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Explaining Cross-National Variation in Workplace Employee Representation

John Forth[1], Alex Bryson[2] and Anitha George[1]

Abstract

Across Europe, there are many differing opinions on whether workplace employee representation should be encouraged or discouraged. Yet there is very little evidence on the variations in workplace employee representation across Europe or the reasons for this. We use a workplace survey covering 27 EU countries to show that its incidence is strongly and independently correlated with the degree of centralization in a country's industrial relations regime and the extent of legislative support. Industry rents are also important in explaining trade union presence, but are unimportant in the case of works councils. Turning to the effects of workplace employee representation, we find support for the exit-voice model - traditionally associated with Anglo-Saxon regimes - whereby worker representation is associated with poorer perceptions of the employment relations climate and with lower voluntary quit rates.

JEL codes: J51; J53; J83
Keywords: Trade unions; Works councils; Employee representation; Social dialogue

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1. Introduction

In many countries of the European Union – and within the European Commission – the provision of opportunities for effective dialogue between employers and workers is seen as an important complement to legislation in achieving the twin goals of social cohesion and economic growth. From an economic perspective, employee representation is seen as a means of reducing transaction costs, facilitating information exchange and negotiating a path through changed circumstances (see Simon, 1951; Hirschmann, 1970; Freeman and Lazear, 1995). From a social perspective, it is seen as a means of providing workers with opportunities to influence the terms of their engagement, particularly when times are hard. 'Social dialogue' is thus seen as a "component of democratic government and also of economic and social modernisation" (European Commission, 2002: 6) and so employee representation is broadly encouraged. However, policy makers in some countries (such as the UK) take a more laissez-faire approach, arguing that employers and employees should be seen as equal partners in the employment exchange and that one can expect them jointly to arrive at forms of workplace regulation that are efficient; this may or may not involve forms of employee representation.

Although there have been recent investigations of the structures and outcomes of social dialogue at sectoral and national level within Europe (e.g. Avdagic, 2010; Pochet, 2005; Keller and Weber, 2011), there is a paucity of empirical research into the prevalence, determinants and outcomes of employee representation at workplace-level. We use the European Company Survey 2009 (ECS 2009) to investigate the prevalence and nature of workplace employee representation across the EU27 and its candidate countries. Our contribution is five-fold.

First we document the extensive variation, both within and across countries, in the prevalence of trade union representation and works council-type

representation. We find the proportion of workplaces with some form of institutional worker representation exceeds 50 per cent in Denmark, Sweden, Spain and France, but is less than 20 per cent in the Czech Republic, Portugal and Greece.

Second, we confirm the results of existing single-country studies (e.g. Addison et al, 2010; Bryson et al, 2004) in finding that workplace employee representation is more likely in larger workplaces and organisations, in the public sector, and in workplaces which have recently undergone organizational change. We also confirm hypotheses that union representation will be more likely in industry sectors where there are rents to share. We are thus able to establish that many of the existing 'stylized facts', which have been established in studies of Britain, France and Germany, apply more broadly within Europe as a whole.

Third, the availability of multi-country survey data provides an opportunity to identify the national institutional factors which either encourage or discourage the establishment of workplace-based structures for employee representation. Country-level factors matter a great deal: country dummies account for roughly one-fifth of all the variance in workplace representation. The incidence of workplace representation is strongly and independently correlated with the degree of centralization in the industrial relations regime, the extent of public confidence in trade unions and the extent of legislative support for workplace representatives.

Fourth, we examine the incidence and correlates of different *types* of worker representation, focusing on the potential complementarity between unions and other forms of representation in countries where both are possible, such as the UK (Hall et al, 2009) and Germany (Addison et al, 2010).

Fifth, we consider the association between the *presence* of workplace employee representation and the *character* of employment relations. We find evidence in support of the exit-voice model traditionally associated with Anglo-Saxon regimes whereby worker representation is associated with poorer perceptions of the employment relations climate and with lower voluntary quit rates. However, these findings on the effects of worker representation are only statistically significant where representation takes a dual-channel form, combining both trade union and works council representation.

The remainder of this paper is organized as follows. In Section 2 we briefly outline the key factors in the decision by a firm or its workers to develop arrangements for employee representation. This provides the broad framework for Section 3 in which we outline our hypotheses in more detail. Section 4 discusses data and methods, whilst Sections 5 and 6 present our results. Finally Section 7 concludes.

2. The origins and form of employee representation

In the absence of legislative constraints, the decision by a firm or its workers to develop arrangements for worker representation is a choice made having appraised the costs and benefits of the decision. Among the potential benefits for an employer is the potential for increased labour productivity, which may arise for a number of reasons. First, worker representation can serve as an efficient means of aggregating workers' tacit knowledge about production processes and communicating this knowledge to the employer to assist with productivity enhancements. In turn, employee quit rates may fall where employee representation gives effective voice to employees' concerns (see Freeman and Medoff, 1984), thus reducing the costs employers face when employees quit and need to be replaced. Lengthier contracts with employees also mean employers are able to recoup the costs associated with long-term investments in their

human capital such as training. Among the potential costs of employee representation include the transaction costs associated with dialogue with employee representatives, although one would typically expect these to be lower than the costs incurred through attempts to discuss matters with each employee individually. In the case of union representation, employers may also need to factor in the potential costs of rent-sharing and the hold-up problems associated with industrial action.

Whether fostering employee representation is optimal for a given firm depends on the firm's particular circumstances and the basis on which they compete. Engaging with employee representatives will typically reduce transaction costs more for a large firm than a small one. The benefits of any decrease in employee quits will similarly be of greater benefit to firms that are heavily reliant on scarce types of labour than to firms for whom replacement labour is plentiful. One of the difficulties employers face is that the net benefits are not clear cut in each individual case.

An economic cost/benefit framework can also be applied to the choices employees make in deciding whether and, if so, which type of representation to invest in. In a workplace setting, the costs for employees might include the opprobrium of an employer intent on avoiding social dialogue, and the time and effort employees have to devote to the process of communication with the employer through representatives. The incentives to engage in social dialogue will be higher where there are clear private returns to the employees from the process of social dialogue, such as a wage premium. However, a problem may arise where the benefits of representation are public goods, that is to say, benefits that accrue to all workers, irrespective of their personal investments in social dialogue. This creates a problem of collective action whereby it may be rational for employees to "free-ride" on the efforts of others. If all make this decision, social dialogue may not emerge because for each individual the costs

of pursuing social dialogue outweigh the benefits. This incentive problem can provide the rationale for state intervention which precludes the possibility of workers "free-riding" on the benefits of others. One such solution is the closed shop, wherein employees in a unionised environment must either join the union or pay an agency fee to the union in recognition of the fact that collectively agreed terms and conditions apply to all at the workplace (Olson, 1965).

If a firm decides that the encouragement of employee representation is in its interests, it still has a choice as to which type to use. That choice can be characterised in terms of a "make" or "buy" decision (Willman et al., 2007). A firm may choose to invest in their own mechanism by implementing a structure of its own design, such as an employer-initiated consultation committee. Alternatively, the employer may choose to "buy" in a mechanism for the conduct of social dialogue, such as a trades union, which may act as an agent for the employer in the production of social dialogue. These are not mutually exclusive choices since employers may seek to combine different channels of representation. The choice as to which form, or forms, to deploy also comes with costs and benefits. The "make" decision comes with up-front costs since the onus is on the employer to put mechanisms in place which can help deliver ‘voice’. The "buy" decision entails costs of a different kind, including the transaction costs of dealing with an independent third party, and the potential for counter-party risk which arises from the fact that the union is operating not simply as an agent for the employer, but also as a voluntary membership organization committed to delivering benefits for its members. If the latter takes precedence, and there is a conflict between the interests of the employer and employees, the union may choose to prioritise the latter at the expense of the former.

Governments can alter the cost/benefit calculation firms make when deciding whether or not to engage in social dialogue and, if so, how. They may do so directly, for example by requiring firms to engage in discussions with employee

representatives if the firms is of a certain size or if it is considering redundancies. They may also do so indirectly, for example by reserving preferential contractor status for those firms with representative structures in place. Employees can also alter the cost/benefit calculation made by firms. The most obvious example might be employee collective action to cut off the supply of labour to the employer - what Freeman and Medoff (1984) termed the "monopoly face" of trade unionism. By coming together collectively, employees are able to leverage their labour power in a way that is more effective than when they act in isolation.

