Minimum wage trends during the crisis:
The problem of stronger 'minimum wage contours' and weaker unions

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Introduction

Until the recent financial crisis, analyses of the distributive effects of statutory minimum wages had demonstrated their progressive impact in improving the position of the lowest paid in labour markets in a range of countries. There are good political economy reasons for wage-setting interventions of this sort (Kaufman 2010; Prasch 2005) and plenty of evidence across an array of diverse countries of their positive effect in reducing the incidence of low-wage jobs, narrowing the gender pay gap and compressing the overall wage structure (eg. Koeniger et al. 2007; Lucifora et al. 2005; Grimshaw and Rubery 2013). However, the crisis has changed matters. In many European countries a combination of falling real wages and diminished trade union influence over wage settlements has meant that statutory minimum wage rules have played an increasingly important role not only in setting the wage floor but also, in many sectors and low-to-medium skill jobs, in shaping norms about the acceptable wage for the job. There is a growing risk, therefore, that in many low-wage segments minimum wages become the primary external influence over wage setting, creating what some American studies refer to as 'minimum wage job contours' (Levin-Waldman 2002; Rodgers et al. 2004). These 'wage contours', building on Dunlop's (1957) notion, may be more likely during a period when company performance has weakened and public sector organisations have faced fiscal constraints. As a consequence, it is likely that wage structures in certain countries are becoming increasingly skewed with the modal wage at or only a little above the national minimum wage for key workforce groups, especially for low educated women, part-time workers and young workers.

Consideration of trends in real average wages and the wider industrial relations context is essential for understanding the precise effects of minimum wages on the wage structure during the economic crisis. Raising the relative value of the minimum wage during a period when average wages are falling in real terms may meet the policy goal of lifting the wage floor and preventing exploitative wages but may weaken the wage bargaining position of workers and unions seeking more extensive wage rises. Much depends on the coordination of minimum wage policy with collective bargaining. In countries where unions have retained an active role in minimum wage policy and collective bargaining coverage is relatively strong, it is likely that minimum wage rises can be complemented by an appropriate defence of pay differentials (by age, experience, qualification, skill) to maximise positive ripple effects for workers paid above the minimum wage. However, in countries where there is a disconnect between unions' pay strategy and minimum wage policy and/or unions have a weak coverage of collective bargaining, then falling average wages are likely to generate a significant spike in the wage distribution at the minimum wage as employers compensate the rising cost of the wage floor with real wage cuts in jobs traditionally paid above the minimum.

The diverse intersections between minimum wage and industrial relations institutions set the scene for an appraisal of efforts to improve low wages during the crisis, initiated by

different social actors. For example, governments may seek to address the problem of a fall in living standards and rising demands on welfare budgets (especially in-work benefits) by raising the minimum wage, but this may exacerbate the segmentation effect and distort pay differentials where companies are unable or unwilling to extend pay rises further up the pay-scale. Campaign groups may act, for example, through living wage local protest actions, but again these may or may not address the issue of how to sustain fair pay differentials among workers of varying skill and experience; such actions also introduce explicit principles of paying workers according to an estimated cost of living rather than company or individual performance which may have worrying distortionary effects over the medium-term. This paper draws on an analysis of international minimum wage policy trends, wage distribution data and case-study analysis of the UK to interrogate such issues and raise policy recommendations for countries facing the need to address low pay during the economic crisis.

1. Post-crisis trends in minimum wages: assessing real and relative values

Conventional analysis of trends in minimum wages typically assesses change in both the real and relative values, since each indicator is needed to provide a rounded assessment of the purchasing power and relative labour market position conferred by the minimum wage. Moreover, deterioration in the value of either indicator can act as a spur to action by governments, unions or campaign groups.

Since the initial eruption of the economic crisis of 2008-2009, trends in the real and relative value of statutory minimum wages have varied considerably across countries. Table 1 sets out patterns for 24 OECD countries drawing on the OECD's earnings database. Perhaps surprisingly, given the severe impact of the crisis on real wages and pressures on governments to use wage policy to reduce labour costs, most countries (13 out of 24) experienced a combination of flat and/or rising real and relative minimum wages (groups A and B in table 1). Among this group, seven countries enjoyed significant improvements in both real and relative minimum wage values (a rise of 2% or more in the real level or two points or more in the Kaitz index) - especially Slovenia, where the minimum wage increased by 22% in real terms and 11 points in the Kaitz index (from 0.49 to 0.60, taking it to the top five in the OECD), Hungary, where the minimum wage indicators increased by 16% and 6 points, respectively, and Canada where the minimum rose by 7% against prices and 3 points against full-time median earnings.

Table 1. Patterns of change in real MW and Kaitz index, 2009-2013

		Kaitz index		
		Down	**Flat**	**Up**
Real MW	**Up**	C. Chile	B. New Zealand Turkey	A. Canada Hungary Japan Korea Poland Slovakia Slovenia
	Flat	C. Australia Estonia	B. Belgium France Israel Luxembourg	B. --
	Down	C. Greece Ireland	C. Czech Republic Netherlands Spain	C. Portugal

