8/1, pp. 58-99, <http://dx.doi.org/10.1257/app.20140073>. [65]
- 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*, <http://www.oecd.org/els/workingpapers> (accessed on 30 October 2018). [34]
- 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>. [15]
- Ashenfelter, O. and D. Card (eds.) (1999), *Microeconomic perspectives on aggregate labor markets*, Elsevier. [22]
- Bhorat, H., R. Kanbur and N. Mayet (2012), “Minimum wage violation in South Africa”, *International Labour Review*, Vol. 151/3, pp. 277-287, <http://dx.doi.org/10.1111/j.1564-913X.2012.00149.x>. [58]
- Blanchard, O. and T. Philippon (2006), “The Quality of Labor Relations and Unemployment”, *NYU Working Paper No. FIN-06-038*. [30]
- 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. 1-33, <http://dx.doi.org/10.1111/1468-0297.00518>. [77]

- 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). [47]
- Boadway, R. (2012), *From optimal tax theory to tax policy : retrospective and prospective views*, MIT Press, <https://mitpress.mit.edu/books/optimal-tax-theory-tax-policy> (accessed on 30 October 2018). [45]
- Boeri, T. (2012), “Setting the minimum wage”, *Labour Economics*, Vol. 19/3, pp. 281-290, <http://dx.doi.org/10.1016/j.labeco.2012.01.001>. [6]
- Bozio, A., T. Breda and J. Grenet (2017), “Incidence and Behavioural Response to Social Security Contributions: An Analysis of Kink Points in France”, *De Economist*, Vol. 165/2, pp. 141-163, <http://dx.doi.org/10.1007/s10645-017-9297-4>. [41]
- Brys, B. et al. (2016), “Tax Design for Inclusive Economic Growth”, *OECD Taxation Working Papers*, No. 26, OECD Publishing, Paris, <http://dx.doi.org/10.1787/5jlv74ggk0g7-en>. [44]
- Bryson, A. (2014), “Union wage effects”, *IZA World of Labor*, Vol. 35, <http://dx.doi.org/10.15185/izawol.35>. [8]
- Calmfors, L. and J. Driffill (1988), “Bargaining Structure, Corporatism and Macroeconomic Performance”, *Economic Policy*, Vol. 3/6, p. 13, <http://dx.doi.org/10.2307/1344503>. [11]
- Card, D. and A. Krueger (1995), *Myth and measurement. The new economics of the minimum wage*, Princeton University Press, Princeton. [2]
- 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>. [48]
- Comola, M. and L. De Mello (2011), “How does decentralized minimum wage setting affect employment and informality? The case of Indonesia”, *Review of Income and Wealth*, Vol. 57, pp. S79-S99, <http://dx.doi.org/10.1111/j.1475-4991.2011.00451.x>. [60]
- Daveri, F. and G. Tabellini (2000), “Unemployment, growth and taxation in industrial countries”, *Economic Policy*, Vol. 15/30, pp. 48-104, <http://dx.doi.org/10.1111/1468-0327.00057>. [35]
- Deslauriers, J. et al. (2018), *Estimating the Impacts of Payroll Taxes: Evidence from Canadian Employer-Employee Tax Data*, <http://www.iza.org> (accessed on 02 November 2018). [39]
- Dickens, R. and A. Manning (2004), “Has the National Minimum Wage Reduced UK Wage Inequality?”, *Journal of the Royal Statistical Society. Series A (Statistics in Society)*, Vol. 167, pp. 613-626, <http://dx.doi.org/10.2307/3559879>. [71]
- DiNardo, J. et al. (1996), “Labor Market Institutions and the Distribution of Wages, 1973-1992: A Semiparametric Approach”, *Econometrica*, Vol. 64/5, pp. 1001-44, [https://econpapers.repec.org/article/ecmemetrp/v\\_3a64\\_3ay\\_3a1996\\_3ai\\_3a5\\_3ap\\_3a1001-44.htm](https://econpapers.repec.org/article/ecmemetrp/v_3a64_3ay_3a1996_3ai_3a5_3ap_3a1001-44.htm) (accessed on 23 August 2018). [64]

