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1. Introduction

The purpose of this paper is to inform discussions at the Peer Review on the Minimum Wage hosted by the Department for Business, Innovation and Skills (BIS)/Low Pay Commission (LPC), United Kingdom. It complements the host country discussion paper on the UK National Minimum Wage by providing an EU-level overview and discussion of systems, practices and debates across the European Union. The paper is structured as follows:

- Section 2 gives background to the development of minimum wages in EU countries, and explores developments in the EU, particularly in relation to current debates about minimum wages emerging in the European Semester;
- Section 3 explores national minimum wages in Europe today, providing an overview of the different systems in place, coverage and trends.
- Section 4 provides analysis of research on the impact of national minimum wages on employment, competitiveness, pay distribution, pay gaps.
- Section 5 draws out some conclusions and lessons from different experiences of national minimum wage regimes, and considers the potential for setting EU level standards.

2. Background

Wages function in the economy both as a cost of production (that affects the demand for goods and services via prices, the competitiveness of businesses, and demand for labour); and as household income (that provides a standard of living and promotes consumer demand). Minimum wages provide a lower bound for wage distribution and amounts normally refer to gross earnings before taxes or other statutory deductions, including the base salary and premiums and bonuses applying to standard work hours (not including payments in kind) (OECD, 2003). Policies towards minimum wages have implications at different levels as discussed in Table 1 below. Ever since labour became organised in the 19th century, trade unions have sought to establish minimum pay in their constituencies, and minimum wages were often established through collective bargaining (including at the sector level), and could apply to union members only. Subsequently, many European governments have established national minimum wages on a statutory basis or used legislation to reinforce the coverage of collectively agreed wages (see section 3 for a discussion of the different national systems which are currently in place).

The recent Eurofound (2014) report describes minimum wages as *"…a cornerstone of the 'European Social Model'"* (p. 5), stressing their importance as a key aspect of social policy across countries[1]. Establishing a minimum level of pay can help in addressing wage inequalities and tackling in-work poverty issues, and can incentivise work for people marginalised in the labour market, thereby raising the labour supply.

The European Commission has been promoting decent and sustainable wages to help to address social imbalances, and minimum wages as a part of securing decent pay, as well as boosting demand at the margins. Wages (and their distribution) are therefore a key aspect of the Europe 2020 employment and social cohesion targets. The Europe 2020 document did not contain explicit references to wage policies (as the

[1] Nb. The influence on Member States is through recommendation and agreement rather than directive. Eurofound (2014) notes that *"The Treaty on the Functioning of the European Union explicitly excludes pay from the set of fields in which the EU has competences to intervene and explicitly recognises the autonomy of the social partners in pay bargaining"* (p. 1)

EU has no formal power of initiative in this area), but the Strategy was based on a new system of governance whereby the EU and euro zone coordinate budgetary and economic policies (the European Semester), with a view to secure discussion on policy priorities at EU level (European Commission, 2011c).

Table 1: The role that wages play at different levels

Individual level	Source of income and standard of living Incentive to economic activity Mechanism for guiding educational and occupation choices
Company level	Cost of production affecting labour demand and competitiveness Potential motivator for employees
Economy	Way of aligning demand and supply of labour Source of aggregate demand/consumption Mechanism for global competiveness
Society	Mechanism for tackling wage inequalities and wage gaps Way to address in-work poverty issues and promote economic inclusion

Other key labour market trends which enhance the potential relevance of minimum wages as a form of protection for workers include:

- The increase in the movement of labour across the EU associated with enlargement. Migrant workers are perceived to accept relatively low wages (Vaughan-Whitehead, 2010).
- The liberalisation of services within the EU, as well as the wider globalisation of production and associated concerns about 'social dumping'.
- The growth of new forms of employment including part-time work and temporary jobs and more recently other 'atypical' contracts (e.g. zero hour contracts, etc.). Workers in these categories are amongst the most poorly paid.
- The increased attention in several Member States to the phenomenon of in-work poverty.

The cases of Ireland and Poland have illustrated how the minimum wage can be a tool to address migration (Vaughan-Whitehead, 2010). Minimum wages help to prevent 'social dumping' (i.e. protecting all workers from excessively low rates of pay). Sending countries can potentially limit out-migration through minimum wage increases (assuming there is fiscal space to do so).

Economic and Monetary Union (the EMU) led to increased emphasis on the role of wages as a policy instrument (Eurofound, 2000). The current economic crisis has heightened concerns about the competitiveness of the Member States' economies. Debates about the role of national minimum wages have come under particular scrutiny in recent years, particularly in relation to the economic aspects of minimum wage policies. Agreement on a minimum wage level has the potential to boost overall economic demand through rising incomes, however there is an obvious cost implication which could potentially negatively impact on competiveness and the demand for labour unless the cost of the rise in pay is absorbed (for example through a productivity rise or employers accepting lower profits (see section 4 on evidence on the impact of national minimum wages). Reductions in wages are brought about through internal devaluation, and there has been a recent focus on bringing down their value as a mechanism to boost competiveness and reinforce austerity measures including reductions in public finances. Busch et al (2013) highlighted that countries receiving support from the Commission and Central Bank have signed agreements which included reductions in minimum wage levels (as well as reducing public pay and weakening centralised collective bargaining systems).