3. Empirical Approach and Hypotheses

The foregoing discussion serves to illustrate that the presence or absence of workplace representation can be determined by a wide range of factors, some of which are internal to the workplace and others of which relate to the product market in which it operates or the broader institutional context in which the firm is located. Our analysis of the ECS 2009 investigates the incidence at workplace level of both trade union representation and works council-type bodies. We consider influences at three different levels: (i) macro-level, by which we mean country-level characteristics such as the extent of legal support for institutions of employee representation; (ii) meso-level, by which we mean sector-level characteristics such as the degree of product market competition; and (iii) micro-level, by which we mean the characteristics of the workplace or its employees. Our principal focus will be on the macro- and meso-level correlates of worker representation.

Macro-level country effects: Different regions of the EU have different orientations to social dialogue. It is well-entrenched in the Nordic countries with a social democratic tradition, less so in more liberal market economies. Visser

(2009a) identified five different industrial relations regimes within the EU.[3] These five regimes were as follows:

- North - characterized by organized corporatism. Examples: Denmark, Sweden.
- Centre-West – characterized by social partnership. Examples: Belgium, Germany.
- South – characterized by polarized or state-centered systems. Examples: Italy, Spain.
- West – characterized by liberal pluralism. Examples: the UK and Ireland.
- Centre-East – characterized by fragmented/state-centered systems. Examples: Bulgaria, Czech Republic.

Although those countries with strong social democratic traditions may be more predisposed to worker representation, there is a separate issue as to whether this is situated at workplace-level. Whether a tradition of centralized industrial relations promotes or hinders the development of workplace-level employee representation will depend on whether they complement or substitute for one another (the functional interdependence between workplace representation and other facets of the industrial relations system in that country). Any workplace "representation gap" can be overcome to some degree when forms of representation are well-established above workplace-level, as in countries where sectoral and national pay bargaining is ubiquitous. However, in other areas, such as assistance with individual grievances, representation at levels above the workplace is unlikely to be an adequate substitute. In the German case, it is often argued that works councils and sectoral pay bargaining complement one another because works councils are constitutionally precluded from engaging in pay bargaining (Addison, 2009).

[3] Visser's regimes were configured by reference to a variety of factors (not simply patterns of employee representation) including: the principal level of bargaining, the role of the social partners in public policy and the role of the state in industrial relations.

Clear predictions about the likelihood of workplace employee representation also stem from the legislative provisions in various countries. Countries lower the costs of worker representation to firms and workers where they enact legislation supportive of workplace-level representation. Economists, sociologists (Freeman and Rogers, 1999) and industrial relations academics (Towers, 1997) have argued that employees in Anglo-American settings face a "representation gap" which arises specifically from the high ratio of costs to benefits in the generation of social dialogue at workplace level. In these settings legislative support for union-based social dialogue is minimal - some of it is ineffectual - and, as such, employees face substantial start-up costs in organizing a sufficient proportion of all workers to achieve union recognition. This situation contrasts markedly with countries such as France, where statute ensures that employees have relatively costless access to workplace-level social dialogue via a union representative.[4]

The 2002 EU Directive on the Information and Consultation of Employees (ICE) offers a European framework but implementation varies across Europe such that the ease with which workers can trigger the right to workplace representation varies with establishment size. In Austria and Germany, businesses with as few as five employees are covered; in Poland and the UK the regulations only apply to businesses with 50 or more employees. We might therefore expect country effects to persist even having controlled for the composition of workplaces and workforces. Countries also differ in the extent to they have sought to prescribe the tasks of different representative structures and, in particular, the extent to which the Information and Consultation regulations reinforced existing representative arrangements or sought to establish new alternatives. [5]

[4] Until recently, French legislation allowed any of the five main union confederations to acquire collective bargaining rights in medium-sized and large firms even if membership density was very low. In the UK, in contrast, legislation in support of union recognition is a recent innovation and is only triggered if the union can demonstrate majority membership or support within the workforce.

[5]Van Gyes (2006), Aumayr *et al* (2011a) and Fulton (2010) provide synopses of these legislative requirements.

Meso-level effects: The fact that there is a degree of homogeneity within sector in the industrial relations arrangements that are found across Europe (Bechter et al, 2010) suggests an influence from the nature of production, and so we expect some variance in the extent of worker representation across industry sectors. Greater levels of product market competition serve both to increase the benefits to employers of avoiding forms of joint regulation which may raise costs (especially wage costs) and also to decrease the benefits to employees of establishing or maintaining mechanisms for rent-sharing (Brown, 2008). This suggests that unions are more likely to be present when markets are less competitive (works councils may not exhibit any association as they are not primarily rent-seeking). On the other hand, financial distress can increase the demand among employees for representation as a means of protecting existing terms and conditions (Jirjarhn, 2009; Machin and Wadwhani,1991). This would suggest a positive association between competition and the presence of both unions and works councils.[6]

The degree of sectoral bargaining may also have an effect on the prevalence of workplace structures for representation, although the nature of the association is not clear cut. On the one hand it is possible that strong sectoral bargaining may reduce the incentives for employers and employees to invest in workplace-level structures; on the other hand, the incentives may be raised if discussion is needed within individual firms over the detailed application of a sector-level agreement.

4. Data and methods

[6] The nature of the product or service may also be relevant. Dundon and Gollan (2007) argue that dialogue between managers and employees will be more beneficial (in efficiency terms) when there is a high degree of customer contact for staff – as in most service industries - since employees' private knowledge of customers' needs will be important in identifying quality improvements.

We test the various hypotheses outlined above using data from the 2009 European Company Survey (ECS 2009). This large-scale, European-wide survey of workplaces was carried out across the 27 EU Member States and the candidate countries of Croatia, the Former Yugoslav Republic of Macedonia (FYROM) and Turkey (30 countries in total). The survey was managed by the European Foundation for the Improvement of Living and Working Conditions and administered by TNS Infratest Sozialforschung.

The survey was conducted in two stages. The first stage comprised a telephone interview with a management representative, who was asked (among other things) about the structures of employee representation that were present in the workplace. The second stage comprised a telephone interview with an employee representative in those workplaces where an institutionalized or statutorily-based form of employee representation was identified to be present, although the data collected from employee representatives is not used in this paper. The universe for the survey comprised all workplaces with 10 or more employees from all sectors of industrial activity, with the exception of Agriculture (NACE Rev 1.1 Section A), Fishing (Section B), Activities of households (Section P) and Extra-territorial organizations (Section Q). Workplaces from both the private and public sectors were in scope to the survey. The sample was selected by variable probability sampling, over-representing large workplaces and those in smaller industries and countries; sampling weights are provided with the survey data to correct for these purposeful sample biases. The management interview yielded an achieved sample of 27,160 workplaces: an average of around 900 workplaces per country.[7] Further details about the content and methodology of ECS 2009 are provided by Riedmann et al (2010) and in the methodological report which accompanies the version of the survey data which has been deposited with the Economic and Social Data Service (European Foundation for the Improvement of Living and Working Conditions and TNS Infratest Sozialforschung, 2010).

[7] In practice, the achieved sample size was approximately 1,500, 1,000 or 500 depending upon the size of the universe in each country.

The management interview in ECS 2009 identified the presence of various forms of workplace employee representation. The focus of the analysis which follows is on institutional or statutorily-recognised forms of workplace representation, by which we mean trade union (TU) representation and works-council type (WC) representation. Appendix A indicates the form of words used to identify eligible bodies on question MM650 in each of the 30 countries which featured in the survey sample. Other questions identified the presence of health and safety representatives, company-level representatives and ad hoc forms of representation, although questions about the latter two were only asked in workplaces with no TU/WC forms of representation.

The survey interviews also provide a range of other indicators which we include in our regressions as controls. These include workplace size, firms' organizational structure, ownership, workforce composition and work organization. These are described in more detail in footnotes to our results tables.

To test our hypotheses regarding the importance of country and industry-level factors, we match on a range of external data items:

- Industrial relations regime: Which of five industrial relations regimes (North, Centre-West, South, West, Centre-East) the country is classified to. Source: Visser (2009a).
- Model of workplace employee representation: Whether it is possible for both unions and works council-type representation to be present at the workplace and, if so, whether their roles are separated to any extent under the law. Source: Fulton (2010).