	UK US

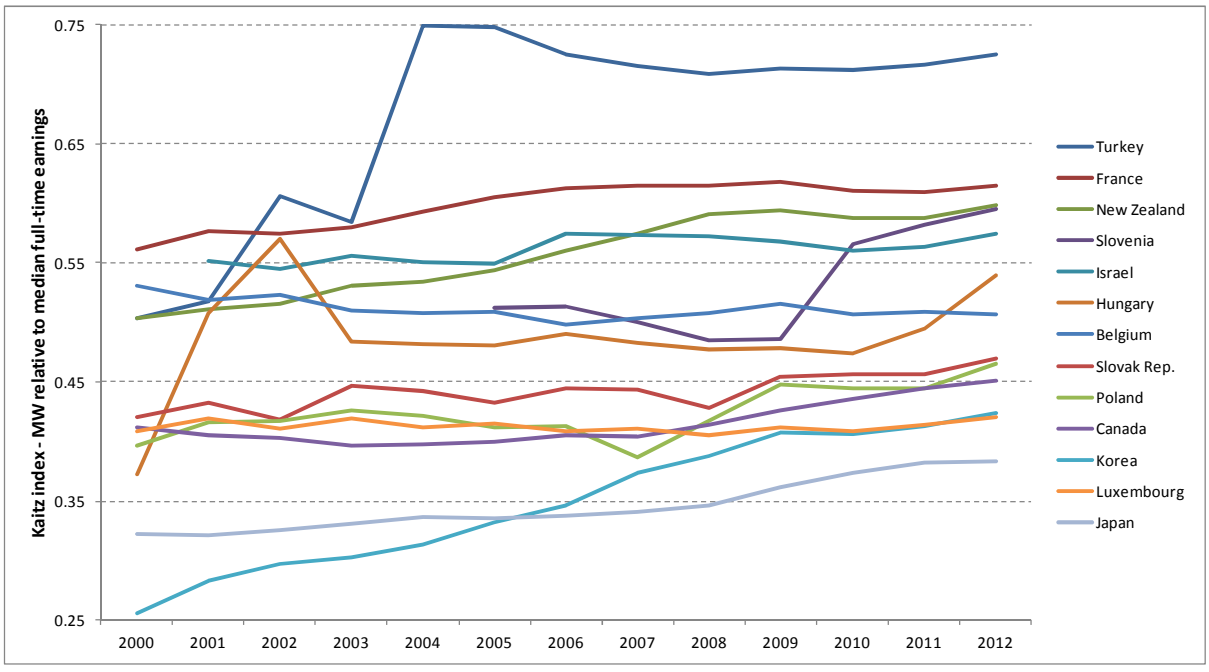
Notes: Kaitz trend is 2009-2012 hourly MW relative to full-time employees' median wage except Chile 2009-2011 and Mexico relative to mean earnings; Real MW trend is hourly MW deflated by national CPI and converted to $PPP to cover 2009-2013 except France 2009-2012, Portugal 2010-13; Up is for rises of 2%+ (Real MW) or 2+ points (Kaitz) and Down is for falls of more than -2% or -2 points. Mexico excluded since no median earnings data for Kaitz measure. Canada data are for the average of the provincial minimum wages.
Source: OECD.StatExtracts, available at http://stats.oecd.org/Index.aspx?DataSetCode=RMW.

For most of these 13 countries, the positive trend during and after the crisis in fact represents a continuation of what appears to have been a fairly strongly embedded trend since 2000. The general impression of the Kaitz values in figure 1a (country groups A and B) is one of an upwards trend with limited change in the ranking of countries over the 12-year period. In some countries, the crisis in fact appears to have led to a reinforcing of the upwards trend, which is at first sight somewhat remarkable given the resurgent neoliberal agenda across Europe to improve competitiveness by cutting labour costs.

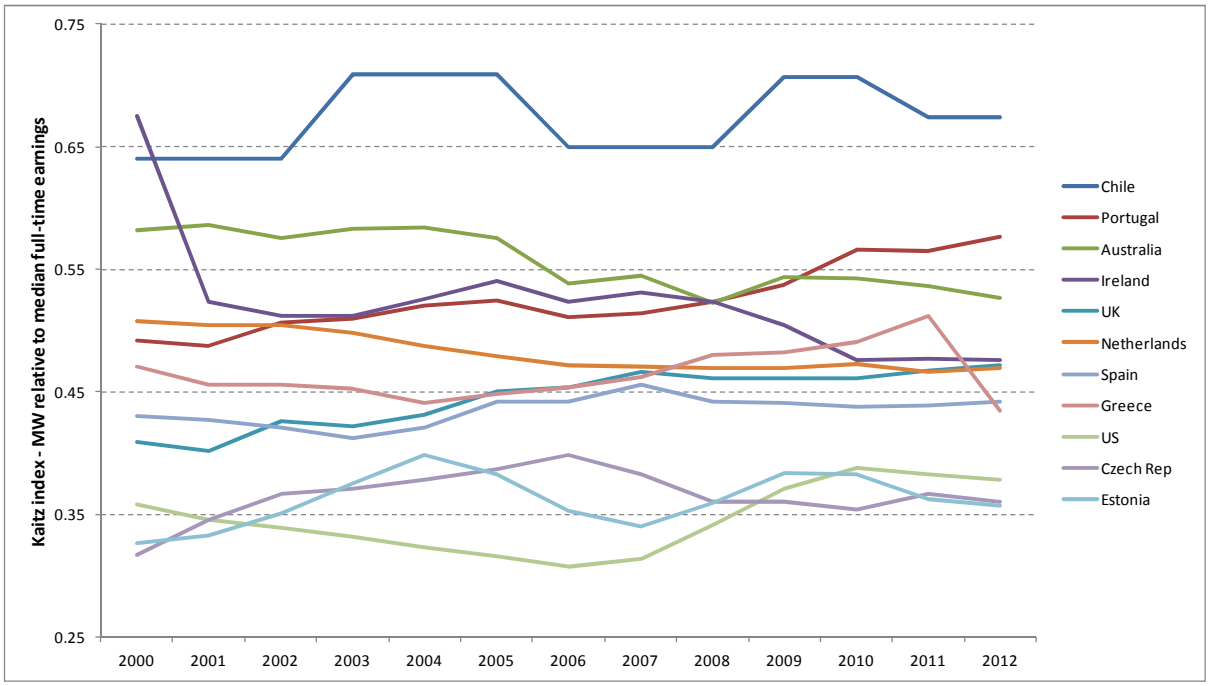
A second group of 11 countries (group C) experienced negative change in one or both indicators of minimum wage value during the post-2009 period (table 1, figure 1b). In five countries, the relative value (Kaitz) fell during 2009-2013, including the well-known cases of Greece and Ireland where the minimum wage also fell in real terms, but also Estonia, Australia and Chile. Along with Greece and Ireland, the minimum wage fell in real value in a further six countries, most notably the Czech Republic where it fell by 12% since 2007 and the United States 7% since 2010. However, unlike Greece and Ireland, the Kaitz index has held level in these countries and even, in the case of Portugal, risen.

Figure 1. Trends in the Kaitz index (MW relative to median earnings), 2000-2012

a. Countries with steady/improved MW indicators during the crisis (groups A and B)



