The Pay Equity Effects of Minimum Wages and Pay Bargaining

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Introduction

The over-riding objective of a minimum wage is to redistribute earnings to the lower paid (Brosnan 2001, Freeman 1996). Unions, employers and governments in different countries at different points of time may emphasize other related goals – such as increased labour market participation (by providing better incentives), controlled wage growth, improved social dialogue, reduced informal employment, higher income tax revenues and lower welfare and in-work tax benefits (Koçer and Visser 2009, Recio 2006, Saget 2008) – but it is the social goal of improving the position of low-wage workers that underpins policy design.

The economic logic of this policy position remains controversial. The notion that a labour market intervention is justified by its long-term distributive consequences is contested by those who claim the actual consequences will in fact be precisely the contrary of what is intended (for a critical review, see Heery 2000); disemployment effects will reduce the share of earnings to the low paid, it is claimed, since while insiders may benefit from greater pay equity this will be offset by a growing share of outsiders.2 However, as is now well known, investigation of the impact of minimum wage rises finds broadly neutral employment effects (see further Chapter 4, this volume).

Alternative theoretical models identify small positive employment effects, explained by the ability of employers to exercise a degree of monopsony power (Manning 2003). Empirical evidence from the United States – considered significant since it is generally perceived to best approximate the competitive labour market of economics textbooks – finds no evidence of disemployment effects (Card and Krueger 1995; Dube, Lester and Reich 2010). Also, a recent assessment of the first
decade of a statutory national minimum in the United Kingdom reports no overall significant effect on employment and in fact a positive effect on employment growth in those local labour markets with a high share of minimum wage workers (Dolton, Rosazza-Bondabine and Wadsworth 2010). Moreover, in the relatively more institutionalized labour market of Germany there is further empirical evidence of no disemployment effects resulting from the introduction of legally binding minimum wages in eight industries (Möller 2012).

Recent years have witnessed a shift in thinking that has renewed interest in the pay equity effects of minimum wage systems, especially their impact on the incidence of low-wage employment, gender pay inequality and the degree of wage compression in the lower half of the wage structure. Of particular relevance for this chapter are the findings of cross-national, comparative investigations, since these illuminate how the different rules of countries’ minimum wage systems shape pay equity in conjunction with a variety of industrial relations conditions, especially collective bargaining and the strength of trade unions (EC 2008, Lucifora, McKnight and Salverda 2005, OECD 1998, Pontusson, Rueda and Way 2002, Salverda and Mayhew 2009). Building on this work, our research sought to interrogate whether an ostensibly similar regulatory change – namely a minimum wage rise – has a similar effect on pay equity in different country settings. As described in the introduction to this volume, the full range of socio-economic effects of regulatory reforms are unlikely to map neatly against a universal equation of cause and effect since each regulatory function within a country operates in concert with other institutions and is further tempered by the varying strategies and tactics of social actors (such as government, employer associations and trade unions). The notion of ‘regulatory indeterminacy’ (Deakin and Sarkar 2008) is therefore a valuable analytical tool. It captures ideas from comparative employment studies that institutional rules: are embedded in their societal context (e.g., Maurice, Sellier and Silvestre 1986); respond to conditions and policies of economic development (Bosch, Lehnorf and Rubery 2009); undergo change and transformation over time (shaped by but not limited to a country’s historical trajectory) (Streeck and Thelen 2005); and have significant but variable effects on social and economic conditions in different countries and sectors. In the analysis of the pay equity effects of minimum wage rules, regulatory indeterminacy arises out of the important institutional interactions between a country’s minimum wage system and its model of collective bargaining. In this chapter we argue that the endeavour in many cross-national analyses of minimum
wages to unearth a single, universal pay equity effect is misguided as
in practice the variety of effects on the shape of the wage distribution
are contingent upon the wider arrangements for collective bargaining –
that is, on the approaches of government and social partners to
minimum wage policy, on coverage levels of collective bargaining and
on the degree of overlap between a minimum wage and base rates in
collective agreements.

The chapter has two further analytical points of interest. The first is
a focus on pay equity effects among jobs at the bottom end of the labour
market. In line with Dunlop's (1957) notion of wage contour, such jobs
can be usefully characterized as 'minimum wage contour' jobs in the
sense that the statutory minimum wage is a key external wage that
influences long-run wage changes and brings rates in a variety of firms
and sectors into connection with each other (see Rodgers, Spriggs and
Klein 2004). We know from evidence of the ripple effects of minimum
wages that there are significant differences across countries in the degree
to which wages further up the wage structure adapt to minimum wage
rises (Gautié 2010; Koubi and Lhommeau 2007; Stewart 2010; Wicks-Lim
2008). The second point of interest is the interrogation of the practice
of pay bargaining – at sector and company levels – that shapes the pay
equity effects of minimum wage changes. While a minimum wage may
provide the enabling conditions for pay equity outcomes, there is a gap
in the literature with respect to what strategies and responses of govern-
ments and trade unions are effective or otherwise in shaping pay equity
(see, also, Grimshaw, Bosch and Rubery 2013).

The research on which this chapter draws was designed to interro-
gate the interaction between minimum wage policy developments and
collective wage agreements in key sectors of employment, particularly
to identify unions’ efforts to pursue egalitarian pay bargaining in
a context of changing minimum wage policy. This chapter draws on
some of the key results of this research project (Grimshaw 2013). It
involved five country teams in Europe, each of which collected original
interview data and interrogated collective agreements in key sectors of
employment that were significantly influenced by, or contributed to,
developments in minimum wage policy. We begin by addressing the
question of the pay equity effects of a minimum wage.

Does a higher minimum wage improve pay equity?