- Dominant level of bargaining: Whether the dominant level of wage bargaining in the country is national, sectoral or company. Source: variable LEVEL in the ICTWSS database (Visser, 2009b).
- Threshold for triggering works council-type representation: The minimum number of employees that must be present in an undertaking in order for workers to be able to trigger the establishment of works council-type representation. Source: Fulton (2010).
- Legislative support for trade unions: Whether there is legislation to enable workers to trigger trade union representation within an undertaking. Source: Fulton (2010).
- Public confidence in trade unions: The mean score per country on Question 63E in the 2008 European Values Survey, which asks respondents to rate their degree of confidence in trade unions on a four point scale ('A great deal'; 'Quite a lot'; 'Not very much'; 'None at all'). Authors' calculations from survey data.

Each indicator is available for the EU27; the value held by a country on each of the indicators is shown in Appendix B.

In order to better understand any observed differences between industry sectors we also match on an external indicator of profitability which is compiled at industry level within each country:

- Profitability: The price-cost margin, computed within each country at one-digit NACE sector level.[8] Authors' calculations from 2006 data in the EUKLEMS database (Timmer at al, 2009).

[8] There are a variety of possible measures of market environment, however the price-cost margin is the one which is most extensively available for the current purposes, being available at sector level (NACE 1-digit, i.e. 13 sectors) in 25 of the 30 countries which feature in ECS 2009 (the exceptions being Bulgaria, Romania and the three candidate countries). The price-cost margin is computed as (Gross output – intermediate inputs – labour costs)/Gross output.

The analysis uses logistic regression methods to identify the independent association between worker representation and our variables of interest. We present the marginal effects which show the change in the probability of the outcome (e.g. the probability of a workplace having some form of employee representation) that arises – after controlling for other factors – when one moves from the reference category on the relevant characteristic to the specified category.[9] A marginal effect of 0.05 can thus be translated as an increase of 5 percentage points in the probability of the outcome.

We utilize the establishment weights (EST_WEI) which have been provided with the public-use dataset to account for the use of variable probability sampling during the sample selection process. A robust variance estimator is used to adjust estimated standard errors to account for any resultant design effects.

When we replace the country identifiers with country-level characteristics – such as the degree of centralization in bargaining arrangements – we must account for the fact that, unless these can account for all of the between-country variance, there will remain some within-country correlation in the residuals. This will bias the standard errors from any regression analysis downwards (Moulton, 1990). We account for this by explicitly acknowledging the clustered nature of the data in variance estimation.

The ECS 2009 data are cross-sectional in nature, offering a snapshot of practice in each workplace at one specific point in time. It is not possible to robustly identify causal effects with such data. However, concerns about endogeneity bias are necessarily more pertinent when considering the influence of workplace characteristics than when considering the influence of sectoral or country-level characteristics.

[9] The marginal effects are computed after holding all other variables in the regression at their mean value.

5. Results: Incidence of Worker Representation

The raw incidence of union and works-council representation at workplace level across the 30 countries covered by ECS 2009 is shown by the bars presented in Figure 1 . There is considerable variation between countries in the percentage of workplaces with at least one of the aforementioned forms of employee representation: the rate is above 55 per cent in Denmark, Sweden and Finland but below 20 per cent in five countries, most notably Portugal and Greece where fewer than 5 per cent of workplaces have either TU or WC forms of employee representation. The average for all workplaces in the sample is 34 per cent. Similarly, there is considerable variation across countries in the percentage of workplaces with TU or WC representation. Some countries have only one form: TU representation is the only form observed in ECS 2009 in Sweden, Cyprus, FYROM, Turkey and Malta; conversely WC-type representation is the only form observed in Spain, Luxembourg, Germany and Austria.[10] Among the remaining 21 countries some, such as the Netherlands and Cyprus, are dominated by instances in which only one of the two types of representation is present whilst others, such as Denmark and Italy, are dominated by instances where both are present.

[Figure 1 here]

The regression analysis first examines the characteristics that are associated with the presence of some form of workplace employee representation (irrespective of whether it is TU or WC representation); it then moves on specifically to consider the two types separately. The analysis begins by specifying a regression model in which the dependent variable is a binary variable of whether TU/WC representation is present at the workplace. The

[10] In Spain, this was due to a mistake in the survey, which should have provided the option for workplace managers also to record the presence of trade unions (see Aumayr et al, 2011a).

results are presented in Table 1, where the first column shows the marginal effect of country alone without any further covariates. Greece is set as the reference category and the marginal effects thus indicate the magnitude of any difference in the extent of workplace employee representation between Greece and each specified country. These values – which provide the starting point for the regression analysis – are thus directly comparable to the total height of the bars in Figure 1.

[Table 1 here]

In column two we control for workplace-level covariates. We do not dwell on the pattern of results across these covariates, as our principal interest is in the determinants at meso and macro-level, but the coefficients on the workplace-level characteristics confirm the patterns seen in existing studies in countries such as Britain (e.g. Bryson et al, 2004) and Germany (Addison et al, 2010). We find, for example, that workplace employee representation is more likely in larger workplaces and organisations, in the public sector, and in workplaces which have recently undergone organizational change.[11]

Whilst the rank order of countries remains stable after controlling for workplace-level covariates, the differences between countries typically reduce in magnitude, indicating that at least some part of the between-country variation shown by the total height of the bars in Figure 1 is a function of heterogeneity across countries in workplace characteristics. The reductions are relatively small, however, and substantial differences between countries remain. These are shown by the asterisks in Figure 1. The probability that a workplace in Denmark has some TU/WC representation remains 54 percentage points higher than that for a workplace in Greece, for example, even after controlling for the workplace characteristics which are included in this baseline specification.

[11] A more extensive discussion of these results can be found in Bryson et al (2012).

In seeking to explain the cross-country variance in the incidence of worker representation we explore the relevance of IR regime, the degree of centralization of wage bargaining and the extent of legislative support for workplace representation. In doing so we restrict the analysis sample to the 27 EU Member States, thus dropping Croatia, FYROM and Turkey from the analysis since few of the external data items are available for these three countries.

Figure 2 shows the percentage of workplaces with TU or WC representation in each of the 27 EU Member States after grouping countries into the five IR regimes proposed by Visser (2009a) (the estimates are otherwise identical to those shown in Figure 1). There are clear differences between the regimes, with workplace representation being most prevalent (on average) among countries classified to the Northern regime and least prevalent in countries classified to the West. To examine the extent to which these persist after controlling for other factors, we enter the classification in place of the country dummies to the baseline regression discussed above (Model 1 in Table 1). Taking countries belonging to the West regime as the reference category, and controlling for all other factors in the baseline specification, the probability that a workplace has TU/WC representation is 6 percentage points higher (on average) among countries belonging to the Centre-West grouping, 11 percentage points higher among those belonging to the Centre-East grouping, 20 points higher among those in the South grouping and 35 points higher in those belonging to the North grouping (see Model 1 in Table 2). However, as Figure 2 clearly shows, there is considerable variation *within* at least four of the five regimes and, indeed, the fit of this latest model (Pseudo-R^2 of 0.197) is lower than that of an otherwise equivalent model containing country dummies (Pseudo-R^2 0.245). Understandably, regime membership provides only a partial insight into cross-country differences in the probability of workplace representation.

[Figure 2 and Table 2 here]

Figure 3 shows the percentage of workplaces with representation varies according to specific aspects of the IR regime that pertains within a country. For instance, Panel A shows that only 25 per cent of workplaces have workplace representation in those countries where the dominant level of bargaining is company-level, compared with 43 per cent where the dominant level of bargaining is sectoral. The categories to which each individual country has been assigned are shown in Appendix C.

[Figure 3 here]

The broad indication from Figure 3 is that workplace representation is more prevalent in countries where: the dominant level of bargaining is above company-level; the model of workplace representation favours unions; there is legislative support for union presence; the employee threshold for triggering WC-type representation is lower; and public confidence in trade unions is higher. A series of regressions confirm that each of these individual associations remains after each classification is entered in turn into the baseline regression as a replacement for the country dummies (Table 2). For instance, taking countries where company-level bargaining is dominant as the reference, and controlling for all other factors in the baseline specification, the probability that a workplace has TU/WC representation is 10 percentage points higher (on average) among countries where bargaining is typically conducted at national level, 20 percentage points higher where bargaining is typically conducted at sectoral level and 9 percentage points higher where the dominant approach is to combine sectoral bargaining with company-level bargaining (although the latter difference is not statistically significant from zero).[12]

[12] Marginal effects for the remaining indicators are presented in Models 3-5 in Table 2.