Although pay is outside the direct remit of the European institutions, wage regimes have been affected by the recent series developments which have committed EU Member States both to wage restraint and decentralisation of systems of collective bargaining. The key developments include:

- EU economic governance measures: the Six-pack of measures strengthening economic and fiscal surveillance; and the Euro Plus Pact[2] aimed at fostering competitiveness, enhancing the stability of public finances, reinforcing fiscal stability and fostering employment – for instance through flexicurity measures, labour tax reforms and investment in lifelong learning. The Euro Plus Pact adopted in March 2011 applies to a subset of EU Member States and was signed by all Euro-zone countries (at the time) as well as Bulgaria, Denmark, Latvia, Lithuania, Poland and Romania (Belgium, Cyprus, made commitments and have been receiving recommendations regarding their wage setting systems since 2011[3], as did other Member States although not related to the wage setting system (Italy, Spain, Luxembourg and France). The reform of the Stability and Growth Pact, through a set of legislative initiatives adopted in December 2011 (known as the Six-pack), concerned the whole EU. The Six-pack includes six directives and regulations on budget deficits, spending levels, and tax levels aimed at safeguarding financial stability through effective preventive surveillance.
- Commission's recommendations resulting from the European Semester of economic policy coordination. The Commission stresses the need for: corrections to ensure that wages support competitiveness and develop in line with productivity growth; review of wage setting systems in consultation with social partners; and reform the wage-indexation system. Annex 1 sets out the recommendations by country for the three rounds to 2013/14. In 2013/14 for France, the recommendation was to 'make sure that the level of the minimum wage supports job creation and competitiveness'. For Germany, the recommendation was that wage growth supports domestic demand.

The recent developments have been described as bringing about a 'new system of economic governance (Schulten and Muller, 2013). Moves towards enhanced policy co-ordination have been paralleled by a change in attitude towards collective bargaining, described as a paradigm shift in the EU's approach. It is argued that as a result of these measures, autonomous collective bargaining has, in a number of countries, *de facto* been undermined by direct intervention at a political level by the EU into national bargaining arrangements. In 2013 the Commission attempted to establish a tripartite dialogue on wage developments (Eurofound, 2014). In response to this, concerns have been raised as a result by the social partners, who call for continued respect of free autonomous collective bargaining including on wages.

3. National Minimum Wages in Europe today

3.1 Overview of national minimum wage systems

Across the EU, all Member States have mechanisms in place to specify minimum wages and most Member States have established a national minimum wage. Minimum wages are either set in statute or through a national intersectoral agreement. In some countries – Germany included (although this is set to change from January 2015) – the statutory minimum wage currently only applies to specific sectors[4]. The recent

[2] Competitiveness is one of the four objectives of the Pact, which emphasises that wages should evolve in line with productivity to stabilize unit labour costs.

[3] Malta also receives recommendations although it is not a signatory.

[4] In Germany there are also variations between eastern and west Germany. A coalition agreement between the CDU and SPD will lead to a statutory minimum wage being introduced

Eurofound (2014) report follows Schulten (2012a) in categorising wage bargaining regimes according to bargaining level and degree of coordination and explains the different systems of minimum wage setting as set out in Table 2.

The narrative on how minimum wage systems have evolved in the Member States stresses the importance of the collective bargaining framework in influencing whether the approach was for governments to establish a national minimum wage: i.e. where trade unions were weaker a national statutory approach became more likely (Eurofound 2014). In the context of the trend towards reduced trade union membership and collective bargaining coverage in the majority of countries, trade unions have pushed for the introduction of statutory minimum wages as a way of influencing wage developments.

Table 2: Overview of minimum wage systems for full-time employees across the EU[5]

	Coordination Type		Coverage	
	Statutory regulation	Collective agreement	National	Sectoral/Occupational
Austria		X	X[6]	
Belgium		X	X	
Bulgaria		X	X	
Czech Republic	X		X	
Croatia	X		X	
Cyprus	X			X
Denmark		X		X
Estonia		X	X	
Finland		X		X
France	X		X	
Germany (to 2015)		X		X
Greece		X	X	
Hungary	X		X	
Ireland	X		X	
Italy		X		X
Lithuania	X		X	
Luxembourg	X		X	
Latvia	X		X	
Malta	X		X	
Netherlands	X		X	
Poland		X	X	
Portugal	X		X	
Romania	X		X	
Slovenia	X		X	
Slovakia		X	X	
Spain	X		X	
Sweden		X		X
UK	X		X	

Source: Adapted from Schulten, 2012a in Eurofound, 2014

Mechanisms for changing national minimum wages vary and range from systems of regular updates in line with key economic and overall wage indicators to systems

from 1st January 2015 at a rate of 8.50 euro (above the existing minimum rate in some sectors).

[5] The minimum wage applies tp part-time employees in Belgium, Bulgaria, Czech Republic, Estonia, Ireland, Spain, France, Lithuania, Luxembourg, Hungary, the Netherlands, Poland, Portugal, Romania, Slovenia, Slovakia, and UK.