- 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>. [49]
- Dinardo, J. and T. Lemieux (1997), “Diverging Male Wage Inequality in the United States and Canada, 1981–1988: Do Institutions Explain the Difference?”, *ILR Review*, Vol. 50/4, pp. 629-651, <http://dx.doi.org/10.1177/001979399705000405>. [66]
- Draca, M., S. Machin and J. Van Reenen (2011), “Minimum Wages and Firm Profitability”, *American Economic Journal: Applied Economics*, Vol. 3/1, pp. 129-151, <http://dx.doi.org/10.1257/app.3.1.129>. [62]
- Dube, A., T. Lester and M. Reich (2010), “Minimum Wage Effects Across State Borders: Estimates Using Contiguous Counties”, *Review of Economics and Statistics*, Vol. 92/4, pp. 945-964, [http://dx.doi.org/10.1162/REST\\_a\\_00039](http://dx.doi.org/10.1162/REST_a_00039). [51]
- 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. [18]
- Eurofound (2015), *Pay in Europe in different wage-bargaining regimes*, Publications Office of the European Union, Luxembourg. [16]
- Ferracci, M. and F. Guyot (2015), *Dialogue social et performance économique*, Presses de Sciences Po. [9]
- 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>. [75]
- 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>. [50]
- Goarant, C. and L. Muller (2011), “Les effets des hausses du Smic sur les salaires mensuels dans les entreprises de 10 salariés ou plus de 2006 à 2009 – Emploi et salaires | Insee”, in *Emploi et salaires*, INSEE, Paris, <https://www.insee.fr/fr/statistiques/1373824?sommaire=1373833> (accessed on 23 August 2018). [70]
- Gruber and Jonathan (1997), “The Incidence of Payroll Taxation: Evidence from Chile”, *Journal of Labor Economics*, Vol. 15/3, pp. 72-101, <https://ideas.repec.org/a/ucp/jlabec/v15y1997i3ps72-101.html> (accessed on 02 November 2018). [37]
- Gruber and Jonathan (1994), “The Incidence of Mandated Maternity Benefits”, *American Economic Review*, Vol. 84/3, pp. 622-641, <https://ideas.repec.org/a/aea/aecrev/v84y1994i3p622-41.html> (accessed on 02 November 2018). [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](http://dx.doi.org/10.1016/S0144-8188(01)00061-8). [25]
- Hijzen, A. and P. Martins (2016), “No Extension Without Representation? Evidence from a Natural Experiment in Collective Bargaining”, *IZA Discussion Paper*, No. 10204. [27]
- Hijzen, A., P. Martins and J. Parlevliet (2018), “Collective bargaining through the magnifying glass: A comparison between the Netherlands and Portugal”, *OECD Social, Employment and Migration Working Papers*, No. 199, OECD Publishing, Paris, <http://dx.doi.org/10.1787/06b8e7dd-en>. [79]
- Hirsch, B., B. Kaufman and T. Zelenska (2015), “Minimum Wage Channels of Adjustment”, *Industrial Relations: A Journal of Economy and Society*, Vol. 54/2, pp. 199-239, <http://dx.doi.org/10.1111/irel.12091>. [56]
- 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. [29]
- Ibsen, C. and M. Keune (2018), “Organized Decentralization: Case studies of Germany, Netherlands and Denmark”, *OECD Social, Employment and Migration Working Papers*, forthcoming, OECD Publishing, Paris. [28]
- Jaumotte, F. and C. Buitron (2015), “Inequality and Labor Market Institutions”, *Staff Discussion Note*, No. 15/14, IMF, <https://www.imf.org/external/pubs/ft/sdn/2015/sdn1514.pdf> (accessed on 26 January 2018). [24]
- Koeniger, W., M. Leonardi and L. Nunziata (2007), “Labor Market Institutions and Wage Inequality”, *ILR Review*, Vol. 60/3, pp. 340-356, <http://dx.doi.org/10.1177/001979390706000302>. [68]
- Koubi, M. and B. Lhommeau (2007), “Les effets de diffusion de court terme des hausses du Smic dans les grilles salariales des entreprises de dix salariés ou plus sur la période 2000-2005”, in *Les salaires en France*, INSEE, Paris. [69]
- Kugler, A. and M. Kugler (2009), “Labor Market Effects of Payroll Taxes in Developing Countries: Evidence from Colombia”, *Economic Development and Cultural Change*, Vol. 57/2, pp. 335-358, <http://dx.doi.org/10.1086/592839>. [40]
- Lee, D. (1999), “Wage Inequality in the United States During the 1980s: Rising Dispersion or Falling Minimum Wage?”, *The Quarterly Journal of Economics*, Vol. 114/3, pp. 977-1023, <http://dx.doi.org/10.1162/003355399556197>. [63]
- Lee, D. and E. Saez (2012), “Optimal minimum wage policy in competitive labor markets”, *Journal of Public Economics*, Vol. 96/9-10, pp. 739-749, <http://dx.doi.org/10.1016/J.JPUBECO.2012.06.001>. [74]
- Lehmann, E. et al. (2016), “Beyond the labour income tax wedge: the unemployment-reducing effect of tax progressivity”, *International Tax and Public Finance*, Vol. 23/3, pp. 454-489, <http://dx.doi.org/10.1007/s10797-015-9377-9>. [43]