Naturally, these various institutional characteristics are somewhat inter-related. However, it is not practical to enter all of the full classifications simultaneously because of the limited variation that is available in a sample comprising only 27 countries. However a parsimonious specification which reduces each classification to a dummy variable finds that the dominant level of bargaining, legal support for trade unions and public confidence in trade unions each remain associated to a statistically significant extent with the prevalence of workplace representation (see Model 6 in Table 2). This would appear to suggest that the institutional approach to trade unions may be particularly important in determining the overall incidence of workplace representation within a country. However, we make this conclusion only tentatively because of the difficulties, noted above, of identifying the independent effects of a number of country-level characteristics when there are effectively only 27 observations.[13] What is clear, however, is that certain features of the institutional setting – legislative support, public norms and the centralization of bargaining - are important in determining whether representation is available at the workplace.

The fit of this final model is slightly higher than that of the model which classifies countries according to IR regime, suggesting that these descriptive variables are somewhat more informative than five-way regime classification. They also have the advantage of identifying some of the specific components of the institutional setting which appear to be relevant in determining patterns of workplace representation. Cluster analysis was used in an attempt to identify groupings of countries based on their position on the five institutional variables, however it did not yield groupings which clearly discriminated between those countries which have large and small marginal effects in the baseline regression (Model 2 of Table 1). Nevertheless, Figure 4 shows that those countries with large marginal effects in the baseline regression are typically those which score on four or five of

[13] The coefficients on the 'WC threshold' variable, in particular, are heavily affected by the inclusion of the variables indicating the dominant level of bargaining and the model of representation. These three variables are quite strongly correlated; hence the note of caution registered in the text.

the country descriptors just discussed, whereas those countries with small marginal effects are typically those which score on only one or two of these descriptors. The dashed line indicates a clear positive correlation between the two series. Again this indicates that we have identified some of the key institutional determinants of workplace representation in Europe.

[Figure 4 here]

The role of competition

The theoretical framework outlined earlier proposes that the presence of workplace employee representation may be negatively related to the degree of competition in product markets (or put another way: that employee representative structures – particularly unionized ones – will be more likely in sectors where there are rents to share). We investigate this issue by matching on a sectoral indicator of profitability (the price-cost margin) from the EUKLEMS database. This indicator is added to the baseline specification for the sub-sample of 25 countries where it is available, with the analysis being conducted solely among private sector workplaces.

A linear term is not significantly associated with the generalized indicator of the presence of workplace representation (see Table 3 for the detailed results). However, when the variable is divided into quartiles, it does appear that the relationship may be non-linear; specifically, the presence of workplace representation is higher for workplaces in sectors that are outside the bottom quartile of the 325 country*sector combinations that are common to EUKLEMS and ECS (the coefficients on the second, third and fourth quartiles are jointly significant from zero).

Nevertheless, the hypotheses set out in the theoretical framework were concerned primarily with the rent-seeking activities of trade unions. If we run separate regressions for TU representation and WC representation after dropping countries with single-channel representation, sectoral profitability is indeed found to be positively associated with the presence of trade unions and unrelated to the presence of works council-type representation. The same pattern of results is obtained if we run a seemingly-unrelated bivariate probit estimator, which can account for the positive correlation between the presence of TU and WC representation (and any resulting correlation between the residuals from the two models) and adjust the regression coefficients accordingly. Equally, the results remain unchanged after adding a control for own workplace performance (the manager's subjective rating of the economic situation of the workplace, rated on a five-point scale). The general pattern of results is thus in line with our hypotheses.

6. Workplace Representation and Behavioural Outcomes

Theory predicts that the availability of employee representation may cause disharmony to become more apparent at the workplace as issues are communicated and discussed openly between parties with a view to reaching mutually-acceptable compromises (see Freeman and Medoff, 1984). Specifically, the process of social dialogue is likely to bring issues to the surface which may otherwise remain hidden. This may heighten either party's awareness of the other's shortcomings, and may politicize employees so that they become more critical of employment relations than they might otherwise have been. The overall 'climate' of employment relations may thus suffer in the presence of effective social dialogue.

Nevertheless, theory also predicts a negative relationship between voice and exit (Hirschman, 1970). Specifically, by providing voice for workers, structures of

social dialogue encourage employees to tackle the problems they face at work, rather than quitting in the face of dissatisfaction. This provides the employee with opportunities for more stable employment. It is also beneficial for the employer for three reasons. First, a reduction in quits generates savings on recruitment and training costs; second, it reduces disruption in work teams; and third, it increases the likelihood that an employer will reap the return from efforts to up-skill the workforce (see Becker, 1964: 48-49; Booth and Zoega, 1999: 374-5; Chillemi and Gui, 1997). Moreover, by providing employees with an effective voice, structures for social dialogue enable the employer to learn more about the operation of the workplace, thereby facilitating improvements to the production process which may otherwise have been invisible to the employer had employees' knowledge remained private (Freeman and Medoff, 1984).

Our indicators of behavioural outcomes derive from the management interview and are as follows:

- *Climate of employment relations:* The manager is asked to rate the work climate in their establishment on a four-point scale from 'very good' to 'very strained' (MM701).[14]
- *Problems with employee motivation:* The manager is asked whether or not the establishment has problems with low motivation among its staff (MM157).
- *Problems with staff retention:* The manager is asked whether or not the establishment has difficulties in retaining staff (MM157).

The regression models employ a set of three binary outcome indicators: the first identifies workplaces in which the manager reports that the climate is 'quite strained' or 'very strained'; the second identifies workplaces in which the

[14] This is preferred to a measure of the incidence of industrial action (ER260) as the latter is likely to be relevant only to union representation (in many countries, works councils are prohibited from initiating industrial action).

manager reports that there is a problem with employee motivation; and the third identifies workplaces in which the manager reports that there are difficulties in retaining staff. The control variables used in the regression models are the full set used in Model 3 of Table 2. This set of control variables is not sufficient to explain a large share of the variance in staff motivation and staff retention; these have complex determinants, only some of which are identified in ECS 2009. Nonetheless, the control variables which are available do behave broadly as one would expect in each regression. For example, workplaces that are in a "very/quite good" economic situation are less likely to have each of the three negative behavioural outcomes than those which are in a "neither good nor bad" economic situation; and those in a "very/quite bad" economic situation are more likely to have each of these outcomes. We do not show the coefficients on these control variables for reasons of brevity.

The upper panel of Table 4 presents the marginal effects associated with the simple presence of any TU/WC representation, when compared with the absence of such representation. In accordance with expectations, the presence of TU/WC representation is associated with a greater likelihood that the workplace will have a strained climate. There is no association with the probability of having low staff motivation however and the association with the probability of staff retention problems, although negative as predicted in the theoretical framework, is not statistically significant from zero (p value = 0.110).

The lower panel of Table goes on to present the results of separate models in which the simple indicator of representation is replaced with a categorical indicator of the type of representation. When compared with workplaces that have no TU/WC representation, those workplaces with TU and WC representation (dual channel representation) are 3 percentage points more likely to have a strained climate. However, they are 4 percentage points less likely to report problems with staff retention.

These analyses provide some evidence to support the theoretical propositions that, whilst the overall 'climate' of employment relations may suffer in the presence of workplace social dialogue, forms of employee representation, by providing voice for workers, can encourage employees to tackle the problems they face at work, rather than quitting in the face of dissatisfaction. This provides employees and employers with opportunities for more stable employment. The evidence is somewhat tentative, given that we do not find consistent associations with all forms of representation. The direction of causality also cannot be proven with the available data. However, our findings are broadly in line with evidence which has been separately produced on the effects of trade unions in Britain using similar survey data (Bryson and Forth, 2010).

7. Conclusions

Using a European-wide workplace survey we explore the substantial variance in the incidence and nature of workplace employee representation in the European Union and its candidate countries. Country dummies account for roughly one-fifth of all the variance in workplace representation. Its incidence is strongly and independently correlated with the degree of centralization in industrial relations regimes, public confidence in worker representation and the extent of legislative support for it. We also find evidence supportive of the exit-voice model traditionally associated with Anglo-Saxon regimes whereby worker representation is associated with poorer perceptions of the employment relations climate and with lower voluntary quit rates. However, these findings on the effects of worker representation are only statistically significant where representation is dual-channel in form, combining both trade union and works council representation.