[6] Austria set a national minimum wage from 2009 (Vaughan-Whitehead, 2010).

based on the recommendations of expert panels (e.g. in the UK). The existence of statutory or national intersectoral minimum wages does not rule out the possibility of higher national minimum wages additionally being negotiated at branch/sector and enterprise levels through collective agreement. Such sectoral minimum wages are sometimes significantly higher than the NMW. Furthermore, collectively agreed wages at the sectoral level can also contain other elements of pay and benefits (in-kind benefits, overtime pay agreements etc) which could influence the final pay outcome. The scope of collective agreements tends to be highly country-specific) (Eurofound, 2014).

Most Member States have an approach of establishing differential rates of minimum wages for different groups (especially young people), due to the concern that a minimum wage set above the equilibrium level would make some low-paid workers too costly for employers to recruit, thus increasing unemployment. From this perspective the minimum wage policy might damage the prospects of those that it intends to help. In countries with statutory national minimum wages, provisions establishing different rates for specific groups, or even exclusions, are fairly common. Differential rates for young workers (and/or apprentices) are in place in all countries with national systems except Portugal and Spain.

Other groups with differential rates include disabled workers (France, Portugal), unskilled workers (Luxembourg) and unmarried workers (Greece) (Eurofound, 2014). Exemptions exist for public-service employees in certain countries, (Belgium and France) (Eurofound, 2007).

3.2 Coverage

As shown in Table 2, the majority of EU Member States have national statutory minimum wages (especially more recently following the inclusion of the new Member States after EU enlargement which brought in countries of central and eastern Europe which had implemented statutory minimum wages in the 1990s). National statutory minimum wages were established in the UK and Ireland within the last twenty years and a national statutory minimum wage will come into force in Germany in January 2015 (Eurofound, 2013). The trend therefore has been to reduce the diversity in minimum wage mechanisms across Europe, although important differences remain. In countries without a national minimum wage, such as Cyprus, Germany (currently), Denmark, Finland and Italy, different minimum wage levels apply in different sectors and/or occupations that do not necessarily cover the whole working population.

The number of people covered by the minimum wage is relatively high in most cases (for example it is estimated that 1.2 million workers were within the threshold of minimum pay legislation introduced in UK in 1999 (Low Pay Commission, 2013), and 5 million were covered by statutory minimum wages in the EU enlargement accession countries (Vaughan-Whitehead, 2010). The most important difference in the coverage of minimum wages is associated with the differences between statutory and collectively agreed models: in the latter the minimum applies only to workers covered by collective agreements (unless such agreements are made universally applicable). At the same time, in most cases this coverage may be very high, or even universal as in Austria where it is obligatory to be a member of an employer organisation. In other cases the government has intervened to increase the level of protection by different means including extending the collective agreement in situations where at least half of an industry is covered (Finland). Modelling of those most affected by low pay undertaken by Eurofound suggests that young employees, employees with only short work experience and, to a lesser extent, low qualified workers, are less likely to be covered by minimum wage protection in countries without statutory minimum wages (Eurofound, 2014). Women account for the majority of low-wage workers.

In order to compare differences between countries, Eurofound (2014) looked at the proportion of workers who are earning below the prevalent minimum wage level in each country, highlighting that relatively few (less than 5%) in most countries with minimum wage systems are below the minimum wage suggesting that compliance with minimum wage provision is high. In France, Ireland, Lithuania and the UK a statutory national minimum wage is accompanied by a significantly higher proportion of workers below the national minimum: non-compliance may be underlying this as well as measurement problems associated with low-pay based on the standard minimum wage in cases where there is the possibility of lower minimum wages for specific groups, for example young workers. There are differences across EU countries in the share of low-paid employment. Countries with a higher proportion of low paid workers, tend to be those with non-statutory or non-national minimum wages (Austria, Cyprus, Denmark, Germany and Italy). Lack of national coverage is the key issue here and possibly the existence of lower specific minimum wages in some sectors/occupations. There is no clear picture in relation to the association between the relative value of the minimum wage and the prevalence of low-pay employment in Member States economies as discussed further below (Grimshaw et al, 2013).

3.3 Level of minimum wages

The differences in the nominal level of agreed nominal minimum wage rates are large, reflecting national prices differences and associates variations in living standards (Table 3), as are the differences between Member States in the effective value of minimum wages measured in relation to the average national wage (as discussed below). As a general pattern, the Western Member States tend to have relatively high nominal minimum wages in comparison with other countries, whilst the lowest rates are in the central and eastern European countries, and southern countries appear it the middle band.