Investigation of the redistributive effects of a minimum wage tend to
focus on the relationship between the presence and relative level (or
generosity) of a minimum wage and indicators of pay equity. The standard measure for the minimum wage level is the Kaitz index, which expresses the value of the minimum wage as a percentage of median earnings; median full-time earnings are typically used in comparative studies and median earnings for all employees in single-country studies for reasons of data availability. Indicators of pay equity in these studies tend to focus on one or more of the following: the incidence of low-wage employment (defined as the proportion of workers earning less than two-thirds of median earnings); the gender pay gap (the percentage difference between women’s and men’s average pay); women’s risk of low pay compared to men’s; overall wage inequality (the gap between the highest and lowest decile wage levels – D9/D1); and inequality in the bottom half of the wage distribution (the gap between the lowest decile wage and median earnings – D5/D1). Most start with the argument that the introduction, or increase of the level, of the minimum wage is likely to have a significant pay equity effect for one or more of the following reasons:

i) it ought to reduce the share of workers earning below the minimum (subject to non-compliance rates);

ii) it may generate a spike (or truncation) at the level of the minimum wage in situations where employers respond by uprating workers’ pay instead of making them redundant;

iii) it is likely to have disproportionate effects on certain workforce groups where there is segregation in low-wage sectors; and

iv) it may have additional ‘spillover effects’ characterized by further increases in wages for jobs paid above the minimum.

Several studies find systematic evidence (through application of wage regressions or graphical representations) of a positive effect of the presence and level of a minimum wage on pay equity. The OECD’s (1998) review of single-country studies conducted in the 1990s (comprising of four US studies, two UK and two Canadian studies – see Annex Table A5.2 D1) found broad support for the wage compression effects of minimum wages in direct relation with its presence and relative level. Also, comparative analysis of data for 12 OECD countries finds a positive association between the Kaitz index and the D5/D1 ratio, as well as the incidence of low pay (op. cit: chart 2.3). More recent data analysis confirms these results. For 23 OECD countries over the period 1985–2005, Sniekers (2010) finds that the presence of a minimum wage (in 15 of the 23 countries) had an increasingly effective impact in
Proof

containing wage inequality in the bottom half of the wage distribution since the late 1990s; the inclusion of time-varying effects is a novel contribution to the literature. Furthermore, among countries with a minimum wage, higher levels compress wage inequality at the bottom and there is even evidence that a higher level compresses wage inequality at the top (by raising median wages through spillover effects). Also, Lucifora, McKnight and Salverda's statistical analysis finds multiple evidence of a significant negative effect of the Kaitz index on the incidence of low pay for 20 OECD countries – both in the form of bi-variate correlations and factor analysis (2005, tables 5 and 6).

Updating these analyses using the most recent data, simple correlation tests for those OECD countries and Central and Eastern European countries for which data are available suggest weak to moderately strong evidence of a relationship between the value of a country's minimum wage and measures of pay equity. Figure 5.1 presents the relationship between the Kaitz index (the value of each country's minimum wage relative to median earnings of full-time workers) and two selected measures of pay equity – the incidence of low pay (defined as above, albeit limited to full-time employees because of data availability) and women's risk of low pay compared to men. The country measures of the Kaitz index and low-pay incidence are averaged over three years (2006–08) to reduce possible data problems reported in a particular year, although only one year of data (2008) is reported for the gender differences in low-pay incidence due to data availability. Figure 5.1 reports data from the OECD earnings database. A fuller account that also reports the evidence from the European Structure of Earnings Survey is provided elsewhere (Grimshaw and Rubery 2013).

For the sample of 16 countries reported in Figure 5.1(a), the data suggest a negative and moderately strong relationship between the Kaitz index and the incidence of low-wage employment (correlation index is –0.58). There is, therefore, support for the statement that countries with a higher minimum wage relative to median earnings are more likely to have a lower incidence of low-wage work than countries with a low-value minimum wage. Nevertheless, there is considerable variation within the contours of this general pattern. For example, the minimum wage is considerably higher in Ireland than in Spain (Kaitz measures of 51.1 and 44.1, respectively), but Ireland has a higher not lower incidence of low-wage work than Spain (estimated at around 21 per cent and 16 per cent, respectively). The extreme positions of France and the United States best typify the negative relationship. However, France is also often cited as illustrative of the risks of exceeding the upper threshold to
Figure 5.1 Relationship between the Kaitz index (2006–08) and two measures of pay equity

Note: Selection of countries differs in each chart because of data availability. All earnings data refer to full-time workers only. The Kaitz index in both charts is averaged over 2006–08, OECD low-pay data also for 2006–08, but the ESES data in the lower chart refer only to 2008. Low wage data for France is missing from the OECD data reported in the upper chart and therefore is replaced by ESES data reported in the Eurostat publication ‘Statistics in Focus’ (March 2010); France is also missing from the EU-SILC data (lower chart) and excluded here.

Source: OECD earnings database for minimum wages and low wage incidence. EU-SILC data (2008) for low wage incidence by gender (kindly provided by Anthony Rafferty, EWERC, University of Manchester).
the minimum wage beyond which it undermines redistributive effects. Pitched too high, the minimum wage may displace low-wage workers from employment and therefore reduce their share of earnings. Also, as we explore below, a high minimum wage may encroach on the freedom of social partners to set wages and address low pay through collective bargaining. These issues are central to the French experience where, in recent years, the high level of the statutory minimum has been blamed by some commentators for the persistent high rate of unemployment and crowding out of collective bargaining (Gautié 2010); these risks are weighed against the gains of the reduced incidence of low-wage work.

The minimum wage level appears to be less strongly associated with country differences in gender pay equity. Figure 5.1(b) displays a weak to medium-sized, negative relationship (a correlation measure of –0.37), such that the higher the minimum wage the lower the gender gap in incidence of low-wage employment. Slovenia and Hungary are illustrative of countries where a relatively high value minimum appears to be a preventive measure against women incurring a very high relative risk of low pay; in these countries women’s risk of low pay is contained below one and a half times that of men’s. Conversely, countries where women face the highest gender bias in the distribution of low-wage work are among those with the lowest value minimum. This includes the Czech Republic, where women face a four-fold risk of low-wage work, and Estonia, Slovakia and Spain, where women’s risk of low-wage work is at least two and a half times that of men’s and the minimum wage is among the lowest.