One of the most striking findings from this study is the degree to which the incidence of workplace representation varies within and across EU countries.

The theory we deploy to predict the presence of workplace representation proves illuminating in the empirical analysis and helps to explain some this variance. Policy levers, such as legislative support for workplace employee representation, can be influential in guiding practice. We find a number of instances in which the institutional environment (e.g. the dominant level of bargaining in the country) or the legislative framework (e.g. supports for union presence or rights to time off work for representatives) are associated with the extent and nature of workplace social dialogue. However, the bulk of the variance remains unexplained.

From a policy perspective one might legitimately ask whether the absence of worker representation is optimal. The answer to this question depends very much on what policy objective one has in mind. If, for instance, worker representation is regarded as a public good because it extends democracy into the working environment, one may wish to mandate worker representation in EU countries to ensure this mechanism for democracy exists. At the very least one might wish to put in place a simple 'trigger' for worker representation which could be sprung by workers if they choose to do so, as occurs in France in the case of union representation for example. However, policy makers might reasonably be concerned about the possible costs incurred by firms, and perhaps workers, if worker representation was to be mandated across EU countries. Worker representation can incur direct costs via information collection, provision and transmission; there could also be indirect costs associated with wage bargaining and, in some cases, through works council-type consultation and negotiation over non-wage matters. Concerns about burdening business with unknown costs might temper any enthusiasm for legislating in favour of more widespread worker representation.

A further issue to note is that, although the costs to employees of triggering employee representation are very low in a number of EU countries, such as France and Germany, these structures are still not all-pervasive in those settings

(particularly in smaller workplaces). This raises a fundamental policy question: why is there this variance when the mechanisms to trigger representation make it easy for workers to do so? Do the preferences of workers for representation differ fundamentally according to the size of workplace they work in, or do the benefits of representative structures only really become apparent to workers in larger workplaces? And to what extent does the presence of union representation beyond the workplace either temper or enhance the desire for workplace-level worker representation? These are questions which future multi-country studies, such as ECS 2009, can begin to address.

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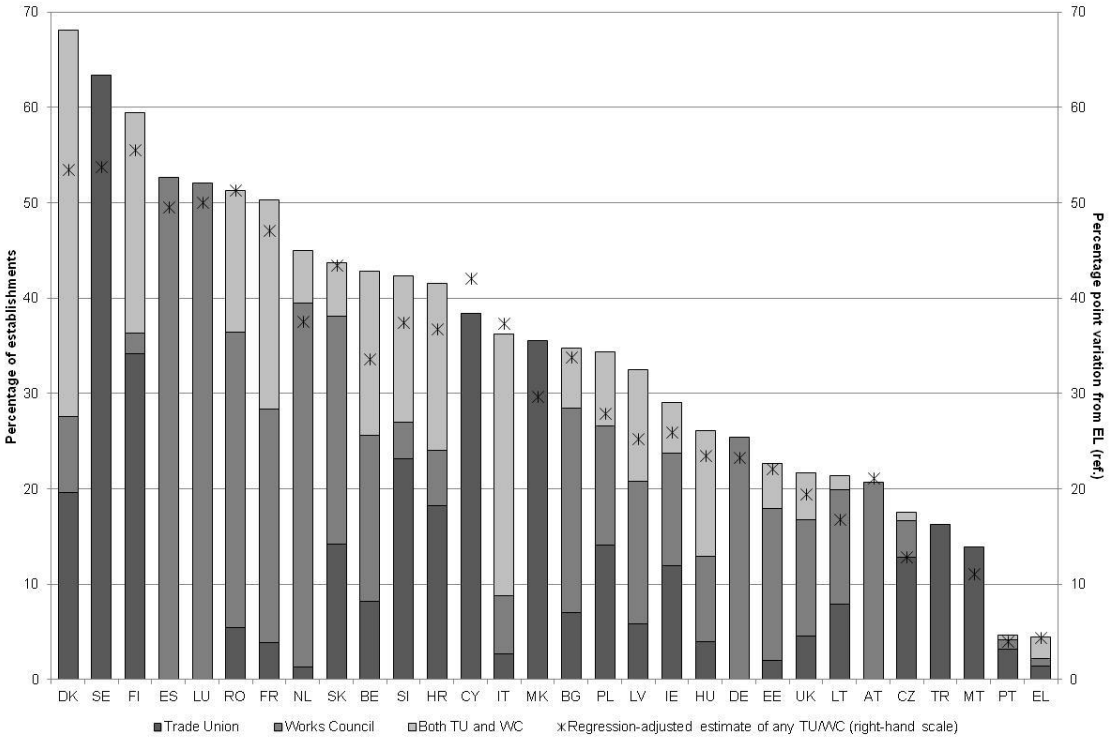
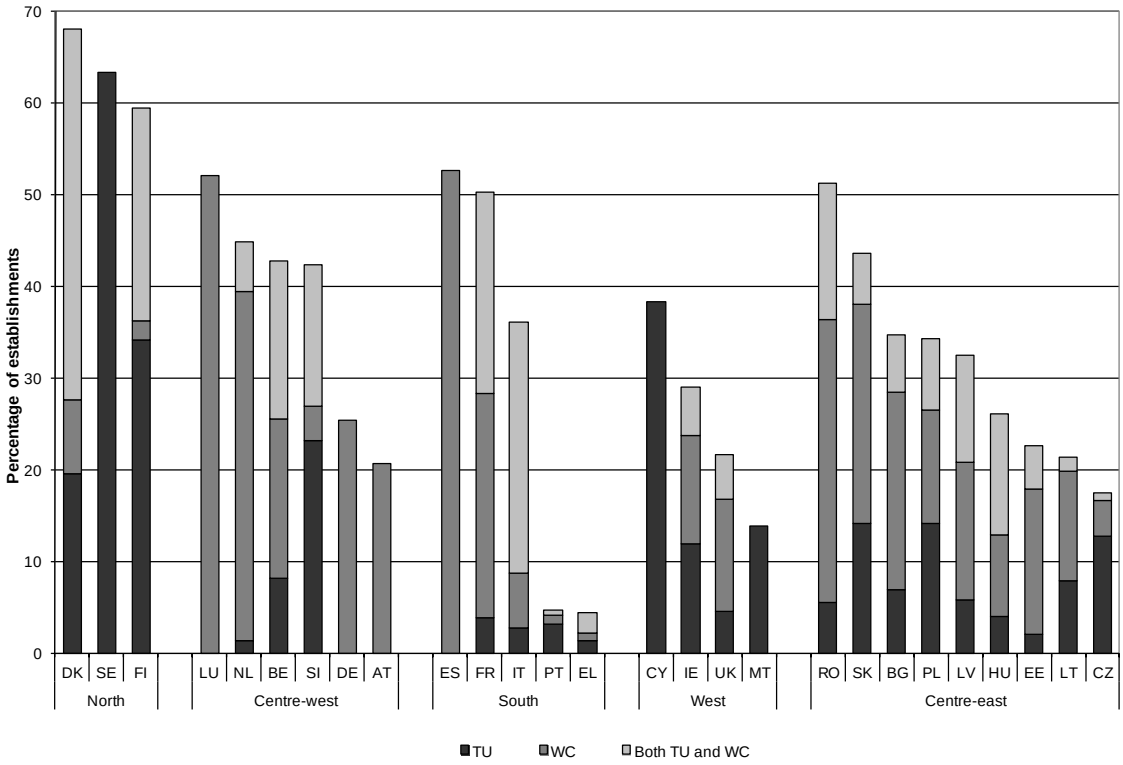
Figure 1: Incidence and type of workplace representation, by country