Table 3: Statutory national minimum wages (October 2013)

Wage floor	7-8 euros per hour	2-7 euros per hour	Under 2 euros per hour
Member States	Luxembourg (11.10) France (9.43) Belgium (9.10) Netherlands (9.07) Ireland (8.5) UK (7.78)	Slovenia (4.53) Malta (4.06) Spain (3.91) Greece (3.35) Portugal (2.92) Croatia (2.29) Poland (2.21)	Czech Republic (2.01) Hungary (1.97) Slovakia (1.94) Estonia (1.90) Latvia (1.71) Lithuania (1.76) Romania (1.06) Bulgaria (0.95)

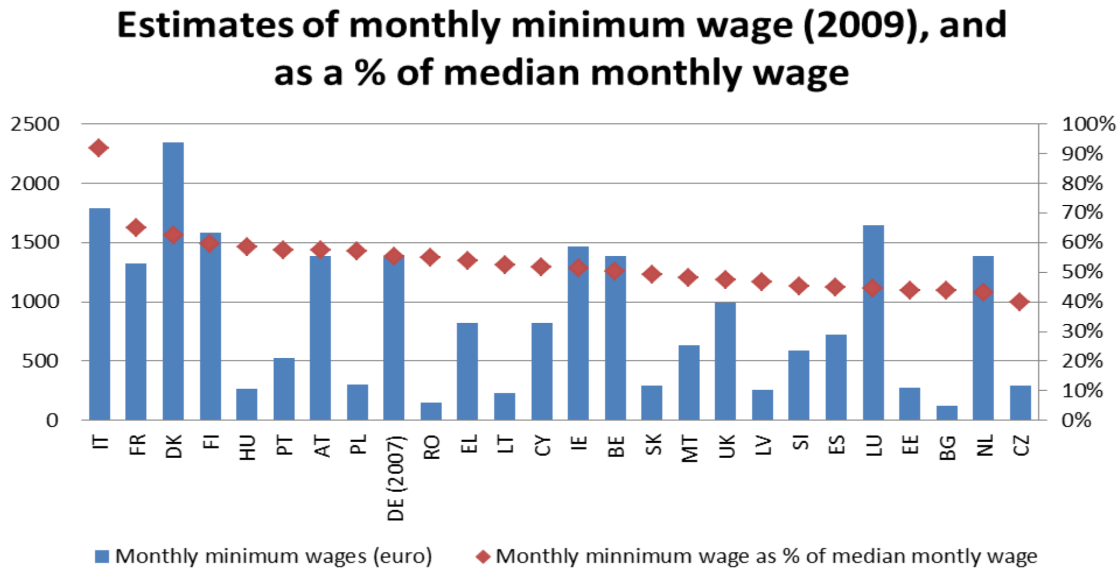
Source: WSI Minimum Wage Database 2012, http://www.boeckler.de/pdf/ta_mwdb_v1013.pdf

The relative value of minimum wages compared to average earnings varies across the Member States, and Figure 1 provides an overview of the absolute and relative values for countries, using estimates for 2009. Although this data is somewhat outdated it is included here because it provides useful estimates for all the Member States, including those without a single statutory minimum wage, in a format that allows for comparisons (Eurostat data for countries with a statutory minimum wage has been combined with estimates for minimum wages in other countries drawing on the work of Kampelmann, Garnero and Rycx (2013), reported in Eurofound (2014))[7]. This analysis appears to suggest that the relative value of minimum wages are generally higher in countries where minimum wages are collectively agreed compared to countries with a statutory national minimum wage (based on the estimates taking the

[7] Effective levels of minimum wages in countries without national agreement are not known. Kampelmann, Garnero and Rycx (2013) used data from sectoral agreed minimum wages to estimate the average minimum level applying to those covered by the sectoral agreements.

average across sectoral agreements). However, in these cases as noted above they do not apply to all workers.

Figure 1[8]



No data for Croatia and Sweden

Sources: Eurostat; GKR estimates for countries with non-statutory minimum wage (AT, CY, DE, DK, FI, IT); EU-SILC, 2010. Adapted from Eurofound (2014)

In most cases the relative value of the minimum wage ranges between 40-60% of median wages. Most are below the poverty threshold (defined as two-thirds of the median wage) identified by Eurostat on the basis of an official subsistence minimum, and countries have therefore been criticised for inadequately securing workers right to fair pay. The low relative value of minimum wages has meant that a large low-pay sector has developed in many countries despite a national minimum wage (Schulten, 2012b).

The possibility of setting common criteria for minimum wage policy (such as a common threshold of 60% of the national median) has been discussed. The impact of introducing such criteria would vary considerably across countries (Eurofound, 2014). Countries without any national minimum wage provisions would probably find it hardest to implement a threshold since it implies a high degree of coordination with the social partners nationally, or changing the system (i.e. establishing a statutory minimum wage underlying the collectively agreed wages). The number of workers who would be affected also varies across countries: most affected workers would be in Baltic countries, Ireland, Poland, Romania and the UK. The least impact would be found in Belgium, France, the Nordic countries, Portugal and Slovakia[9]. Countries with collectively agreed minimum wages tend to have proportionally fewer low paid workers and the impact would be smaller than in countries with statutory provisions (Eurofound, 2014). Women and young workers would benefit because they are more prevalent in the lowest paid jobs. Low paid workers in personal services sectors and in

[8] It should be noted that using the average of minimum wages from secoral agreements tends to overstate the value of minimum wages in those countries where sectoral agreements apply to minimum wages.

[9] According to the EU-SILC, in most countries the proportion of workers below the threshold is between 10% and 15%, with several countries around or above 20% (the Baltic states, the UK, Ireland, and Germany) (Eurofound, 2014).

small companies are also estimated to have the potential to benefit from increases in minimum wages relative to the median.