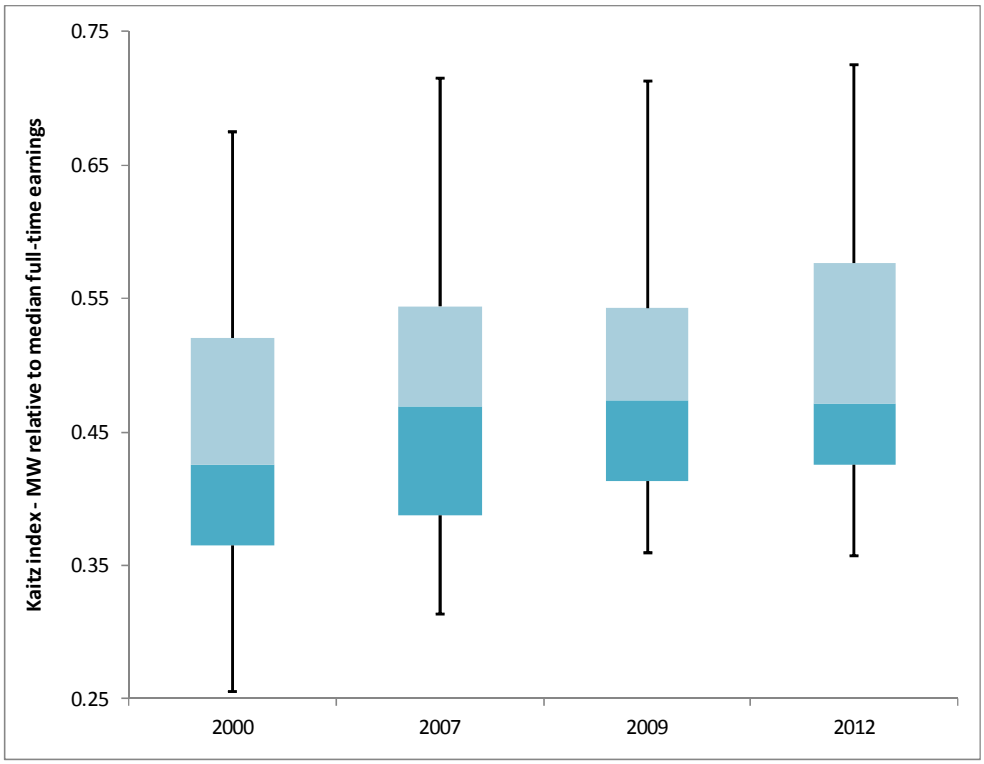
b. Countries with deterioration in either the real or relative MW value (group C)



Note: Selection of countries into each chart follow the pattern identified in table 1.
Source: OECD.StatExtracts.

Putting aside the cross-country variety in trends, the overall picture for the 24 countries is one of a slight rise, not fall, in the relative value of the minimum wage during both the pre- and post-crisis periods (figure 2). While the median value remained steady over the 2007-9 and 2009-12 periods it is significant that the lower quartile value increased, from 0.39 to 0.41 to 0.43, thanks largely to sustained rises in Korea, Japan and Poland. Also, among the upper quartile, significant rises in the Kaitz measure in Slovenia and Portugal raised this threshold for the post-crisis 2009-12 period also.

Figure 2. Box and whiskers charts depicting change in Kaitz index, 24 OECD countries



Note: For each year, the data show the minimum Kaitz measure, the lower quartile (bottom of dark shaded box), the median, upper quartile (top of light shaded box) and maximum Kaitz measure; 22 countries for 2000 (missing data for Slovenia and Israel), 24 for 2007 and 2012.
Source: OECD.StatExtracts.

A key question is whether these positive, stagnant and negative trends in the relative value of minimum wages occurred by design, that is the intended consequence of proactive policy intervention, or by accident, namely the somewhat unintended by-product of wider trends in average earnings. Cross-country evidence supports both possibilities. Among the eight countries that enjoyed a rising Kaitz index during the 2009-2013 period, there is clear evidence for four countries that this outcome was planned either through proactive agreements among social partners, recommendations by independent bodies or unilateral government decision.

In Canada, three of the four largest provinces (Quebec, British Columbia and Alberta) each implemented significant hikes in the minimum wage with the intention of raising living standards, including a two-year deal in British Columbia (2011-12) that ended a decade-long freeze by raising the minimum wage by almost 30%; Ontario, the largest province, is the exception since it only ended its minimum wage freeze of 2010-13 in 2014, too recent for the data reported here. In Slovenia, the remarkable 10 point rise in the Kaitz index was the result in part of its government holding to a three-year deal to raise the minimum wage by 23% over the three-year 2009-12 period. The decision was not welcomed by the IMF. Commenting on the first of three minimum wage rises in 2010, the IMF criticised it as 'unfortunate', arguing it would erode competitiveness and result in job losses.[1] In Hungary, the minimum wage trend is well-known for its erratic nature (Köllő 2009) and, in a repeat of the rapid rise in the early 2000s, the government again increased the minimum wage during

[1] Cited from the summary report available at http://www.imf.org/external/np/ms/2010/061110.htm. Over the three years, the net monthly minimum wage was increased from €460 in 2009 to €562 in 2012 (www.sloveniatimes.com/unions-require-minimum-wages).

the post-crisis period (a six-point rise in the Kaitz 2009-12) with the intention of holding the Kaitz index steady after the rise. However, the policy context is complex in Hungary. The government raised the minimum wage to compensate for a simultaneous abolition of in-work benefits (the earned income tax credit) and the associated introduction of a flat rate income tax. In fact, the 2011 minimum wage rise translated into a small drop in net earnings (Scharle and Szikra 2014: 236). Also, Poland purposefully raised its minimum wage above inflation in 2009, 2012 and 2013, increasing the Kaitz index by five points. Thus, governments acting with or without social partners in these countries appear to have envisioned a role for rising minimum wages as a macro-stabilisation policy and/or wage distribution policy.