Given the scope for variability in the relationship between the minimum wage level and low-pay incidence it is perhaps unsurprising that a small number of comparative studies, in fact, find an ambiguous effect. Salverda and Mayhew’s (2009, p. 147) analysis of ten countries finds ‘no obvious relationship’ between the minimum wage (in this case expressed as a percentage of the low-pay threshold) and the incidence of low pay. Also, analysis of 16 OECD countries by Pontusson, Rueda and Way (2002) suggests the generosity of a minimum wage has no effect on compression of wages in the bottom half of the distribution. Their analysis is distinctive in purporting to capture the minimum wage level effect by assuming it is positively associated with left-oriented governments; this is clearly less persuasive than direct use of the Kaitz index given the experience of several right-wing governments in Europe raising statutory minimum wages (see the case of Hungary below). Nevertheless, the study usefully argues for closer inspection of distinctive minimum wage effects across countries with centralized versus...
decentralized wage formation systems in light of the finding that the
greater is bargaining centralization, the smaller are (assumed) minimum
wage raising effects of left government since unions with greater
bargaining power are more successful in boosting the wages of low-paid
workers (Pontusson, Rueda and Way 2002, pp. 305–7); the study thus
makes a valuable contribution to our understanding of the factors that
shape regulatory indeterminacy.

Differences in results are to some extent a consequence of differences
in definitions, data sets, statistical techniques, time periods and country
samples. It is notable, however, that where studies find limited effects
of the generosity of a statutory minimum wage, other wage-setting
variables, such as collective bargaining coverage or union density, take
up the explanatory power. What is clear, therefore, is that wage-setting
institutions are significant factors in shaping pay equity. In most of the
econometric studies cited, the models aim to separate out the effect
associated with the minimum wage value. However, the statistical
techniques used to disentangle the direct effect of a statutory minimum
wage on pay equity, while controlling for other factors, provide only
one means of interrogating its redistributive function. The consider-
able cross-national variation in results suggests it may be fruitful to
explore country effects in closer detail and, in particular, that it may be
necessary to drop the assumption of standard effects (see, also, Schmitt
and Mitukiewicz 2012). The following section argues that the specific
role and effectiveness of minimum wage policy in improving pay equity
is best investigated through the lens of the wider national model of
industrial relations, especially concerning the strategies of the main
social actors and the form of wage-setting designed and implemented
through collective bargaining.8

Interaction effects

Like other labour market regulations, the possibility of multiple forms
of institutional interactions makes a priori predictions of minimum
wage effects very difficult (see Chapter 1). The effects of a minimum
wage on pay equity cannot be disentangled from a country’s model
of industrial relations. In the first instance, we need to recognize that
most European countries characterized by an inclusive system of indus-
trial relations do not have a national statutory minimum wage, in part
because joint regulation of wages for the most part provides reasonable
protection for low-wage workers – a functional equivalent to statutory
minimum wage protection (Schulten 2006, p. 12; see Appendix 2).9
Among countries with a statutory minimum, the evidence suggests that higher value minimum wages, which tend to support greater pay equity, are more likely to be found in industrial relations models that have a dual or inclusive character; that is, stronger collective bargaining appears to complement a higher value minimum wage. Also, analysis of the dual institutional features of minimum wage system and collective bargaining coverage shows that a country’s institutional character serves as a relatively robust indicator of pay equity outcomes. However, the cross-national pattern is not systematic and recent trends point to evidence of government intervention to raise the minimum wage value in several countries where exclusive industrial relations models have caused a spiralling of low-wage employment (Vaughan-Whitehead 2010). Agency therefore matters, suggesting the need to analyse the particular approaches of government and social partners towards the shaping of minimum wage policy and the associated pay equity effects.

Do more inclusive industrial relations models support higher value minimum wages?

Existing studies provide two good reasons for the proposition that a higher value minimum wage is complemented by strong collective bargaining coverage (defined as the proportion of workers whose pay is set by collective agreement between unions and employers). First, dualist and inclusive models of collective bargaining (following Gallie’s 2007 application of the terms to collective bargaining coverage shows that a country’s institutional character serves as a relatively robust indicator of pay equity outcomes. However, the cross-national pattern is not systematic and recent trends point to evidence of government intervention to raise the minimum wage value in several countries where exclusive industrial relations models have caused a spiralling of low-wage employment (Vaughan-Whitehead 2010). Agency therefore matters, suggesting the need to analyse the particular approaches of government and social partners towards the shaping of minimum wage policy and the associated pay equity effects.

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level of collective bargaining is on average 48 and for those with weaker collective bargaining coverage it is 43 (averaged over the 2006–08 period); moreover, the correlation index is moderately strong and positive (0.50). The institutions of minimum wages and collective bargaining thus appear to be complementary in so far as a high value minimum wage does not preclude inclusive bargaining and vice versa.11

There is an important possible objection to the argument so far which concerns the relationship between inclusive bargaining models and the share of the working population in employment. If inclusive bargaining models are associated with lower rates of employment then the pay equity effects enjoyed by those in work are offset by lack of job opportunities. However, the empirical evidence does not support this objection; a statistical test of association between the Kaitz index and employment rates for OECD countries reveals very weak measures of correlation and, in fact, for
core-age female workers and for both males and females with less than secondary education the relationship is positive, not negative (Appendix 1).

What about the level of minimum wage floor in inclusive countries, such as Sweden, or dualist countries, such as Germany, without a statutory national minimum wage? It is not possible to estimate a single Kaitz index for these countries, but analysis of base wage rates in sector collective agreements provides a useful point of comparison. In Germany, the new binding collectively agreed sectoral minimum rates (shown here for seven sectors) suggest a relatively high value minimum wage (Figure 5.3(a)). The lowest minimum rate is for the laundry sector, so this might therefore be taken as a proxy for the minimum wage floor so far agreed for the two regions of the German labour market; it equates to around 49 per cent of average earnings in the west and 57 per cent in the east. For Sweden, the lowest sectoral minimum is 49 per cent of average earnings, set in local government (Figure 5.3(b)), so again we find a relatively high minimum wage, although, of course, in both cases it is not possible to compare a sector minimum with a national wage floor given obvious differences in workforce coverage.