3.4 Trends

In terms of the trends in the effective value of minimum wages, data from the OECD earnings database shows diverging trends in recent years in terms of the real value of minimum wages in different countries. Overall the trend has been for an increase in the relative value of minimum wages since 2000 (compared to the median wage for full-time employees). A key underlying component of this was rather large increases in the relative value of the minimum wage in Slovenia and Portugal. The share of the minimum wage relative to the average wage increased in 14 countries with a statutory minimum between 1995-2008 (Vaughan-Whitehead, 2010).

Interest in the minimum wage as a policy instrument has been heightened by the global economic crisis, although there are differences in the reactions of Member States. In some countries there were proactive labour market interventions and agreements by the social partners to drive up the minimum wage as a way of helping to maintain the living standards of hard-hit workers (as well as shoring up domestic demand). For example the Slovenian social partners agreed to increase the minimum wage after 2009 (as in Belgium, Portugal, Spain and Poland, and to some extent in Hungary[10]). In other countries, a policy of wage restraint was adopted to reduce the cost-burden on employers (for example, in Ireland, Bulgaria, Estonia, Lithuania, and Greece) (Vaughan-Whitehead, 2010). The policy objectives in place at government level at any given time have been highlighted as a key aspect of changes observed in the value of minimum wages. There is a concern that tax and social policy goals may distort complementarities between minimum wage policy and collective bargaining. The experience of Hungary has been highlighted, where a hike in the minimum wage in 2009 proved unsustainable (Grimshaw et al, 2013).

In terms of the wage share[11], the real value is declining in most Member States (except in the Finland and UK, where the wage share is growing). The decline of the wage share was equally spread across all types of bargaining regimes (Eurofound, 2014). In many countries minimum wages have a 'signalling effect' for general wage policy developments, with a strong underlying tendency towards deflation. Some commentators fear that restrictive minimum wage policies, coupled with austerity measures, point to the entrenchment of stagnation and reduced scope for expanding domestic demand (Schulten, 2012b).

4. Impact of minimum wages

4.1 Employment impacts

Key issues on the *labour demand* side include the effect of a minimum wage on labour costs although the implications of minimum wages on employment are disputed in economic theory (Eurofound, 2014). From the perspective of neoclassical market-driven models, minimum wages are assumed to have a negative effect on employment for those with a productivity level below the minimum wage. In Keynesian models the expected impact depends on the implications for consumer demand and prices, and could increase demand and therefore employment under certain conditions especially as low paid workers have a high propensity to consume (Herr and Kazandziska, 2011). From a wage-efficiency model perspective, the

[10] In Hungary the decision was taken to increase the minimum wage but the earned income tax credit was ended in this period however, and a flat rate income tax introduced, resulting in a decline in net earnings (Scharle and Szikra, 2014).
[11] Real unit labour costs

productivity of workers will be positively affected by an increase in minimum wages which could also lead to more employment (Georgiadis, 2012).

In terms of empirical studies of the effects of minimum wages in practice, the impact of a minimum wage in overall labour costs is on the lower paid end of the labour market and research tends to support the view that the impact is rather small. A series of recent studies have strengthened the view that minimum wages have only a small negative effect on employment, not usually found to be statistically significant (Card and Krueger, 1994; 2000, Allegretto et al, 2011, Dolado et al, 1996; Vaughan-Whitehead, 2010). Several empirical studies on the employment effects of minimum wages have focused on young people, because this group is generally considered to be most affected by minimum wages.

The conclusions of such studies suggest that the negative employment effects of minimum wages can be minimised where minimum wages are set at an appropriate level and there is a degree of differentiation as appropriate to different worker groups (for example lower minimums for young workers). Moreover, it seems clear that there are adjustment channels which can be brought to bear if necessary to maintain competiveness and profitability in the face of minimum wages which allow employment to be maintained: for example, in the form of efficiency/productivity gains, passing on costs in the form of small price increases, acceptance of reduced profits, cost reductions due to reduced labour turnover, reductions in the overall wage bill due to wage compression (lowering of wages of higher earners), or cutting labour-related in-kind benefits to reduce costs (Schmitt, 2013).

Minimum wages are also a mechanism on the *labour supply* side (including in the context of EU level migration as discussed above). Key issues on the labour supply side include the extent to which the minimum wage is high enough to provide an adequate income (recognising that minimum wage policies can be supported by offering in-work benefits), and the gap between unemployment and other social assistance measures.

4.2 Economic impact

In relation to the economic impact of minimum wages, attention is focused on the potential distortionary effects, especially the concern for pay to reflect cost of living instead of labour demand/supply factors. Moreover, Eurofound (2014) note that collectively agreed pay does not precisely follow fluctuations in output, and can act as an 'insurance function' for employers since in many systems, pay increases lag behind productivity developments. Systems with decentralised bargaining structures and low coverage may have a higher exposure of employees in terms of wage and jobs at risk.