Base: all workplaces with 10+ employees

Source: ECS 2009

Figure 2: Incidence of workplace representation, by country within IR regime

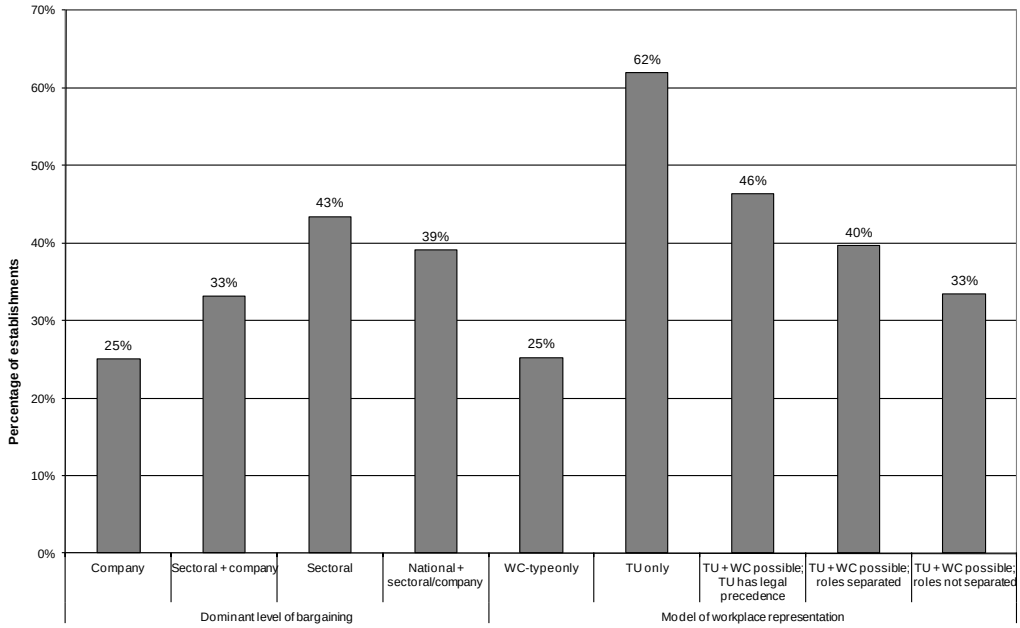


Base: all workplaces with 10+ employees (EU27 countries only)

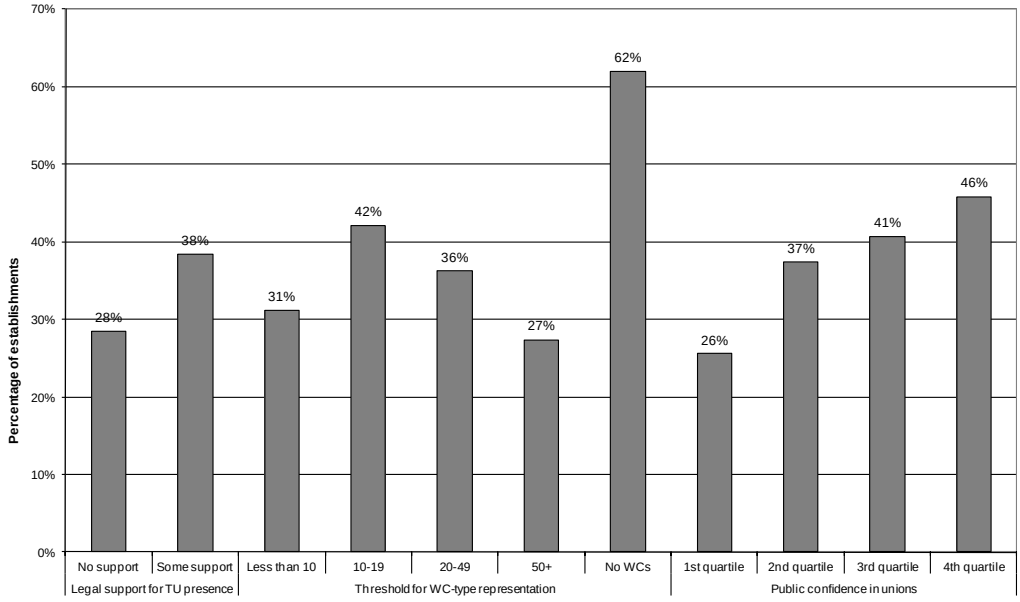
Source: ECS 2009

Figure 3: Incidence of workplace representation, by features of the IR regime

Part A: Dominant level of bargaining and Model of workplace representation



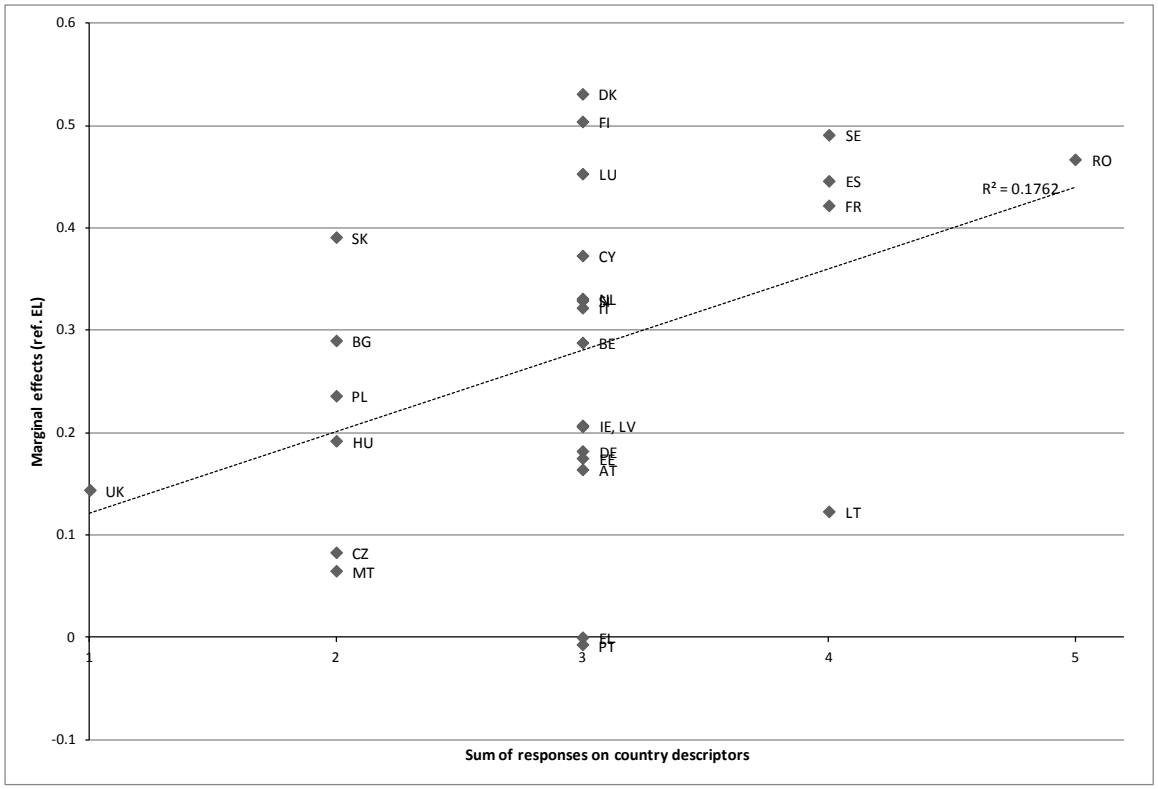
Part B: Legislative provisions and public confidence in trade unions



Base: all workplaces with 10+ employees (EU27 countries only)

Source: ECS 2009

Figure 4: Marginal effects from regression analysis, by sum of responses on country descriptors



Base: all workplaces with 10+ employees (EU27 countries only)

Source: ECS 2009

Table 1: Incidence of any workplace representation - association with workplace characteristics