What are the combined effects of minimum wages and collective bargaining on pay equity?

Given the possibility of complementary institutional interlinkages, what are the combined pay equity effects of country systems of minimum wages and collective bargaining? Figure 5.4 classifies 29 OECD and Central and Eastern European countries into four groups as having either strong or weak collective bargaining coverage and either a high or low/absent minimum wage. The incidence of low-wage employment is shown in the left-hand vertical column. On average, countries with strong collective bargaining coverage and a high value minimum wage (first country column) experience the lowest incidence of low-wage employment (12.6 per cent). Countries with strong collective bargaining and either a low-value minimum wage or no statutory national minimum also enjoy a relatively low incidence of low-wage employment (12.8 per cent). By contrast, both groups of countries with weak collective bargaining – whether or not the minimum wage is of a high value, a low value or absent – score a higher incidence of low-wage employment on average; moreover, no individual country scores an incidence of less than 14 per cent, which is greater than the average for the other two groups of countries with strong collective bargaining coverage.

There are nevertheless several countries that do not fit the general patterns thus far described. First, countries such as Spain and Luxembourg...
Figure 5.3  The value of sector-based minimum wages in Germany and Sweden (relative to average earnings) (%)

Note: (a) Hourly minimum rates are those agreed and implemented in 2010. We have used the most recently available average earnings data which are for 2008. (b) Data kindly provided by Per Skedinger; see, also, Skedinger (2010).
Figure 5.4 Combined effects of collective bargaining and minimum wages on the incidence of low-wage employment

Notes: Categories of collective bargaining coverage defined as: strong coverage if 50 per cent plus; weak if less than 50 per cent. Categories of minimum wage Kaitz values defined as: high value if greater than 0.45 (country average for the averaged 2006–08 period) and low value if equal to or less than 0.45.

Source: OECD minimum wage database for ratio of minimum wage to median earnings of full-time employees; collective bargaining data from ICTWSS (Visser 2011); low-pay incidence data from two sources: European Structure of Earnings Survey (Eurostat ‘Statistics in Focus’ (March 2010)) and OECD database for Australia, Canada, Japan, New Zealand, United States.

register a low-value minimum wage that is out of kilter with their strength of collective bargaining (see Figure 5.2). Among the countries listed in Figure 5.4, Spain ranks seventh in its strength of collective bargaining coverage but 12th in the value of the minimum wage. There are specific reasons for this apparent disconnect. One is the legacy of using the minimum wage as a monthly income standard for various welfare and pension payments (Recio 2006), which inevitably proved an obstacle for many years to increasing the level. Despite their apparent strength in the labour market, Spanish unions have thus traditionally disregarded the minimum as a wage fixing instrument and concentrated instead on raising minimum pay rates in the hundreds of regional collective agreements (Cebrián et al. 2008). Matters changed in 2004 when the welfare
links were abolished and the government set a goal to increase the minimum wage relative to average earnings (Banyuls, Cano and Aguado 2010). This policy generated an uplift in the Kaitz index during 2004–07 by around four percentage points; nevertheless, at just 44.1 in 2009 the Kaitz measure is still below the European average of 47.2.

A contrasting situation applies in the case of New Zealand, Ireland and, to a lesser degree, Hungary, which arguably have a higher than anticipated minimum wage value given their weak collective bargaining coverage. In these countries, minimum wage policy developments to some extent reflect a wider international pattern of change. If we interrogate the relationship between change in minimum wage value and strength of collective bargaining coverage then, for European countries, we find a relatively strong negative relationship – a correlation measure of –0.65 between the change in minimum wage value during 2000–09 and the strength of collective bargaining coverage averaged over 1995–2006 (see Figure 5.6 below). In other words, in this period countries in Europe with weak levels of collective bargaining coverage were more likely than countries with high levels of coverage to have experienced increases in the Kaitz index. Of the top ten countries with the largest rise in the minimum wage during 2000–09, seven were countries with an exclusive model of industrial relations – that is, weak and generally uncoordinated collective bargaining coverage. Hungary is illustrative.

Following a steady decline in the minimum wage during the 1990s – a decline in the Kaitz index from 0.43 to 0.37 during 1992–2000 (OECD data13) – a centre-right government unilaterally hiked up the minimum from HUF25,500 to HUF40,000 in 2001, followed by a further significant rise in 2002 (Neumann 2010). OECD data suggest the Kaitz index improved from 0.37 (2000) to 0.51 (2001) and then to 0.57 (2002). At the same time, however, the intervention was allied with a reform of the minimum wage fixing process that undermined tripartite negotiation and established a new unilateral government competence (Neumann 2010).

A third exceptional case is Germany, alone, in describing a unique position (among the 29 countries in Figure 5.4) of an above-average incidence of low-wage employment and an above-average level of collective bargaining coverage. Its incidence of low-wage work is estimated at 19.6 per cent (ESES data), above the average 17.1 per cent. Part of the problem is Germany's falling collective bargaining coverage. While Sweden has enjoyed a stable level of collective bargaining coverage in the last two decades and Denmark a rising coverage, Germany has witnessed a fall from around 75 per cent in the late 1980s to less than two-thirds coverage.
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today (ICTWSS data). Its system of joint wage regulation, coupled with
the refusal by employers to apply extension mechanisms and the practice
of increasing numbers of German companies to outsource activities to
non-covered companies, therefore no longer provides an effective func-
tional equivalent to statutory minimum wage protection. Moreover, as
with other countries that use collective bargaining as the basis for provid-
ing protection for the low paid, Germany has faced serious challenges as
to the effectiveness of its institutions because of the liberalization of the
European services industry and increased labour migration (Woolfson,
Thornqvist and Sommers 2010). The European Court of Justice rulings
on the Laval, Viking and Rüffert cases mean that a minimum rate estab-
lished through collective bargaining that is not extended nationally is
not considered as a minimum rate of pay.\textsuperscript{14} Alber (2010, p. 28) argues
the legal basis for these rulings is questionable and can be interpreted as
a non-neutral assessment of those member states that have established
wage protection through collective agreement rather than legislation. In
a context of increasing numbers of posted workers, these rulings have
posed a serious dilemma for labour relations and wage bargaining and
prompted the development of new legally binding agreements in several
sectors of the German economy.