Wages and economic competitiveness have received particularly close attention since the global economic crisis, and it is clear that there is a general concern in the EU emerging from the Country Specific Recommendations in the European Semester that if wages increase without any rise in productivity, companies based in the European Union will be put at a disadvantage compared to the EU's global competitors, especially those in labour-intensive industries. Having said that, the most competitive European economies tend to have higher, rather than lower, minimum wage levels (for instance, the Nordic countries) although the causality is not clear. A body of research evidence is building up however that increases in minimum wages tend to foster increases in productivity (Rizov and Croucher, 2011; McLaughlin, 2007). Analysis of low-paid employment suggests that low paid employees are not typically concentrated in trade-intensive industries like manufacturing which means that minimum wages may only have limited impact on international competitiveness in Europe (in the context of the overall decline in such sectors in the EU). The overall economic impacts appear to reflect whether employers can mitigate potential negative effect on employment levels by compensatory measures – e.g. changing overall pay structures, reducing non-wage costs, or accepting lower profits.

As already mentioned, some argue that minimum wages foster productivity and efficiency (Kaufman, 2009). As well as increasing the incentive to work and the motivation of employees, they could reduce staff turnover (Card, 1995). On the other hand, by acting as a 'beneficial constraint' for employers, they make it difficult to choose a low-cost competitive strategy, fostering instead efficiency and innovation (Brosnan and Wilkinson, 1988; Kleinknecht, 1998). Although the link has been difficult to establish empirically, some recent studies in the UK have been able to identify it, especially in large firms (Rizov and Croucher, 2011; Riley and Bondibene, 2013). Eurofound (2014) notes that no empirically sound conclusions can be reached as to whether certain wage bargaining regimes fare better in linking pay with productivity (research tends not to be able to control for other potential influences). However, descriptive findings suggest that more coordinated bargaining regimes had the closest link between pay and productivity over the medium term (1999– 2012) and hence the smallest loss of wage-related competitiveness.

Another economic effect of a minimum wage increase is potentially demand stimulation. The extent to which wage developments (and changes in the wage share of GDP) impact on economic growth could work both ways. While wages can be used for consumption (and savings), a declining wage share (hence an increasing profit share) would leave room for investments and launch investment-led growth, particularly in small export-oriented economies. Eurofound (2014) draws on empirical studies on this issue suggesting that in most economies consumer demand is wage-led (both consumption and investment tend to fall as wages go down). In some small open profit-led economies[12] the effect of a declining wage share on net exports is found to be strong enough to compensate for reductions in domestic demand but on the whole the aggregate euro zone is considered to be wage-led, implying that simultaneous wage moderation might have a negative effect on demand and economic growth (Eurofound, 2014, p. 33) (although this might not be the case where wage moderation is a response to slow productivity growth).

The implications of minimum wages for inflation have also been considered (given that employers could pass on increases in wages in price increases). These effects would be concentrated on industries with high numbers of minimum-wage workers, and those further down the supply chain. The effects have proved difficult to model however in the current economic climate there has been more attention on whether minimum wages could be used to prevent deflation (Herr and Kazandziska, 2011).

4.3 Pay distribution/inequality

Research evidence from a range of countries suggests that statutory minimum wages have a progressive effect on improving the situation of the lowest paid workers as far as the distributive effects are concerned (Grimshaw, 2012). At the same time, these results depend on the level of the minimum wage and how well it is practically enforced, and the number of workers affected. Overall, the trend has been to increasing wage inequality mainly driven by rises in pay for employees at the top end of the pay distribution whose income has risen above the average. Studies have looked at the impact of minimum wages and the wage inequality for low paid workers at the bottom end of the pay distribution, the incidence of low pay[13] and gender pay gaps. The findings in this area are summarised here.

[12] Austria and Netherlands are highlighted as examples (Eurofound, 2014)

[13] OECD defines the incidence of low-wage employment as the share of full-time workers earning less than two thirds of median earnings.

Wage inequalities for low paid workers

Minimum wages serve to reduce wage inequalities of the lowest paid workers. In relation to wage inequality amongst low paid workers, international comparative studies by Sniekers (2010), Lucifora et al.'s (2005) and Watt (2010) show a positive effect on wage equality (for example as measured as the ratio of the bottom decile wage to the median). Different studies find varying estimates for the strength of the positive effect however, possibly reflecting the importance of other factors in the countries studied such as the strength and level and coverage of collective bargaining, which could work to reinforce the effect of minimum wages, or subsume or distort the effects depending on the intersection between collective bargaining and minimum wage policy at any point in time (Grimshaw et al, 2013).

Sniekers (2010) undertook an econometric analysis of the association between the value of a statutory minimum wage, and earnings inequality in 23 OECD countries. The trend the value of the minimum wage as a percentage of median earnings (known as the Kaitz index measure of a country's minimum wage) since the late 1990s was shown to have had a positive effect on wage equality at the bottom of the wage structure. The finding is confirmed by other studies Watt (2010), Koeniger et al. (2007).

Pay gaps

Minimum wages are considered to have a beneficial impact on narrowing the gender pay gap. Women's over-representation in low-wage employment means that they are likely to benefit most from minimum wage agreements (Rubery et al., 2005).