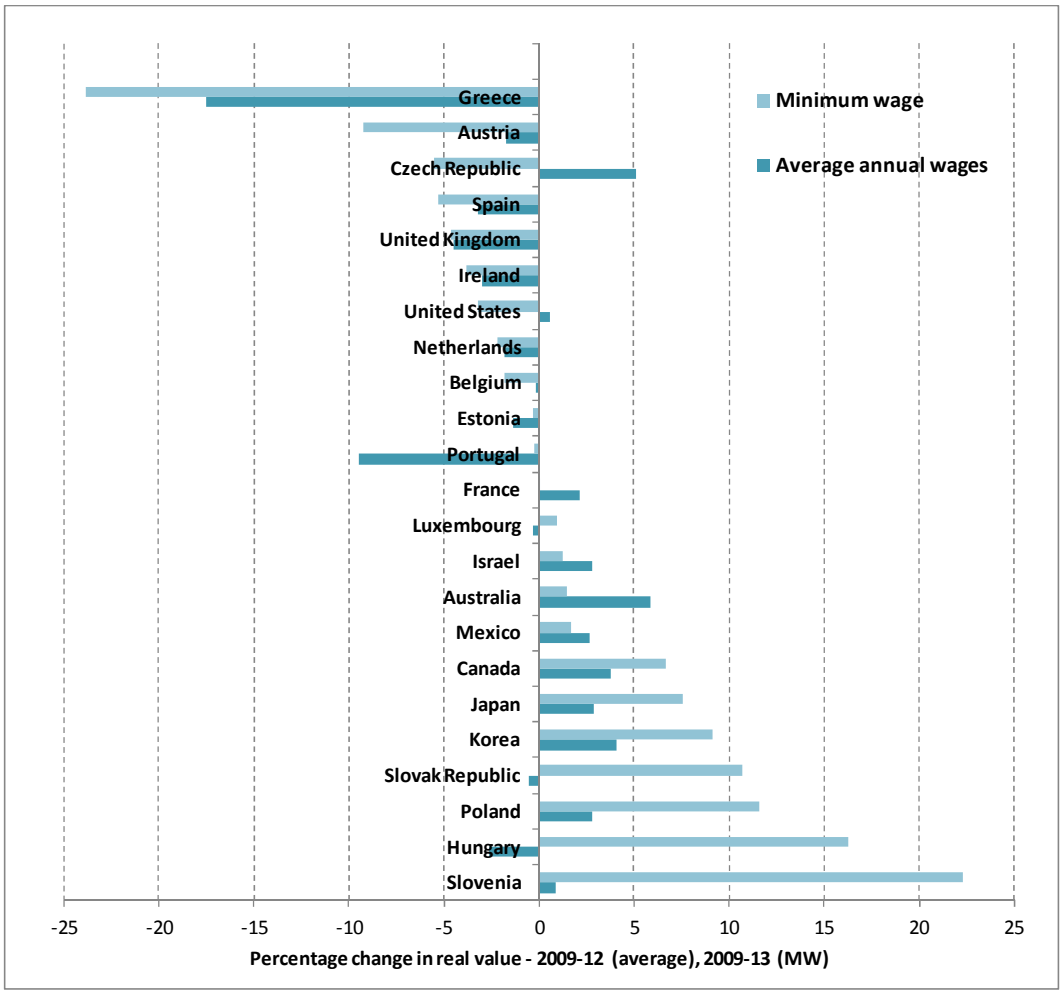
There is also evidence of active intervention to reduce the Kaitz measure. In 2012, Greece imposed a 22% reduction in the minimum wage in 2012 in line with the Troika agreement, including freezing the rate until the end of the Economic Adjustment Programme and the sidestepping of longstanding collective negotiation (Karamessini 2014: 213). In Ireland, the falling Kaitz (a seven-point fall since 2007) is a direct consequence of the policy decision to freeze the minimum wage. The 2010 decision to cut the minimum wage by €1 received a lot of press[2] but was quickly reversed following agreement with the IMF-EU team on the conditions of Ireland's bailout. The case of Portugal is mixed. It initially held fast to a four-year tripartite deal agreed in 2006 and despite the crisis awarded above inflation rises of 5.6% in 2009 and 2010, sweetened with a reduction in employer tax contributions for minimum wage workers (equivalent to 15% of the overall increase[3]). Since 2011, however, the monthly minimum wage has been frozen at €566, although as we now consider, the change in policy has not altered the course of a steadily rising Kaitz index.

The significance for inequality of upward and downwards shifts in the relative value of the minimum wage depends in part on what has happened to real average earnings. Stagnant or falling levels of pay across the labour market in several countries mean that a rising Kaitz may be indicative of growing numbers of workers clustered into low-wage jobs rather than a progressive upwards shift of the wage distribution. Figure 3 compares trends in the real value of the hourly minimum wage and real average annual earnings, drawing again on OECD earnings data for full-time workers. Three patterns are notable. In the four CEE countries that significantly raised the real minimum wage, this occurred against a backdrop of falling or stagnant real average wages, thereby substantially inflating the rise in the Kaitz index and signifying a major compression of wages in the bottom half of the distribution. In a second group of countries, real change in the minimum wage fell behind positive growth in real average earnings – especially in Australia and the Czech Republic, but also France and the US, contributing to a falling Kaitz measure. And in a third group, real minimum wages and average earnings fell concurrently such that the resulting trend in the Kaitz index is arguably less significant than the fact that all wages have fallen in real terms. This is particularly true of Greece, Spain, UK and Ireland where the Kaitz has been flat or falling during 2009-12. For Greece in fact the Kaitz index was rising during 2009-2011 (figure 1b) as a consequence of a faster decline in real average earnings, but the situation reversed in 2012 with the Troika-led 22% minimum wage cut.

Figure 3. Real change in minimum wages (2009-13) and average annual wages (2009-12)

[2] As a key measure in Ireland's Financial and Emergency Measures in the Public Interest Bill (see http://www.eurofound.europa.eu/eiro/2010/12/articles/ie1012029i.htm).

[3] Campos Lima (2010) at http://www.eurofound.europa.eu/eiro/2009/12/articles/pt0912029i.htm.

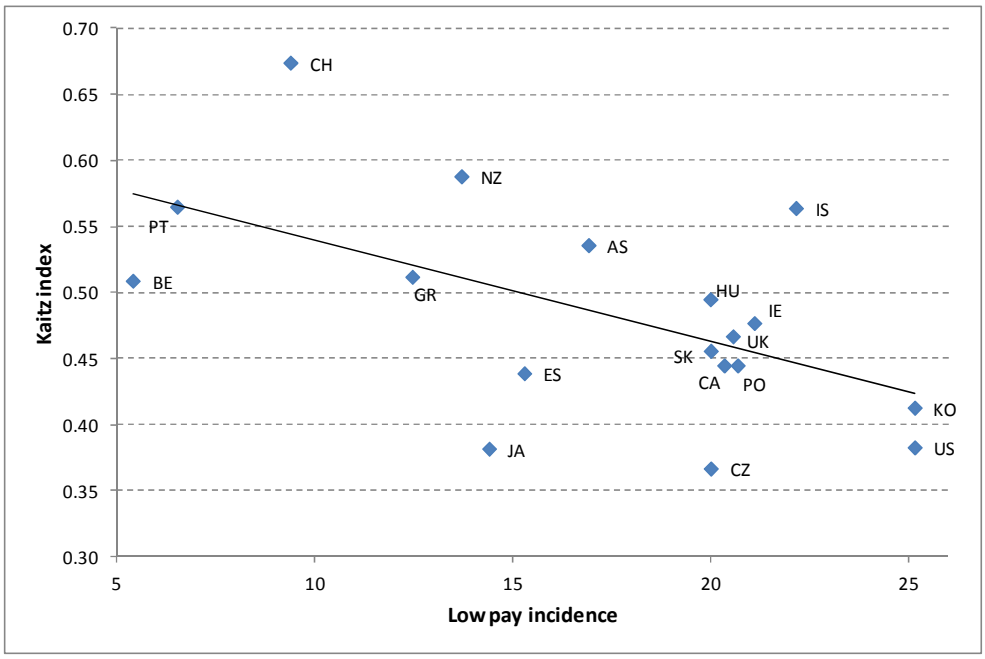


Note: for Mexico average annual earnings refer to 2009-2011; for France minimum wage data refer to 2009-2012.
Source: OECD.StatExtracts.