These country examples provide valuable case studies of the agency
of government intervention in shaping minimum wage policy with
varying degrees of support and pressure from trade unions in response
to the problem of low-wage employment. The institutional character
of the industrial relations model is therefore not the only determi-
nant of the minimum wage value, nor do the combined institutional
effects of collective bargaining and minimum wage system necessarily
generate the expected pay equity effects. Actions and responses of
social actors towards minimum wage policy vary over time and across
countries. In addition, across a variety of country models of industrial
relations trade unions can develop distinctive strategies as part of col-
lective pay bargaining that enhance the pay equity impact of a rising
minimum wage. We investigate these issues in the following section.

Pay equity outcomes and the role of institutions and actors

The above analysis supports the widely held view that wage-setting
institutions – including features such as the degree of bargaining
centralization, the strength of union bargaining power and the level
of minimum wages – exert a considerable influence on measures of
pay equity. This result is important since it means for a given level
of skill composition (influenced by education, technology and trade) the different characteristics of wage-setting institutions can have determining effects on wage structure. However, as we hinted above, an institutionalist perspective requires an understanding of country specificity and the particular actions and strategies of social actors, especially government and trade unions in the case of minimum wage policy and collective bargaining. Moreover, institutions are not static. They are responsive to the changing strategies and actions of government and social partners. In this section we investigate the diverse pay equity outcomes of minimum wage policy with the aim of identifying and articulating the strategies and actions of collective bargaining actors that are likely to impact upon pay equity outcomes. Figure 5.5 illustrates how different pay equity outcomes can be associated with different pay bargaining actions, sector conditions and minimum wage policy development.

The first pay equity effect – a high and relatively stable wage floor – is associated directly with the relative value of the statutory minimum wage and/or the relative value of binding minimum standards set through sector collective bargaining. The former route is most likely to materialize where unions enjoy a relatively strong labour market presence and are able to make a positive input into the minimum wage fixing process. In the OECD in general and the country cases in particular the minimum wage value is positively associated with strength of collective bargaining and countries with strong collective bargaining and high value minimum wages are most likely to enjoy a low incidence of low-wage employment. Furthermore, presence of trade unions (and/or works councils) is critical to ensuring compliance by employers with the statutory wage rules.

Evidence from the alternative route to a high wage floor – that of setting binding sectoral standards – suggests unions have been effective in establishing a relatively high wage floor, again supporting the notion that dual and inclusive bargaining models are conducive to high value minimum standards. In Germany, we showed earlier that the lowest collectively agreed minimum wage (found in the laundry sector) would appear to be relatively high. In fact, at 49 per cent (in western Germany), it is far higher than the European average minimum wage level of 37 per cent and approximately on a par with the French minimum wage at 48 per cent (expressed as a percentage of average earnings). However, the experience of Germany suggests this route of institution building is lengthy and cumbersome. The idea for the strategy came from bilateral agreements in the early 1990s between the German federal government
• Strong social dialogue input in MW policy
• Strong CB/strong union presence complements high value MW and ensures high compliance
• Legally binding standards (e.g., Germany’s new sector minima)

High, stable wage floor

• Proactive policy focus to address low-wage employment and weakness of other forms of wage protection
• Risk of poor coordination with CB and crowding out of CB, versus improved platform for raising CB rates of pay

Rising wage floor

• Linking of collectively negotiated wage grids with MW increases
• Supported by strong union presence, high sector CB coverage, extended agreements
• Undermined by non-compliance with CB wage rates

Long-reaching ripple effect

• Union/employer strategy to secure a base rate premium over the statutory MW, or multiple binding minima (e.g., Hungary’s skilled MW)
• Supported by union pay equity strategy to improve wage floor (e.g., bottom-weighted pay deals, living-wage campaigns)

Baseline ripple effect

• Large spike at minimum wage/erosion of wage differentials
• Weak unions and poor/absent CB coverage
• Large baseline ripple effects with no long-reaching effects
• CB pay falls behind MW rises/lagged catch-up

Wage compression

**Figure 5.5** Diverse pay equity outcomes of minimum wage and collective bargaining interactions
and Central and Eastern European countries that set quotas for the temporary deployment of posted workers. Its use was especially marked in the construction sector, up to a peak of 188,000 posted workers in 1996 (Bosch and Zühlke-Robinet 2003). According to EU law, terms and conditions of employment could be set in accordance with the country of origin principle, subject to generally binding agreements or other statutory wage protection in the host country (Bosch and Weinkopf 2013, Cremers, Dølvik and Bosch 2007). In the German construction sector, while the collective agreement was binding at this time, the wage clause was not, leading to a pattern of social dumping and undermining of the collectively agreed pay rates. The employers’ association and the trade union (IG BAU) responded by agreeing a system of legally binding minimum wages for the sector, set out in the Posted Workers Act 1996, after successfully overcoming opposition from the Confederation of German Employers Federation (Bosch and Kalina 2010). Following a political compromise that removed the need for sectoral social partners to win the approval of the employers’ confederation, other sectors have followed suit. During 2007–13, twelve sectors established a legally binding minimum wage on the basis of the German Posted Workers Act (Arbeitnehmerentsendegesetz). In most of these sectors postings from other EU countries did not play a role. But since Germany did not have a legal mechanism to set minimum wages the German Posted Workers Act is increasingly used to regulate domestic wage competition. A further difficulty with this pay equity approach is coverage, since many low-wage workers in Germany are employed in workplaces and sectors where union presence is weak or absent.