Incidence of low pay

In relation to the effects of minimum wages on the incidence of low pay, it is noted that on average, countries with strong collective bargaining coverage and a high-value minimum wage register the lowest incidence of low-wage employment. Countries with weak collective bargaining (less than 50% coverage) display a relatively high incidence of low-wage employment[14], which tends to be above that in countries with stronger collective bargaining coverage (Figure 2 shows the incidence of low-wage employment in 22 Member States grouped by collective bargaining coverage). The patterns suggest that the impact of minimum wage systems on the incidence of low pay is dependent on the strength of collective bargaining coverage. Countries with strong collective bargaining coverage and a high-value minimum wage (such as Belgium and France) register the lowest incidence of low-wage employment. Having a statutory minimum wage is not a condition of improved pay equity, some countries have achieved a low-incidence of low wage employment through wide coverage of collective bargaining (Denmark, Sweden and Austria) (Grimshaw et al, 2013).

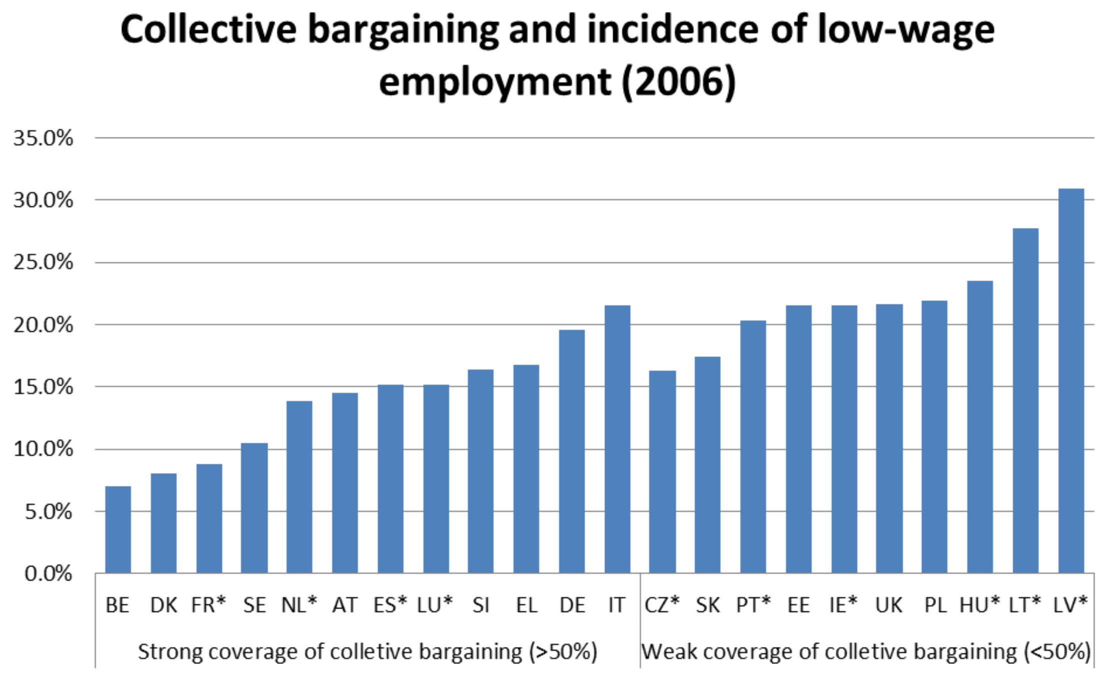
It should be noted that different minimum wage setting mechanisms produce different distributions of wages at the bottom half of the pay distribution. Countries with national statutory minimum wages tend to have few workers below the minimum wage threshold and an abrupt increase after it. In collectively agreed models there tends to be a smoother distribution of wages below the average (Eurofound, 2014).

There is a redistributive effect associated with increases in minimum wages due to a knock-on effect to workers on other wage levels, although these vary by sector and country. In countries with strong collective bargaining coverage, unions and employers tend to renegotiate wages with reference to the new wage floor. However, recently concerns have arisen that there is an increasing tendency to generate negative ripple

[14] Share of full-time workers earning less than two-thirds median earnings.

effects (ie. employers have shifting the costs of minimum wage increases on to low-wage workers by reducing pay differentials at the lower end of the pay scale). Some commentators have identified that, in view of reductions in wage levels following the economic crisis, and the reduced influence of collective bargaining on wage levels, there is a risk that the statutory minimum wage becomes the primary determinant of pay expectations. As a result there may be an increased skewing of wages towards the minimum end of the pay scale, for low to medium skilled jobs, because employers may seek to compensate for increased costs at the lower end due to minimum wage increases by cutting wages for jobs above the minimum. Part-time workers, young people and women with low level qualifications may be most heavily affected, although the context for collective bargaining is likely to play a part: i.e. where the role of unions in pay bargaining is strong pay differentials are more likely to be maintained. Using data from interviews and collective agreements in five European countries, Grimshaw et al (2013) illustrate how pay bargaining strategies (and government policy approaches) shape the pay equity effect, particularly the extent to which there is resistance against, or compliance with, pressures to restore pay differentials following minimum wage rises. The effects depend on the importance attached to maintaining pay equity norms.

Figure 2



*These countries have statutory national minimum wages.