2. The relationship with measures of low-wage employment

Aside from its role in ridding the labour market of very low, exploitative wages, it is usually assumed the relative value of the minimum wage is negatively associated with a country's share of low-wage employment, especially among women who account for the majority of low-wage workers in all OECD countries. Several studies identify such a relationship drawing on cross-national comparative analysis at a single point in time (eg. Grimshaw and Rubery 2013; Lucifora et al. 2005; Watt 2010). Figure 4 provides an updated illustration of this result drawing on OECD data which defines the incidence of low-wage employment as the share of workers earning less than two thirds of median earnings, restricted to full-time workers only (a major limitation given the high share of low-wage part-timers in several countries). The cross-country comparison for 2011 suggests a moderately strong, negative correlation of around -0.56. Korea and the United States are located at one extreme with high shares of low-wage employment and low relative minimum wages while Portugal, Belgium and Chile can be found at the other extreme. While the general result is confirmed there is nevertheless a notable variation around the trend line. For example, the UK and Hungary have a significantly higher value minimum wage than Spain but also have higher shares of workers in low-wage work, by some five percentage points. Similarly, the United States shares a common low value minimum wage with Japan but the low-wage incidence is very different at 25% and 14%, respectively.

Figure 4. The relationship between the Kaitz index and the incidence of low-wage employment, 2011, male and female full-timers



Source: OECD.StatExtracts.

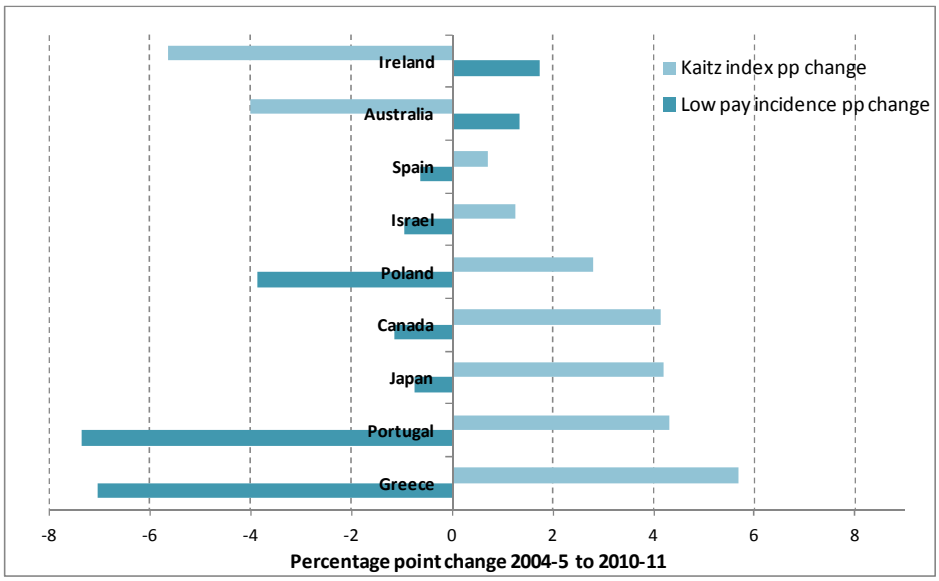
Repeating this test of negative association over time produces even more mixed results and raises questions about the capacity of the single minimum wage policy instrument to decisively combat a country's share of low-wage employment. The two charts in figure 5 split countries according to whether they display a positive or negative/no relationship between trends in the Kaitz index and the incidence of low pay between 2004-5 and 2010-11. The countries split 50-50 between those where reductions (or increases) in the Kaitz correspond inversely with rising (or falling) shares of low-wage work (figure 5a) and those where change in the Kaitz is positively associated with a similar direction of change in low-wage work or there is no apparent relationship (figure 5b).

In the former group, Greece, Portugal and Poland display the strongest negative relationship and highlight the significant risks of the post-2011 Troika policy in Greece and Portugal of downgrading the minimum wage (not reflected in the data shown here); interpretation of data showing a fall in low-wage employment in Greece and Portugal is complicated however given that wages for the bulk of workers have fallen significantly in real terms (see above).

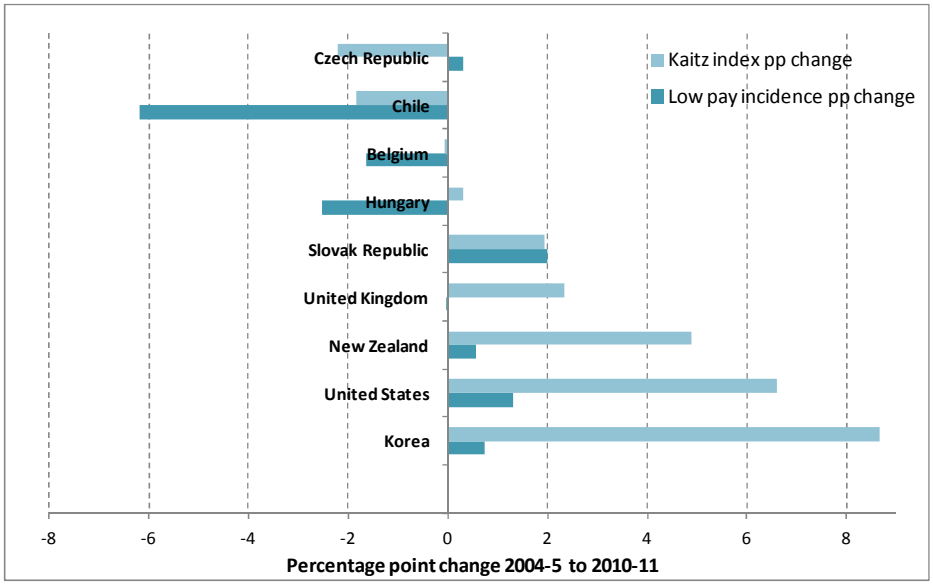
In the second group of countries, trends in the Kaitz index did not generate the anticipated inverse change in the incidence of low-wage employment. Significant rises in the minimum wage in Korea (nine points over the period), the United States (six points) and New Zealand (five points) are in fact associated with a small rise in low-wage employment. In these countries it would appear that the rising wage floor has compressed the lower half of the wage distribution in such a way that a growing share of workers paid below median wages has experienced falling relative pay. Further investigation requires more detailed wage data that can illuminate the changing shape of the wage distribution associated with a rising minimum wage. The next section undertakes such an analysis for the UK.