A second pay equity effect is associated with a rising wage floor. While a high wage floor is still, on average, associated with a country’s strength of collective bargaining coverage and presence of trade unions, this association does not apply to an analysis of changes in the minimum wage level over time. During the 2000s, as we noted above, several countries with relatively weak collective bargaining coverage uprated their minimum wages quite considerably, albeit for a variety of reasons. Figure 5.6 presents this pattern of change for European countries. In the United Kingdom, through what is believed to be an effective process of social dialogue (see Brown 2009), the tripartite Low Pay Commission recommended a series of minimum wage upratings during 2003–06 explicitly designed to lift its position in the wage distribution in order to improve conditions for low-wage workers. In other countries, the state has taken the lead. For example, Hungary uprated its minimum wage more than any other country during 2000–09 despite being among
the group of countries with weak collective bargaining. However, the risk is that low-wage workers come to depend almost entirely on this one strategy to improve their pay prospects and employers look to the minimum wage as the best source of information about the going rate of wages in a range of low-paying sectors. While any uprating of a minimum wage has the welcome effect of lifting the relative position of lowest-paid workers and raising the societal norm regarding what is considered exploitative pay, in different economic contexts it may tie low-paid workers to the minimum in periods when minimum wage rises are below average wage growth. It also raises a question about whether or not it crowds out union mobilization. As Figure 5.6 shows, France appears to be an exception to the recent pattern as its increase in the minimum wage and the coverage of collective bargaining are both high. However, increases in the minimum wage are linked to
a specific formula that is said to have compensated, to some extent, for weak trade unions and the quality of collective bargaining, particularly in low-wage sectors (Schmid and Schulten 2006; Gautié 2010, pp. 168–71).

In the context of either high or rising minimum wage floors, the overall effects on pay equity depend on the size and nature of the ripple effects. These in turn depend on context and strategies. One of the major uncertainties, therefore, in understanding the pay equity effects of a rising minimum wage relates to variation in ripple effects (Pollin et al. 2008). As Freeman argued (1996, p. 645), we might anticipate country and sector differences due to varying systems of collective bargaining. Where the minimum wage acts as a key rate determining the base rates in inclusive collective agreements – in France, for example – then pay differentials are likely to be at least partially restored following minimum wage rises because unions (and employers) seek to restore differentials related to experience, job responsibility, skill and/or qualification.15 Also, in Hungary, Neumann’s (2010, table 17) analysis of pay rates in the construction sector agreement (2006–10) shows that the rate of pay for semi-skilled workers retained a pay differential of between 9 per cent and 12 per cent, with unskilled pay pegged to the national minimum wage, thus ensuring close to a 100 per cent ripple effect for semi-skilled workers. Where this type of pay bargaining and protection of pay differentials occurs, we can expect ‘long-reaching’ ripple effects as minimum wage rises extend up the pay scale for higher-paid workers. In the United States and the United Kingdom, by contrast, weaker unions and lower collective bargaining coverage generate weaker ripple effects from a minimum wage rise (Stewart 2010; Wicks-Lim 2008, table 11.1). In practice, this may mean that only the lowest-paid worker earns a rise in line with the minimum wage or even that workers paid at the next higher grade experience a pay cut (a negative ripple effect) so that the employer can offset the higher minimum wage costs. Certain types of ripple effects may be legally binding, such as Hungary’s second statutory national minimum wage that applies to jobs requiring skilled workers and is set at a fixed differential of 20 per cent above the standard minimum wage. Nevertheless, the coverage of this legally binding ripple effect is contingent upon what jobs are defined to require skilled workers, which has become controversial. For example, powerful retail employers have successfully lobbied government for the declassification of cashiers as skilled staff, thereby evading the ripple effect (Banyuls et al. 2013).

Ripple effects can be expected to fluctuate in size over time in a context of shifting product and labour market conditions as well as unions’
Effectiveness in pay equity bargaining. Empirical evidence from two pay agreements in the United Kingdom is illustrative. In one retail company pay agreement (a leading supermarket chain), the union won a series of bottom-weighted pay deals favouring the low paid and thereby improved the internal position of the lowest paid relative to higher-paid colleagues. However, a poorly formulated pay equity strategy and a weak bargaining position relative to the retail company meant that the positive premium over the national minimum wage fell by over a third over the 11-year period (Figure 5.7). By contrast, the public hospitals sector agreement (known as ‘Agenda for Change’) achieved a considerable improvement in the premium of the base rate paid to hospital cleaners over the national minimum wage, from 7 per cent to 18 per cent. A better defined union strategy of pay equity, coupled with a stronger potential for worker mobilization in the health sector, led to the negotiation of a one-off 24 per cent increase in the bottom rate of

![Figure 5.7](image-url) Changing ripple effects of a rising minimum wage on the bottom rate in two UK collective agreements, 1999–2010 (%)

*Note:* Pay data refer to the base rates in the public sector hospitals agreement (‘Agenda for Change’ for 2004–10 and the Whitley Council agreement for ancillary services workers up to 2003) and the retail company agreement.

*Source:* Grimshaw, Shepherd and Rubery (2010, tables 11 and 16).
pay at the original signing of the agreement in 2004, followed by the
elimination of bottom grades (in 2009) and higher pay settlements for
the lowest paid (2007 and 2010).

A fifth pay equity effect is an outcome of weak ripple effects, namely
a spike at the minimum wage and wage compression among the lowest paid. In countries and sectors with weak trade unions and low
collective bargaining coverage, a pay bargaining practice of pegging
wages to the statutory minimum is associated with a compression of
wage differentials during a period of minimum wage rises. In the United
Kingdom, weak ripple effects are one of the main reasons why during
the 2003–07 period, when the minimum wage increased relative to
average earnings, the incidence of low-wage work remained at a high
and stable level, around 21–22 per cent. With only a limited propor-
tion of workers benefiting from pay bargaining that can restore pay
differentials, there are insufficient ripple effects to lift pay above the
low wage threshold, which at two-thirds of median earnings remains
substantially above the level of the national minimum wage. The share
of minimum wage earners is highest in the sectors of hairdressing, hos-
pitality, cleaning and retail (ranging from 15 to 27 per cent – LPC 2007,
Figure 2.12), where coverage of collective bargaining is very low, just
6 per cent, for example, in hospitality (Achur 2010). The significance
of the practice of using the minimum wage as a going rate in the United
Kingdom is supported by case study and survey evidence: for example,
Lloyd, Mason and Mayhew (2008) report that six of eight hotels inves-
tigated paid room attendants at or only slightly above the national
minimum wage, four of the eight retail case study firms set entry pay
only a few pence above the minimum and all six food processing firms
investigated paid agency workers at the minimum wage. Moreover, the
increasing share of minimum wage workers in the retail case studies
reported in Mason and Osborne (2008) is associated with revised con-
tracts that reduce pay enhancements for weekend working and public
holidays as well as opportunities for bonuses.