	[M1] Country dummies only		[M2] M1 + workplace characteristics		[M3] M2 + H&S + HR practices	
	MEff	Sig.	MEff	Sig.	MEff	Sig.
Country: EL	ref.		ref.		ref.	
DK	0.634	***	0.535	***	0.440	***
SE	0.590	***	0.494	***	0.462	***
FI	0.554	***	0.511	***	0.418	***
ES	0.479	***	0.451	***	0.372	***
RO	0.472	***	0.469	***	0.382	***
LU	0.471	***	0.456	***	0.450	***
FR	0.464	***	0.427	***	0.448	***
NL	0.414	***	0.331	***	0.300	***
SK	0.396	***	0.390	***	0.352	***
SI	0.380	***	0.330	***	0.307	***
BE	0.374	***	0.292	***	0.264	***
HR	0.369	***	0.323	***	0.329	***
CY	0.338	***	0.377	***	0.340	***
IT	0.316	***	0.329	***	0.259	***
BG	0.308	***	0.294	***	0.256	***
MK	0.306	***	0.253	***	0.288	***
PL	0.293	***	0.235	***	0.225	***
LV	0.285	***	0.208	***	0.196	***
IE	0.246	***	0.215	***	0.166	***
HU	0.218	***	0.191	***	0.158	***
DE	0.210	***	0.189	***	0.114	***
EE	0.183	***	0.177	***	0.106	***
UK	0.170	***	0.150	***	0.116	***
LT	0.165	***	0.124	***	0.085	***
AT	0.155	***	0.167	***	0.122	***
CZ	0.124	***	0.084	***	0.032	
TR	0.116	***	0.080	***	0.085	***
MT	0.093	***	0.067	***	0.078	**
PT	-0.001		-0.004		-0.029	

Continued

Table 1 continued

	[M1] Country dummies only		[M2] M1 + workplace characteristics		[M3] M2 + H&S + HR practices	
	MEff	Sig.	MEff	Sig.	MEff	Sig.
Sector: Wholesale and retail			ref.		ref.	
Manuf and energy			0.066	***	0.061	***
Construction			0.033	**	0.022	
Hotels and restaurants			-0.037		-0.043	*
Transport, storage and comms			0.023		0.019	
Finance			0.158	***	0.135	***
Property and business services			-0.002		0.002	
Public administration			0.142	***	0.156	***
Education			0.218	***	0.218	***
Health and social work			0.137	***	0.137	***
Other services			0.105	***	0.091	***
Type: Single independent			ref.		ref.	
HQ of multi			0.042	***	0.024	*
Branch of multi			0.101	***	0.079	***
Size: 10-19 employees			ref.		ref.	
20-40			0.143	***	0.115	***
50-99			0.320	***	0.266	***
100-149			0.367	***	0.299	***
150-299			0.457	***	0.383	***
300-399			0.552	***	0.478	***
400+			0.596	***	0.513	***
Ownership: Private, 51%+ domestic			ref.		ref.	
Private, 50%+ foreign			0.025		0.018	
Public sector			0.155	***	0.138	***
Org change: Takeover/merger in last 3 yrs			0.042	***	0.028	*
Employment: Stable over last 3 years			ref.		ref.	
Increasing			-0.039	***	-0.046	***
Decreasing			0.055	***	0.038	***
Gender: Workforce 60%+ female			-0.028	**	-0.027	**
Skill: Workforce 80%+ high-skilled			-0.032	**	-0.042	**
Contracts: Workforce 40%+ fixed-term			-0.067	***	-0.063	***
Nightwork: Some			0.026	**	0.018	
H&S representation: Some					0.166	***
Teamworking: None					ref.	
Semi-autonomous teams					-0.032	**
Non-autonomous teams					0.001	

Continued

Table 1 continued

	[M1] Country dummies only		[M2] M1 + workplace characteristics		[M3] M2 + H&S + HR practices	
	MEff	Sig.	MEff	Sig.	MEff	Sig.
Workers paid by PRP: None					ref.	
Less than 50%					0.029	**
50-100%					0.030	**
Periodic check on training needs: Yes					0.055	***
Any off-job training in last year: Yes					0.018	*
Workers with flexible hours: None					ref.	
Less than 50%					0.010	
50-100%					0.020	*
HR innovation: Some in last 3 years					0.027	***
Economic situation of w/p: Neither good nor bad					ref.	
Very/quite good					-0.021	**
Very/quite bad					0.027	*
Pseudo-R2	0.081		0.252		0.292	
Obs	25860		25860		23819	

* p<0.10, ** p<0.05, *** p<0.01

Base: all workplaces with 10+ employees

Source: ECS 2009

Table 2: Incidence of workplace representation - association with country characteristics

	[1] Regime + workplace characteristics		[2] Barg. level + workplace characteristics		[3] Model + workplace characteristics		[4] Leg. + workplace characteristics		[5] Conf. + workplace characteristics		[6] All + workplace characteristics	
	MEff	Sig.	MEff	Sig.	MEff	Sig.	MEff	Sig.	MEff	Sig.	MEff	Sig.
IR regime: West	ref.											
North	0.351	**										
Centre-west	0.062	*										
South	0.200	**										
Centre-east	0.114	*										
Dominant barg level: Company			ref.									
Sector + company			0.089									
Sector			0.195	**								
National + sector/company			0.101	**								
Model: Roles not separated					ref.							
WC only					-0.089							
TU only					0.208	**						
TU has precedence					0.133							
Roles separated					0.033							
Leg. support for TU presence: Some							0.129	*				
WC threshold (employees): 50 or more							ref.					
20-49							0.145					
10-19							0.167	***				
Less than 10							0.125					
No WC representation							0.269	***				
Public confidence in TUs: Bottom quartile									ref.			
Second quartile									0.103			
Third quartile									0.133			
Top quartile									0.145	**		

Continued

Table 2 continued

	[1] Regime + workplace characteristics		[2] Barg. level + workplace characteristics		[3] Model + workplace characteristics		[4] Leg. + workplace characteristics		[5] Conf. + workplace characteristics		[6] All + workplace characteristics	
	MEff	Sig.	MEff	Sig.	MEff	Sig.	MEff	Sig.	MEff	Sig.	MEff	Sig.
Dominant barg level: Above company											0.181	**
Model: TU preferred											0.032	
Leg. support for TUs: Some											0.167	**
WC threshold: Below 50 emps											-0.031	
Confidence in TUs: 2nd-4th quartile											0.099	**
Workplace characteristics	Yes		Yes		Yes		Yes		Yes		Yes	
Pseudo-R2	0.197		0.186		0.181		0.196		0.178		0.213	
Obs	23420		23420		23420		23420		23420		23420	
* p<0.10, ** p<0.05, *** p<0.01												

Base: all workplaces with 10+ employees (EU27 countries only)

Source: ECS 2009

Table 3: Incidence of TU or WC representation – the role of competition

	[1] Any TU/WC		[2] Any TU/WC		[3] Any TU		[4] Any TU		[5] Any WC		[6] Any WC	
	Meff	Sig.	Meff	Sig.	Meff	Sig.	Meff	Sig.	Meff	Sig.	Meff	Sig.
Ln(Price-cost margin)	0.020				0.034	***			-0.001			
Price-cost margin: 0-8%			ref.				ref.				ref.	
9-15%			0.027				0.013				-0.008	
16-24%			0.056	***			0.053	***			0.000	
25%+			0.036				0.032				-0.008	
Pseudo-R2	0.248		0.248		0.409		0.401		0.341		0.338	
Obs	17266		17382		12120		12234		12120		12234	

All models employ our baseline specification, controlling for workplace characteristics + country

* p<0.10, ** p<0.05, *** p<0.01

Base: all private sector workplaces with 10+ employees (excluding countries where EUKLEMS data on industry price-cost margin not available)
Source: ECS 2009

Table 4: Association between presence of TU/WC representation and behavioural outcomes

	[1] Strained climate		[2] Low motivation		[3] Staff retention problems	
	MEff	Sig.	MEff	Sig.	MEff	Sig.
Any TU/WC representation: Yes	0.048	***	0.004		-0.013	
Pseudo-R2	0.177		0.094		0.068	
Obs	23727		23335		23712	
Any TU/WC representation: No	Ref.		Ref.		Ref.	
TU only	0.018		0.010		-0.002	
WC only	0.011		0.012		-0.020	
TU and WC	0.031	**	0.020		-0.038	***
Pseudo-R2	0.180		0.066		0.075	
Obs	16278		15952		16244	

All models employ control variables in Model 3 of Table 2.
* p<0.10, ** p<0.05, *** p<0.01

Base: all workplaces with 10+ employees
Source: ECS 2009

Appendix A: Eligible Forms of Trade Union and Works Council Representation

The table below indicates, for each country in ECS(2009), those forms of trade union and works council representation that are both: (i) observed in ECS(2009); and (ii) included within our measure identifying the presence of workplace representation. The final column in the table specifies whether union or works council representatives were prioritized when seeking an employee representative interview; the figure following the table shows the composition of the weighted sample of employee representatives who provided an interview.