Figure 5. Change in the Kaitz index and the incidence of low pay, 2004-5 to 2010-11

a) Negative relationship



b) Positive or no relationship



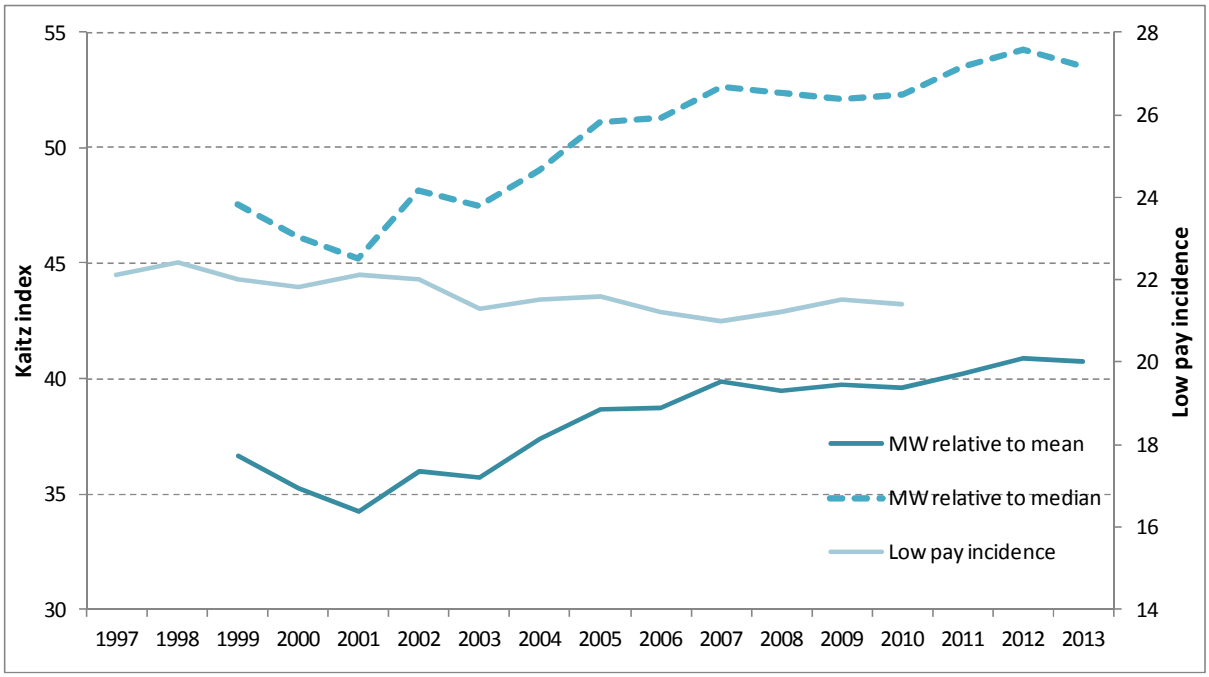
Notes: Two-year averages for 2004-5 and 2010-11 to reduce problems of single year data.

3. The impact of a rising minimum wage on the wage distribution: the case of the UK

In the UK, the introduction of a national minimum wage in 1999 caused a major truncation of the wage distribution, especially so for women. The best estimate, following significant revisions in earlier earnings data, is that around 1.2 million workers - more than 70% women - benefited from higher pay as a direct result of the new legislation (LPC 2001: 18, 2003: 11). Then, from 2003 the minimum wage increased significantly relative to median earnings (for all employees), from 48% to 54% by 2013. In line with our above discussion, the 2003-12 period of a rising minimum wage involves two periods: the 2003-7 increase was the result of purposive intervention by the Low Pay Commission to foster pay equity by raising the minimum wage; and the 2010-13 increase was instead the accidental result of smaller rises in

median and average earnings during the recession and austerity period. On the one hand, the annual upratings have benefited women more than men, by a factor of around two to one[4] and have lifted levels of pay at the wage floor relative to median earnings. On the other hand, however, as figure 6 shows, the rising minimum wage has not had a significant impact on the share of workers in low-wage employment (defined as less than two thirds of earnings for all workers). The incidence of low-wage employment has hovered around 21-22% during the period of a rising Kaitz, whether plotted relative to mean or median earnings.

Figure 6. UK trends in the Kaitz index and incidence of low-wage employment, 1997-2013