Sources: Adapted from Grimshaw et al (2013) which presents OECD minimum wage database information for Kaitz values along with collective bargaining from country sources and. Structure of Earnings Survey (2006) for low-wage incidence.

5. Conclusions

Key findings from the overview of different approaches to minimum wages summarised in this review include the following:

- Minimum wages exist in all EU Member States, even if they operate in very different ways and do not cover all those who are employed in all Member States. Universally binding national minimum wage systems vary from those based on national collective agreements to those regulated by governments. In recent years there has been a tendency towards having statutory national systems.

- Women and young workers tend to benefit most because they are more prevalent in the lowest paid jobs. The focus on national minimum wages has emerged alongside issues for trade unions due to the undermining of collective bargaining in many member states. Negative economic conditions and weakening power of trade unions increasingly means national minimum wages are seen as a mechanism to maintain pay for the lowest bands of workers. However, the low relative value of minimum wages has meant that a large low-pay sector has developed in many countries despite the existence of a national minimum wage.
- There are differing conceptual views on the likely impacts of increases in minimum wages on employment and the economy. Recent empirical research has tended to suggest that potential negative implications for jobs and competiveness can be compensated for through other mechanisms, including productivity gains.
- Minimum wages have a potential beneficial effect on pay equity measures, including reducing gender pay gaps. Consideration of the implications of minimum wages for wage inequalities highlights the importance of trends in average wages in real terms and the industrial relations context.

Different trends and patterns can be observed relating to the experiences of different national minimum wage regimes. Findings include:

- In models where minimum wages are set through collective agreement, minimum wages are generally considered to be a relatively high level. Coverage emerges as a key issue in these countries since the agreements may only apply to some groups of workers by sectoral and occupational collective agreement. Some Member States however with collective agreement models appear to have put in place measures to maximise the coverage across the labour force (for example making membership of an employee organisation compulsory or through extension mechanisms). Real value of minimum wages fluctuates over time and no particular pattern can be discerned in relation to the changes in recent real value of minimum wages by the type of minimum wage setting regime.
- The empirical evidence suggests that the relationship between minimum wage systems and the incidence of low pay employment is complex, and reflects the distinctive characteristics of industrial relations institutions in different Member States and the role of social dialogue and government policy goals in minimum wage policy (Grimshaw et al, 2013). Countries with strong collective bargaining coverage and a high-value minimum wage register the lowest incidence of low-wage employment. In statutory systems, although there are relatively few workers who are not covered by the national minimum wage, the level of the minimum wage tends to be below that in collectively agreed models. Several Member States with this approach have relatively high low-pay incidence and a less smooth distribution of earnings below the average. There has been a growing concern in some Member States related to the issue on in-work poverty (which could also link to approaches to in-work benefits).
- The different types of minimum wage regimes appear to be associated with different distributions of wages at the bottom half of the pay distribution. Although countries with national statutory minimum wages tend to have few workers below the minimum wage threshold the pattern shows an abrupt increase. In terms of the pattern of pay across grades of workers, in collective agreement regimes models there tends to be a much smoother distribution of wages below the average (Eurofound, 2014). This may reflect the role of collective agreements and the industrial relations framework in protecting established pay equity norms.

- No clear links have been shown between bargaining systems and pay on one hand, and productivity on the other. The link between pay and productivity is different across countries which share industrial relations approaches (i.e. countries which share characteristics perform very differently) suggesting that the industrial relations approach per se does not appear to be a factor). At the same time, Member States which have relatively high minimum wages have been shown to remain competitive. Minimum wages and industrial relations can impact on productivity and in relation to the economic effects, the case has been made for a wage-led growth policy, with stable or increasing wage shares, strengthened

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Annex 1: EU interventions on wages through the European Semester Country Specific Recommendations

Commission's recommendations resulting from the European Semester of economic policy coordination for 2011/12	Commission conclusions on the first Semester stressed that corrections were required to ensure that wages support competitiveness and develop in line with productivity growth (Bulgaria, France and Italy). Recommended the review of wage-setting systems in consultation with social partners (Austria, Cyprus, Luxembourg, Malta).Spain was asked to reform the collective bargaining process and wage-indexation system.
Commission's recommendations resulting from the European Semester of economic policy coordination for 2012/13	Recommendations on wage policies were mostly in line with the recommendations of the Employment Package (e.g. to review or reform the existing wage setting mechanisms in consultation with the relevant social partners including the indexation system (Belgium, Cyprus, Luxembourg and Malta). Others were asked to ensure wage growth supported productivity or competitiveness/job creation (France, Finland and Germany). Italy was asked to monitor and reinforce new wage setting mechanism.
Commission's recommendations resulting from the European Semester of economic policy coordination for 2013/14	Countries were asked to review or reform the existing wage setting mechanisms in consultation with the relevant social partners (Italy) including the indexation system (Belgium, Luxembourg and Malta). Finland and Slovenia were asked to ensure wage growth supported competitiveness. For France, the recommendation was to 'lower the cost of labour' and to make sure that the level of the minimum wage supports job creation and competitiveness. For Germany, the recommendation however was that wage growth supports domestic demand.

Source: Eurofound, 2014