In Croatia also, the evidence shows a tendency towards wage compres-
sion but this time as a result of bottom-weighted pay bargaining which
has done little more than ensure that total earnings for the low paid
are at least equal to the statutory minimum wage in a context of an
unstable minimum wage policy environment where collective bargaining
wage increases have constantly fallen behind minimum wage increases.
Between 2005 and 2009, the bottom rate of pay agreed in the extended
retail sector collective agreement fell from 23 per cent to 43 per cent below
the national minimum wage (Banyuls et al. 2013, p. 212). The situation
has become something of a convention since it is expected that employees receive additional pay (seniority and other enhancements – similar to the practice in France), which counts towards the minimum wage. Nevertheless, the level of basic pay is now so low that social partners have had to regularly agree special lump-sum allowances (bottom-weighted) to ensure that low-wage workers’ total wage meets minimum wage rules. Company-level pay bargaining provides higher base rates for some, but there are few agreements (just 11 in the retails sector in 2009, for example). Thus, the need for pay negotiators to continuously try to catch up has resulted in a more compressed wage distribution (Banyuls et al. 2013).

Conclusions

This chapter addresses the pay equity effects of minimum wages through interrogation of pay bargaining processes and strategies within different country models of industrial relations. It contributes to several recent comparative studies that generate mixed evidence concerning the impact of minimum wages (largely associated with the value relative to median earnings) on pay equity measures such as the gender pay gap and the incidence of low-wage work. Our review of European wage data lends support to those studies that find a negative association between the value of a minimum wage, on the one hand, and, on the other, the incidence of low-wage work and the risk of low-wage work faced by women compared to men. Nevertheless, the specificity of country patterns calls for further interrogation of the processes of wage determination and pay equity outcomes within the context of country and sector models of wage bargaining. The chapter therefore contributes to the broader argument made in this book that labour market regulations have non-determinant effects by analysing how the aggregate level institutional interlinkages are articulated through processes and outcomes of pay bargaining drawing on the results of a European research project.

We identify five pay equity outcomes associated with varying industrial relation systems and specific bargaining strategies. First of all, the setting of a high wage floor through a high minimum wage is in many countries a reflection of strong collective bargaining. High values of minimum wages are also associated with collectively agreed and extended binding standards at sector level – as in Germany – but these high floors only provide limited sectoral coverage. A second pay equity outcome is that of a rising minimum wage floor. On the one hand, a rising minimum wage may be required in many countries to lift the wage floor to a suitable level in a context where rates of pay for many
jobs have fallen below acceptable standards of living. On the other hand, in circumstances where either social dialogue is not effectively incorporated into the procedures for minimum wage setting, or unions have very limited presence in low-wage sectors, the unintended effect may be the displacement of collective agreements in setting minimum rates in some sectors, which may leave these workers exposed to any reversal of a policy of improving minimum wages in line with or faster than other rates. A third pay equity outcome is where a high or rising minimum wage gives rise to strong ripple effects. This is likely where collective bargaining is able to peg either the sector minimum or the whole wage grid to increases in the minimum wage, and as a consequence the spillover effect of rising minimum wages on low-paying sectors will be long-reaching. However, the ability of unions to ensure long-reaching ripple effects depends both on their organization and influence and on their strategies and commitments to pay equity outcomes. A common union pay bargaining strategy in recent years has been to focus on securing a fourth pay effect, referred to as a ‘baseline ripple effect’ – that is, to uplift the bottom rate of pay in the collective agreement to secure a positive gap above the minimum wage. This strategy places less strategic emphasis, however, on restoration of pay differentials and therefore can be viewed as facilitating a potentially costless win–win outcome for employers who are able to offset costs by freezing pay for those workers on higher pay grades. This may be one reason why the living-wage campaign in the UK has proven popular among both right and left political commentators in recent years (Featherstone et al. 2012).

Where unions are weak and/or pay bargaining strategies are poorly formulated, the likely effect of a high or rising minimum wage is a more compressed wage structure in the bottom segment of the labour market, our fifth pay equity effect. The rising Kaitz index in countries like the United Kingdom and Hungary is not an indicator of an improved position of the class of low-wage workers but is, in fact, entirely consistent with their falling behind higher-paid workers as the entire wage distribution becomes more and more skewed towards the left (in statistical terms, positively skewed with a high peak). The risk, during the austerity period of polarized job growth in Europe (Hurley, Fernández-Macías and Storrie 2013), is that this trend continues and we will witness a bifurcation of the wage and job structure with especially severe implications for women in employment who account for the majority of workers in the bottom half of the distribution. Nevertheless, while economists highlight the so-called exogenous forces of technology and internationalization of production and trade, our analysis points to the endogenous factors that
shape the relative wages negotiated in different sectors and countries. Further research would be welcome both to interrogate in more detail the country and sector contingencies and to collect more detailed pay data over time associated with a wider range of pay agreements. Trade unions still, on the whole, display a tendency for improving pay equity through their approach to pay bargaining (see Visser and Checchi 2009 for a review), but further research is needed to improve our understanding of the conditions that underpin their success in a context of changing minimum wage policy, uncertain macroeconomic conditions and varying strength of unions in shoring up collective bargaining coverage.