- Lewandowski, P. et al. (2015), “The effects of minimum wage on a labour market with high temporary employment”, *IBS Working Paper*, No. 07, <https://econpapers.repec.org/paper/ibtpaper/wp072015.htm> (accessed on 23 August 2018). [57]
- Machin, S. (1997), “The decline of labour market institutions and the rise in wage inequality in Britain”, *European Economic Review*, Vol. 41/3-5, pp. 647-657, [http://dx.doi.org/10.1016/S0014-2921\(97\)00027-5](http://dx.doi.org/10.1016/S0014-2921(97)00027-5). [67]
- MaCurdy, T. (2015), “How Effective Is the Minimum Wage at Supporting the Poor?”, *Journal of Political Economy*, Vol. 123/2, pp. 497-545, <http://dx.doi.org/10.1086/679626>. [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, <http://dx.doi.org/10.1257/app.4.3.138>. [26]
- Murtin, F., A. De Serres and A. Hijzen (2014), “Unemployment and the coverage extension of collective wage agreements”, *European Economic Review*, Vol. 71, <http://dx.doi.org/10.1016/j.euroecorev.2014.06.010>. [76]
- Neumark, D., J. Salas and W. Wascher (2014), “Revisiting the Minimum Wage—Employment Debate: Throwing Out the Baby with the Bathwater?”, *ILR Review*, Vol. 67/3\_suppl, pp. 608-648, <http://dx.doi.org/10.1177/00197939140670S307>. [54]
- Neumark, D. and W. Wascher (2008), *Minimum wages*, The MIT Press. [3]
- OECD (2018), “The role of collective bargaining systems for good labour market performance”, in *OECD Employment Outlook 2018*, OECD Publishing, Paris, [http://dx.doi.org/10.1787/empl\\_outlook-2018-7-en](http://dx.doi.org/10.1787/empl_outlook-2018-7-en). [10]
- OECD (2017), “Collective bargaining in a changing world of work”, in *OECD Employment Outlook 2017*, OECD Publishing, Paris, [http://dx.doi.org/10.1787/empl\\_outlook-2017-8-en](http://dx.doi.org/10.1787/empl_outlook-2017-8-en). [7]
- OECD (2016), *Taxing Wages 2016*, OECD Publishing, Paris, [http://dx.doi.org/10.1787/tax\\_wages-2016-en](http://dx.doi.org/10.1787/tax_wages-2016-en). [32]
- OECD (2015), “Recent labour market developments with a focus on minimum wages”, in *OECD Employment Outlook 2015*, OECD Publishing, Paris, [http://dx.doi.org/10.1787/empl\\_outlook-2015-5-en](http://dx.doi.org/10.1787/empl_outlook-2015-5-en). [1]
- OECD (2012), “What Makes Labour Markets Resilient During Recessions?”, in *OECD Employment Outlook 2012*, OECD Publishing, Paris, [http://dx.doi.org/10.1787/empl\\_outlook-2012-3-en](http://dx.doi.org/10.1787/empl_outlook-2012-3-en). [20]
- OECD (2011), *Divided we stand: Why inequality keeps rising*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264119536-en>. [23]
- OECD (2009), “Is Work the Best Antidote to Poverty?”, in *OECD Employment Outlook 2009: Tackling the Jobs Crisis*, OECD Publishing, Paris, [http://dx.doi.org/10.1787/empl\\_outlook-2009-4-en](http://dx.doi.org/10.1787/empl_outlook-2009-4-en). [5]