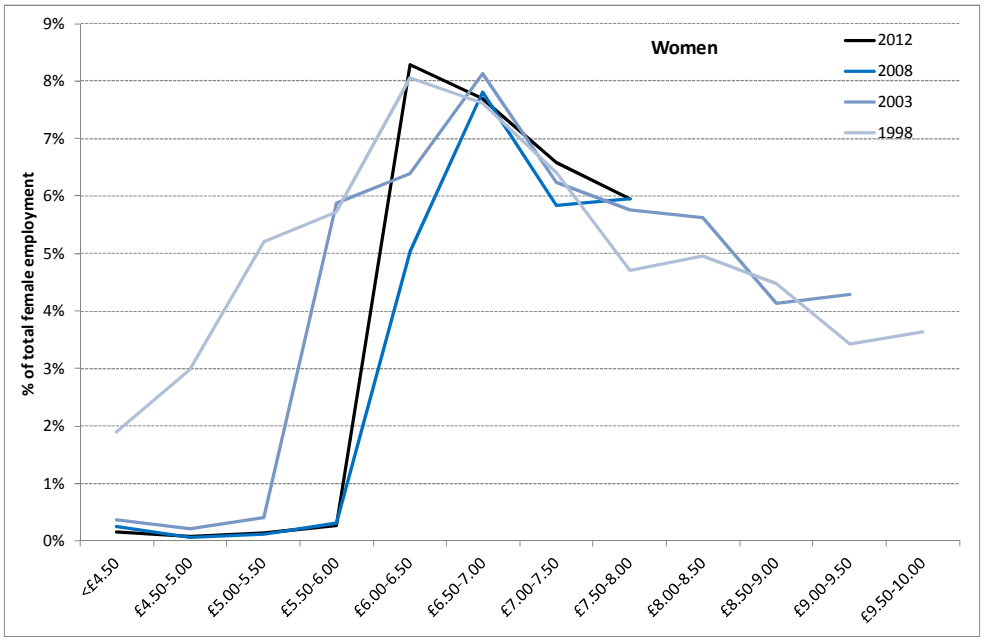


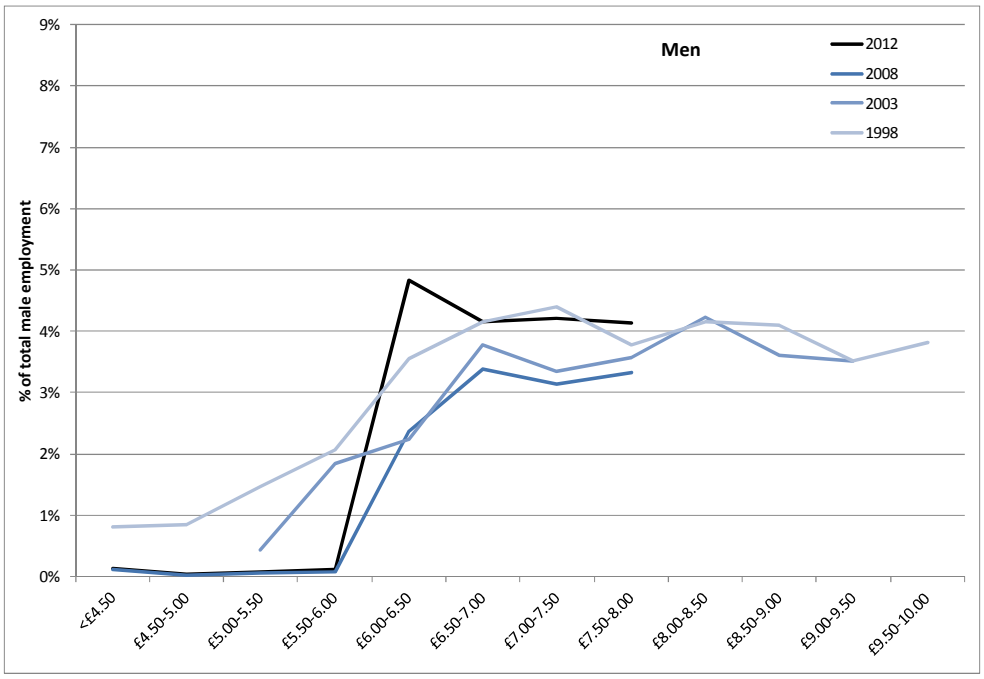
Source: ASHE hourly pay data excluding overtime.

Because the UK minimum wage increased in real value between 2000 and 2008 and then fell, it is instructive to check the changing shape of the real wage distribution among low paid female and male workers clustered at and just above the minimum wage (figure 7). Women's wage distribution is different to men's. Women's wage distribution exhibits a high and steep mountain peak at and just above the minimum wage, while for men the minimum wage sets the level of a plateau that is sustained at above-minimum wage rates. The initial shift from 1998 illustrates the truncation effect following the introduction of the minimum wage among women and men. Then, from 2003 on, the shape of the distribution becomes more compressed at and above the minimum wage – for women, towards a steeper single peak structure, and for men the step up to the plateau increases in gradient and height. It is notable that the gradual changing shape is consistent with both the period of rising real minimum wage (2003-8) and falling real minimum wage (2008-2012). This suggests that the apparent erosion of wage differentials revealed by these simple descriptive statistics has not been halted by the falling away of the minimum wage.

Figure 7. UK trend in the real wage distribution, 1998-2012 (2012 prices, 50pence bands): mountain peak (women) and plateau (men) distributions

[4] In its annual analyses of subsequent upratings, the Low Pay Commission has not been consistent in providing a gender disaggregation, but in those reports that do provide the data the result is that women typically outnumber men among beneficiaries by slightly more than two to one (adults aged 18+).





	1998	2000	2003	2008	2012
Minimum wage (April)	--	£3.60	£4.20	£5.52	£6.08
Minimum wage (2012 prices)	--	£5.14	£5.63	£6.24	£6.08
Median wage (April)	£7.27	£7.80	£8.85	£10.54	£11.21
Median wage (2012 prices)	£10.84	£11.13	£11.85	£11.91	£11.21

Notes: all wages adjusted to 2012 prices using annual estimates of the Retail Price Index ('All items, 12 months % change', ons.gov.uk); own adjustment to 50 pence bands; hourly earnings data exclude overtime.
Source: Annual Survey of Hours and Earnings (ASHE) (ons.gov.uk) 'Distribution of low paid jobs by 10p bands', own compilation.

An alternative method for interrogating the impact of the rising minimum wage using detailed aggregate data is to explore the changing composition of workers paid at incremental differentials above the minimum wage. If large shares of workers are clustered at or only marginally above the minimum wage it is quite likely that this reflects evidence of a 'wage contour' effect, defined by Dunlop (1957) as a wage range for which an 'external key

rate', in this case the statutory minimum wage, is as influential (if not more so) as internal organisational factors and/or human capital factors in determining the wage. Studies in the United States find evidence of 'minimum wage contours' in several sectors, suggesting wage structures for many occupational groups are more closely tied to minimum wage trends than other factors such as changing skills and work experience (Levin-Waldman 2002; Rodgers et al. 2004).

Table 2 presents UK data for three pay bands, or contours, above the minimum wage for the period 1999-2012. The first point is that the post-2003 period of a rising minimum wage has been consistent with a growing concentration of men and women in the three low wage contours shown. The second point is that minimum wage contours are far more strongly embedded for women than for men: in 2012, 15% of women and 8% of men aged 21 and over were paid at the first tier of very low wages (MW plus 10%, equivalent to a gross hourly wage of £6.08-£6.69); and at the second tier (MW plus 20%), we find almost a quarter of all women employed (23%) and 14% of men. The third point is that there has been a diminishing of the gender divide since 2003: for example, while in 2003 women faced nearly three times the likelihood as men of being paid a wage in the second tier (MW plus 20%), by 2012 this had reduced to less than twice the risk. Nevertheless, in terms of numbers of male and female workers, both groups witnessed a rise of approximately 1 million (1.01 million male workers and 0.98 million female workers) paid in the range of the minimum wage plus 20% over this 9-year period.[5]

Table 2. Minimum wage contour trends in the UK: the share of adult female employees and male employees in pay bands above the minimum wage, 1999-2012

	1999	2003	2008	2012
First tier (MW + 10%)				
Women	11.9%	9.5%	12.7%	15.0%
Men	4.1%	3.2%	5.7%	8.4%
Second tier (MW + 20%)				
Women	20.7%	16.7%	20.4%	23.2%
Men	7.6%	6.0%	9.7%	13.6%
Third tier (MW + 30%)				
Women	27.7%	24.9%	26.4%	30.1%
Men	11.3%	10.0%	13.2%	18.4%
Minimum wage as % of median pay	47.6%	47.5%	52.4%	54.2%
Median pay as % of minimum wage	MW+110%	MW+111%	MW+91%	MW+84%
% women paid below median pay	61%	60%	58%	57%
% men paid below median pay	39%	40%	42%	43%