In some cases, ECS interviews were conducted in multiple languages within a single country (as in Belgium); in these cases the different translations are each presented in the table and separated by a forward slash (/). For countries which have more than one eligible type of works council representation (as in Austria), the different types are written on separate lines.

ECS(2009) inadvertently included within its categorization of works-council type representation some bodies which we deem ineligible, either because they are ad hoc bodies, health and safety committees or European Works Councils. We exclude the following from our classification (and the table below):

- Belgium: Comité voor Preventie en Bescherming op het Werk/Comité pour la Prévention et la Protection au Travail
- Germany: Runder Tisch oder Betriebsausschuss and Belegschafts- oder Mitarbeitersprecher
- Latvia: Euroopa Töönõukogu in Estonia, and Darba padome/Совет рабочих.

For Italy, we classify Rappresentanza Sindacale Unitarias (RSUs) and Rappresentanza Sindacale Aziendales (RSA) as works councils even though there is a high level of union involvement.

These departures from the categorisation used in the survey interview mean that we depart in some small ways from the classification used by Aumayr et al (2011a).

Table A.1: Eligible forms of Trade Union and Works Council representation

	Trade union representation	Works councils representation
Austria		Betriebsrat Personalvertretung
Belgium	Syndicale Delegatie / Délégation Syndicale	Ondernemingsraad / Conseil d'Entreprise Bijzonder Onderhandelingscomité of basisonderhandelingscomité / Comité de negociation particulier ou de base Bijzonder Overlegcomité of Basisoverlegcomité / Comité de concertation particulier ou de base
Bulgaria	Синдикална организация	Представители за информиране и консултиране на работниците и служителите
Czech Republic	Odborová organizace	Rada zaměstnanců
Cyprus	Συνδικαλιστική Εκπροσώπηση	
Denmark	Tillidsrepræsentant	Samarbejdsudvalg MED-udvalg
Germany		Betriebsrat Personalrat
Estonia	Ametiühing / Профсоюз	Töötajate usaldusisik / Доверенное лицо работников
Greece	Επιχειρησιακό σωματείο	Συμβούλιο εργαζομένων
Finland	Ammattiosasto ja tai luottamusmies / Fackavdelning och eller den fackliga förtroenderpraesentan-ten	YT-toimikunta / Förhandlingsorgan för Samarbetsförfarandet
France	Délégué syndical	Délégué du personnel Comité d'entreprise
Hungary	Szakszervezet (bizalmi)	Üzemi megbízott illetőleg Üzemi tanács Közalkalmazotti képviselö illetőlegKözalkalmazotti Tanács
Ireland	Workplace union representative	Statutory employee representative forum
Italy	Organizzazione sindacale	Rappresentanza sindacale unitaria (RSU) Rappresentanza sindacale aziendale (RSA)

	Trade union representation	Works councils representation
Latvia	Arodbiedrība / профсоюз	Darbinieku pilnvarotie pārstāvji / Уполномоченные представители рабочих
Lithuania	Profesinė sąjunga	Darbo taryba
Luxembourg		Comité mixte de enterprise / Comité mixte vum Betrib Délégation du personnel / Personaldélégatioun
Macedonia	Shoqatë sindikale / Синдикална организација	
Malta	Organizzazzjoni trejdjunjonistika rikonoxxuta fuq ix-shop floor / Shop steward (recognized union representative)	
Netherlands	Bedrijfsledengroep	Personeelvertegenwoordiging of Ondernemingsraad
Poland	Zakladowa organizacja zwiazkowa	Rady pracowników Przedstawiciele załóg w radach nadzorczych
Portugal	Um delegado sindical ou uma Commissao sindical	Comissão de Trabalhadores (CT)
Romania	Sindicat	Reprezentanţii salariaţilor
Slovenia	Sindikalnega zaupnika oziroma predsednika sindikata	Delavskega zaupnika oziroma svet delavcev
Slovakia	Základná organizácia odborového zväzu	Zamestnanecký dôverník resp Zamestnanecká rada
Spain		Delegado de personal o Comité de empresa Delegado de personal o Junta de personal"
Sweden	Facklig förtroendeman	
United Kingdom	Recognised shop floor trade union representation	Joint consultative committee Employee forum or equivalent body
Croatia	Sindikat	Radničko vijeće Predstavnik Radnika u Nadzornem odboru
FYROM	Shoqatë sindikale / Синдикална организација	
Turkey	İşyerinizce tanınan bir çalışan sendikası temsilciliği	

Appendix B: Country-Level Values on External Data Items

The table below indicates the values taken by each individual EU27 country on the descriptive country-level variables. A key and a list of sources are provided at the end of the table.

Country	[1] Regime	[2] Dominant level of bargaining	[3] Model of workplace representation	[4] Legislation to support union presence	[5] Minimum size of undertaking to trigger WC-type representation	[6] Public confidence in unions (quartile)	[7] Count variable	[8] WC reps have right to paid time off	[9] TU reps have right to paid time off
BE	Centre-West	4	4	Yes	100	3	3	Yes	Yes
BG	Centre-East	3	4	No	20	1	2	Yes	Yes
CZ	Centre-East	2	4	No	25	1	2	Yes	Yes
DK	North	2	5	No	35	4	3	Yes	Yes
DE	Centre-West	2	1	No	5	2	3	Yes	N/A
EE	Centre-East	1	5	Yes	1	3	3	Yes	Yes
IE	West	4	5	No	15	4	3	No	No
EL	South	3	5	Yes	20	1	3	Yes	No
ES	South	3	5	Yes	6	2	4	Yes	Yes
FR	South	2	4	Yes	11	3	4	Yes	Yes
IT	South	3	5	Yes	16	1	3	Yes	No
CY	West	2	2	No	N/A	2	3	N/A	Yes
LV	Centre-East	1	5	Yes	5	4	3	No	No
LT	Centre-East	1	3	Yes	21	4	4	Yes	No
LU	Centre-West	2	1	No	15	4	3	Yes	N/A
HU	Centre-East	2	4	No	15	1	2	Yes	Yes
MT	West	1	3	No	50	3	2	Yes	No
NL	Centre-West	3	5	No	10	4	3	Yes	No

Continued

Country	Regime	[1] Dominant level of bargaining	[2] Model of workplace representation	[3] Legislation to support union presence	[4] Minimum size of undertaking to trigger WC-type representation	[5] Public confidence in unions (quartile)	[6] Count variable	[7] WC reps have right to paid time off	[8] TU reps have right to paid time off
AT	Centre-West	2	1	No	5	2	3	Yes	N/A
PL	Centre-East	1	4	Yes	50	2	2	Yes	Yes
PT	South	2	5	No	1	3	3	Yes	Yes
RO	Centre-East	2	3	Yes	20	2	5	Yes	Yes
SI	Centre-West	4	5	No	21	4	3	Yes	No
SK	Centre-East	3	4	No	50	2	2	Yes	Yes
FI	North	3	5	No	20	4	3	Yes	Yes
SE	North	3	2	Yes	N/A	2	4	N/A	Yes
UK	Centre-West	1	5	Yes	50	1	1	Yes	Yes

N/A: Not applicable because the type of representation covered by the indicator is not found at workplace level in the specific country

Key:

Dominant level of bargaining:

1. Local or company bargaining
2. Sectoral or industry level, with additional local or company bargaining
3. Sectoral or industry level
4. National level, with additional sectoral/local or company bargaining

Model of workplace representation:

1. WC-type representation only
2. TU representation only
3. TU + WC both possible, but TU has legal precedence
4. TU + WC both possible; roles separated in law to some degree
5. TU + WC both possible; roles not separated in law

Public confidence in trade unions:

1. Country is in bottom quartile
2. Country is in second quartile
3. Country is in third quartile
4. Country is in top quartile

Count variable: Counts one for each of the following:

- Dominant level of bargaining = Above company-level
- Model of representation = TU only or TU given precedence
- Legislative support for union presence = Some
- Threshold for WC-type representation = Below 50 employees
- Public confidence in unions = 2nd, 3rd or 4th quartile

Sources:

[1] Table 2.2 in European Commission (2009)
[2] Variable LEVEL in ICTWSS database (Visser, 2009b)
[3] Fulton (2010)
[4] Fulton (2010)
[5] Fulton (2010)
[6] Authors' calculations from European Values Survey

[7] Authors' calculations
[8] Fulton (2010) and Calvo et al (2008)
[9] Fulton (2010)