- OECD (2007), “Financing Social Protection: The Employment Effect”, in *OECD Employment Outlook 2007*, OECD Publishing, Paris, [https://doi.org/10.1787/empl\\_outlook-2007-en](https://doi.org/10.1787/empl_outlook-2007-en). [31]
- OECD (2004), *OECD Employment Outlook 2004*, OECD Publishing, Paris, [http://dx.doi.org/10.1787/empl\\_outlook-2004-en](http://dx.doi.org/10.1787/empl_outlook-2004-en). [19]
- OECD (1997), *OECD Employment Outlook 1997*, OECD Publishing, Paris, [http://dx.doi.org/10.1787/empl\\_outlook-1997-en](http://dx.doi.org/10.1787/empl_outlook-1997-en). [12]
- Piketty, T. (2013), “Optimal Labor Income Taxation”, *Handbook of Public Economics*, Vol. 5, pp. 391-474, <http://dx.doi.org/10.1016/B978-0-444-53759-1.00007-8>. [46]
- Pissarides, C. (1998), “The impact of employment tax cuts on unemployment and wages; The role of unemployment benefits and tax structure”, [https://ac.els-cdn.com/S0014292197000901/1-s2.0-S0014292197000901-main.pdf?\\_tid=2eece62f-8f9b-4142-b0f5-81ebbc4482f9&acdnat=1529670679\\_30b750816fa72ad85a74ec19411996d9](https://ac.els-cdn.com/S0014292197000901/1-s2.0-S0014292197000901-main.pdf?_tid=2eece62f-8f9b-4142-b0f5-81ebbc4482f9&acdnat=1529670679_30b750816fa72ad85a74ec19411996d9) (accessed on 22 June 2018). [33]
- Rani, U. et al. (2013), “Minimum wage coverage and compliance in developing countries”, *International Labour Review*, Vol. 152/3-4, pp. 381-410, <http://dx.doi.org/10.1111/j.1564-913X.2013.00197.x>. [59]
- Riley, R. and C. Rosazza Bondibene (2017), “Raising the standard: Minimum wages and firm productivity”, *Labour Economics*, Vol. 44, pp. 27-50, <http://dx.doi.org/10.1016/J.LABECO.2016.11.010>. [55]
- Rothstein, J. (2010), “Is the EITC as Good as an NIT? Conditional Cash Transfers and Tax Incidence”, *American Economic Journal: Economic Policy*, Vol. 2/1, pp. 177-208, <http://dx.doi.org/10.1257/pol.2.1.177>. [73]
- Saez, E., M. Matsaganis and P. Tsaklogou (2012), “EARNINGS Earnings Determination and Taxes: Evidence From a Cohort-Based Payroll Tax Reform in Greece”, *The Quarterly Journal of Economics*, Vol. 127/1, pp. 493–533, <https://doi.org/10.1093/qje/qjr052>. [80]
- Saez, E., B. Schoefer and D. Seim (2018), *Payroll Taxes, Firm Behavior, and Rent Sharing: Evidence from a Young Workers' Tax Cut in Sweden* \*, <https://eml.berkeley.edu/~saez/saez-schoefer-seimAER18sweden.pdf> (accessed on 04 November 2018). [78]
- Saint-Paul, G. (1996), *Dual labor markets: A macroeconomic perspective*, MIT Press. [21]
- 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 UK, London, [http://dx.doi.org/10.1007/978-1-349-11562-4\\_7](http://dx.doi.org/10.1007/978-1-349-11562-4_7). [17]
- Stewart, M. (2012), “Wage inequality, minimum wage effects, and spillovers”, *Oxford Economic Papers*, Vol. 64/4, pp. 616-634, <http://dx.doi.org/10.1093/oep/gps003>. [72]
- Stokke, H. (2016), *Regional payroll tax cuts and individual wages: Heterogeneous effects across education groups* \*, <https://www.sole-jole.org/16217.pdf> (accessed on 02 November 2018). [42]



Traxler, F., S. Blaschke and B. Kittel (2001), *National Labour Relations in Internationalized Markets*, Oxford University Press, Oxford, [13]  
<http://dx.doi.org/10.1093/acprof:oso/9780198295549.001.0001>.



**From:**  
**Good Jobs for All in a Changing World of Work**  
The OECD Jobs Strategy

**Access the complete publication at:**  
<https://doi.org/10.1787/9789264308817-en>

**Please cite this chapter as:**

OECD (2019), “Promoting fair wages and labour taxes”, in *Good Jobs for All in a Changing World of Work: The OECD Jobs Strategy*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/9789264308817-9-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to [rights@oecd.org](mailto:rights@oecd.org). Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at [info@copyright.com](mailto:info@copyright.com) or the Centre français d'exploitation du droit de copie (CFC) at [contact@cfcopies.com](mailto:contact@cfcopies.com).