Notes: the minimum wage level in April for each year was £3.60 (1999), £4.20 (2003), £5.52 (2008) and £6.08 (2012); data referring to the three tiers refer to adults aged 22+ (1999-2008) and 21+ (2012) (Source a); median pay refers to all employees on adult rates (male, female, full-time, part-time) and was £7.57 (1999), £8.85 (2003), £10.54 (2008) and £11.21 (2012) (gross hourly, overtime excluded, nominal, Source b).
Source: ASHE earnings data (ons.gov.uk) – a) 'Distribution of low paid jobs by 10p bands' and b) 'Annual Survey of Hours and Earnings: Table 1 All employees'.

4. The mediating role of industrial relations

The case of the UK highlights the wider risks of using the minimum wage as a single policy instrument to address low pay. In the absence of a complementary institutional context, involving tripartite consideration of the effects of minimum wage rises, a strong and coordinated trade union role in collective bargaining in low-wage sectors and a proactive

[5] During this 2003-2012 period the total male workforce increased from 11.44 million to 12.46 million and the total female workforce from 11.14 million to 12.25 million (as recorded in the ASHE earnings database).

egalitarian union approach towards wage bargaining, there is a risk that a rising wage floor generates undesirable wage compression among a growing share of low and middle earning workers. The problem is that the economic crisis has in many countries weakened the role of unions both in wage policy discussions and in collective bargaining negotiations, thereby diminishing a necessary institutional lever for ensuring positive ripple effects of a minimum wage rise.

In several countries, minimum wages have for some years before the crisis frequently overtaken base rates negotiated in collective wage agreements, causing a narrowing of wage differentials among low-wage workers as employers and unions seek to compensate for minimum wage rises. These countries, most notably France and Ireland, are defined as having a 'direct interaction' between the institutions of minimum wage policy and collective bargaining (Grimshaw and Bosch 2013; figure 8). Detailed study of sector collective agreements show that unions and employers often struggle to catch up with minimum wage rises and wage differentials are squeezed (see, for example, Banyuls et al. 2013 for the retail sector in four European countries and Gautié 2009 for France). Nevertheless, with unions facing increasing difficulties to secure decent wage settlements, unions may still welcome minimum wage rises as the best means of shoring up the wage floor for lowest paid workers.

In other countries, minimum wage rises operate in a relatively isolated fashion on the wage structure because collective bargaining is weak and HR practices of rewarding skill, job responsibility and work experience, especially in low-wage sectors, are not firmly established. The UK, the United States and Hungary would fit this type of characterisation. The UK enjoys a well-functioning minimum wage policy thanks to the widely trusted role of its tripartite Low Pay Commission. The problem is that there is very limited opportunity for unions and employers to jointly build on minimum wage rises through forging complementary collective wage agreements; coverage is only around 17% in the private sector and far lower in key low-wage sectors such as hospitality and retail where union density is estimated at around 5% and 12%, respectively (Barratt 2009). The result is the kind of wage compression into minimum wage contours illustrated above. Moreover, austerity policies of reduced real public spending and public sector pay mean that a similar compression is occurring for the first time in areas of the public sector where collective bargaining is far stronger (around 70%). The minimum wage rise in 2013 overtook the base rate in the local government collective agreement, which covers more than 1 million workers, so that the base rate had to be eliminated in order for wages to comply with the legislation. In this context there is currently a debate about whether or not the remit of the Low Pay Commission ought to be widened to encompass a specific role for reducing the incidence of low-wage work (Plunkett and Hurrell 2013).

Other countries where collective bargaining coverage had for years acted as a type of functional equivalent for minimum wages are facing new challenges exacerbated by the crisis and austerity policies. Greece, Spain and Portugal, where collective bargaining over wages has traditionally covered the bulk of workers, are facing an erosion of unions' influence on wages through collective bargaining as a result of government policy to weaken social dialogue and collective bargaining practices. In part, these policies follow structural reform recommendations of the Troika. In Greece, the government suspended the extension of sectoral collective agreements to non-signatory firms during 2012-13, encouraged decentralised wage agreements and suspended collective agreement clauses on seniority premiums, all with the explicit intention of easing downward adjustment of wages as part of its Economic Adjustment Programme (Karamessini 2014). In this context, wages for many

workers are likely to be pulled down to the new lower level of the national minimum wage (following the 22% reduction in 2012), resulting in predictions that a majority of workers will in the near future earn at or only slightly above the national minimum wage (Kapsalis 2012, cited in Karamessini 2014: 214). In Spain also, the aim of recent reforms is to weaken the wage bargaining power of unions relative to employers. With many parallels to the Greek reforms, the Spanish government has legislated to extend employers' ability to escape the legal provisions of collective agreements, to establish the pre-eminence of firm-level collective agreements and strengthen incentives for employers to let agreements expire leading to de factor opt outs of firms from collective bargaining (Muñoz de Bustillo and Antón 2014). Prior to the crisis, Spain was known as a country where minimum wage rises in fact had very limited effect on the wage structure since collective agreements had strong coverage in low-wage sectors and set base wage rates significantly higher than the statutory minimum – referred to as an institutional type of 'distant coexistence' (Grimshaw and Bosch 2013). It now seems that this will change significantly such that low-wage workers, as in Greece, will increasingly depend on government decisions regarding minimum wage rises.

Germany provides something of a positive test case in researching the pay equity effects of a national minimum wage with relatively well functioning institutions of collective bargaining. Its introduction in 2015 at the rate of €8.50 covering both east and west Germany will present a challenge for social partners in those sectors where there is already a legally binding minimum rate set at a lower level – such as the new minimum for the meat industry at €8, commercial cleaning (€7 in east Germany, €8 in west Germany) and temporary employment agencies (€7.50 in eastern Germany) (2013 rates[6]). There is past evidence of successful bottom-weighted pay bargaining strategies in some sectors in order to raise pay in east Germany faster than in the west (Weinkopf et al. 2013 for the cleaning sector) but there is also a risk that employers erode pay differentials by reclassifying skilled jobs as semi-skilled, enabling the payment of lower rates of pay while apparently conforming with the collective agreement.

5. Discussion

-to complete

[6] Sourced from http://www.wageindicator.org/main/salary/minimum-wage/germany.