Appendix 1

Drawing on data for a sample of OECD countries and new EU member states, the following four graphs plot the relationship between the Kaitz index (value of minimum wage relative to median earnings) and the employment rates for specific groups of workers. Figure A5.1 covers male and female employment rates for workers aged 25–54 years old. Figure A5.2 covers male and female workers with less than secondary school education. For core-age workers, the association between variables is very weak. Interestingly, however, it is positive for women (0.171) and negative for men (−0.205). For workers with less than secondary school education the correlation measures are positive for both women and men, 0.136 and 0.138, respectively.

Figure A5.1  The Kaitz index and employment rates for core-age workers

Note: Data for 18 OECD countries, plus five new EU member states.

Figure A5.2 The Kaitz index and employment rates for workers with less than secondary school education

Note: Data for 17 OECD countries.
Source: OECD minimum wage database, 2009 data; OECD Employment Outlook, 2007 data.

Figure A5.3 Collective bargaining coverage in countries with and without a statutory minimum wage, 2006 (EU-27 plus Croatia)

Note: Data for Romania missing, 2006 data, except Greece and Hungary (2005).
Source: ICTWSS (Visser 2011); except Croatia (Nestić and Bakarić 2010) and Ireland (eironline 2007); see Appendix Table A1.
Notes

1. Damian Grimshaw and Jill Rubery are Co-directors of the European Work and Employment Research Centre (EWERC) and Professors at the University of Manchester, Manchester Business School. Gerhard Bosch is Professor of Sociology and Director of the Institute for Work and Skills at the University of Duisburg-Essen, Germany.

2. As Heery (2000) observes, this counter-claim is a classic example of what Hirschmann (1991) refers to as the ‘perversity thesis’, which involves a method of argument that seeks to demonstrate that the end result is absolutely the opposite of what was intended by the policy intervention.

3. The findings from these studies confirm the more general observation that cross-national variation in wage structures (e.g., inter-decile inequality, gender pay gap and low wage incidence) are shaped over the long term by differences in collective bargaining centralization and coverage, union density and level of minimum wages (Fortin and Lemieux 1997; Whitehouse 1992).

4. The authors were members of a five-country project coordinated by Damian Grimshaw: ‘Minimum wage systems and changing industrial relations in Europe’, VS/2009/0159 (EWERC, University of Manchester). The project is funded by the European Commission, DG Employment, Social Affairs and Equal Opportunities, Social Dialogue Unit during 2009–10. This chapter draws extensively on the results of this project, which are available in the form of five national reports and a comparative report on the EWERC website – for Croatia (Nestić and Bakarić 2010), Germany (Bosch and Weinkopf 2010), Hungary (Neumann 2010), Spain (Banyuls et al. 2010), the United Kingdom (Grimshaw, Shepherd and Rubery 2010) and the comparative report (Grimshaw and Rubery 2010) – and in an edited book (Grimshaw 2013).

5. The degree of enforcement of a minimum wage is also an important factor but data on employer compliance with minimum wage legislation is not widely available. A notable exception is a study using Korean data that shows non-compliance rates (rising since 2004 and more than 10 per cent during 2006–10) were a significant factor during 1993–2008 in explaining variation in the low-pay incidence and in fact, neither the level of the minimum wage nor collective bargaining coverage were significant variables during the 2002–08 period (Hwang and Lee 2011).

6. The coefficients of the Kaitz index in both wage regressions are statistically significant to 1 per cent, but the size of effect is larger for the lower half of the wage distribution measured by DS/D1 (Sniekers 2010).

7. The data derive from multiple sources: estimates of the Kaitz index for 2009 derive from the OECD minimum wage database; the incidence of low pay (full-timers only) is taken from the European Structure of Earnings Survey; and the relative risk of women’s low pay compared to men derive from EU-SILC data.

8. The lens of analysis is widened further in some recent studies (Rubery and Grimshaw 2011; Salverda and Mayhew 2009) to include interaction effects with the institutions of employment protection and welfare benefits, on the one hand, and economic conditions relating to aggregate demand and industry competition, on the other.
There are seven EU Member States without a national statutory minimum wage: Austria, Denmark, Finland, Italy, Cyprus, Sweden and Germany. Austria implemented a new minimum wage in 2009 (a gross monthly wage of €1,000 or €14,000 per year accounting for the 14 monthly payments) as part of a national, cross-sectoral agreement negotiated by social partners. However, it is not a statutory requirement and this has raised questions regarding incomplete coverage of workers in sectors and regions where social partners have not concluded a collective agreement (Hofbauer and Adam 2009).

Gallie defines these employment regimes as follows: inclusive regimes design policies to extend employment and employment rights as widely as possible, while dualist regimes focus less on overall employment levels and more on providing strong rights to a core workforce at the expense of poor conditions for a peripheral workforce (2007, p. 17).

Our findings complement the EC (2008) study which reports various statistically significant correlations between the Kaitz index and industrial relations variables including employer density (0.741), union density (0.600) and bargaining centralization (0.581).

The Kaitz index for eastern Germany is higher than in western Germany – a range of 57–83 per cent compared to 49–69 per cent. Thus, although average earnings in eastern Germany are significantly below those in western Germany (€11.50 compared to €15.62 in 2008), the rates are set at a comparatively higher level in eastern Germany.

These figures are supported by national earnings data which suggest a drop in the relative level of the minimum as a share of average earnings from 36 per cent to 29 per cent during 1992–2000 (Neumann 2010).

In 2007, the European Court of Justice ruled that a Latvian construction firm (Laval un Partneri) could not be forced to enter into collective negotiations with a Swedish union on rates of pay for its posted workers. Moreover, in a controversial legal decision, the strike was ruled illegal because it was said to have precluded the company’s freedom to provide services with its posted employees. The decision affirmed the criteria of the Posted Workers Directive which requires firms from other member state countries to comply with a national MW set through legislation.

In France, Koubi and L’Hommeau (2007) report a relatively strong ripple effect in a representative sample of firms during 2000–05 up to a wage level equivalent to twice the SMIC, with a 100 per cent ripple effect for wages between 1 and 1.1 of the SMIC (cited in Gautié 2010, p. 158).

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