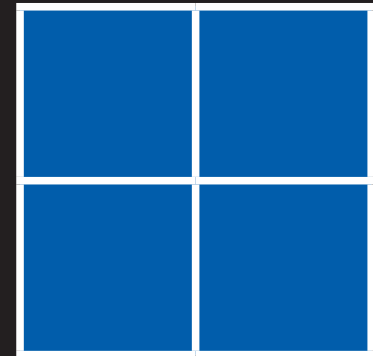


# Production Regimes, Employee Job Control and Skill Development

Duncan Gallie

LLAKES Research Paper 31



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LLAKES is an ESRC-funded Research Centre - grant reference RES-594-28-0001.

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# **Production Regimes, Employee Job Control and Skill Development**

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**September 2011**

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## Country Abbreviations

AT	Austria
BE	Belgium
BG	Bulgaria
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
ES	Spain
FI	Finland
FR	France
GB	Great Britain
GR	Greece
HU	Hungary
IE	Ireland
IT	Italy
LU	Luxembourg
LV	Latvia
NL	Netherlands
NO	Norway
PL	Poland
PT	Portugal
RO	Romania
SE	Sweden
SK	Slovakia
SL	Slovenia

## **Introduction**

In the last decade, there has been growing recognition by European policy makers of the importance of the involvement of employees in decision-making and the provision of opportunities for skill development. This reflects concern to ensure the skills and motivation required by the growth of a 'knowledge-based' economy. It has been reinforced by an awareness that the objective of increasing employment levels is likely to be contingent upon people's experience of the quality of their work and a continuing updating of their skills. It is also a response to the growing evidence that employees' ability to control their work is linked to both psychological and physical health and, by extension, has important implications for work productivity through its effects on absenteeism and sickness rates (Chandola, 2010).

It is a view that could draw on a long theoretical tradition emphasizing 'autonomy' in decision making and skill enrichment as the two factors central to an individual's capacity for self-realisation. But it could also draw support from a significant body of research – in particular by sociologists and social psychologists.

A wide range of studies have confirmed the importance of employees' influence at work for their job satisfaction, their work motivation and their commitment to the organization for which they work ( Blumberg, 1968; Warr, 1987; Meyer & Allen, 1997; Heller et al, 1998; Zhou, 2009). Indeed, involvement in decision-making at work has been shown to have important implications for people's ability to take initiative in their lives out of work (Kohn and Schooler, 1983). A more recent development has been the growing awareness of its importance for psychological and physical health. This has been linked to the way it mediates work pressure. At similar levels of work pressure, those who can exercise control at work have been found to be less likely to experience psychological distress. It is when high work pressure is combined with low control that the risks to employee health are most acute (Karasek and Theorell, 1990). Indeed, a number of longitudinal studies have shown this raises substantially the risks of coronary disease and

mortality (Johnson and Johannsen, 1991; Theorell and Karasek, 1996; Theorell, 2007; Marmot, 2004; Chandola et al, 2006; Marmot, 2010).

Similarly, there also has been a substantial literature underlining the importance of skill development for employee well-being. In the early literature this was seen as rooted in childhood and early adult socialization experiences, which in contemporary societies are premised on the importance of individual self-development and reinforce its value through the successive phases of education. Given rising education levels and the strong links between educational attainment and further training, it can be anticipated that learning opportunities will become increasingly important to people's satisfaction with their work. More recently the issue has been given new impetus by the view that advanced Western economies are becoming increasingly dependent on a highly skilled workforce. In some accounts this has been linked to the growing role of information and computer technologies that have accelerated the pace of product and technical change (Castells and Aoyama, 1994; Aoyama and Castells, 2002). The combination of a higher skill level of jobs and more rapid change creates a need for continual improvement in skills. Moreover, the flexibility of new technologies allows organizations to develop processes that are adapted to their own needs and hence requires a capacity to build firm- specific skills in the workforce. The concomitant of a successful high skilled economy is frequently thought to be the increased prevalence of 'learning organisations' where the acquisition and updating of skills is an ongoing process (Rodrigues, 2002, 2003; Conceicao et al, 2003).

A central issue, then, is the nature of the social conditions that are most favourable to greater employee job control and skill development. Here research knowledge is much weaker. An important recent development has been the elaboration of theories that argue that there can be quite distinctive institutional arrangements in capitalist societies, involving different capacities for coordination and leading to differences with respect to the sophistication of production techniques, the skill level of the workforce and the quality of social relations with the workplace. This has been variously termed 'Variety of Capitalism' or 'Production Regime' theory. The latter description captures better the specificity of the argument and will be the principal term used in this paper.

This paper sets out to examine how far such arguments can draw support from cross-national empirical evidence. The first section describes the emergence of this new theoretical perspective and outlines its key tenets. The second looks at some of the critical discussion of its claims about the similarity or dissimilarity of particular groups of countries and considers some contrasting arguments about the key sources of differentiation between capitalist societies – in particular the employment regime perspective. The third examines the evidence about macro-institutional differences in industrial relations that are thought to structure differences in the dynamics of capitalist regime. The fourth takes up the issue of how well the diverse perspectives can account for differences in involvement in decision-making at work, while the fifth extends the discussion to the issue of skill development.

### **Common Structural Trends or Distinct Production Regimes?**

Although there is very wide consensus about the importance of job control and learning for employee well-being, there has been divergence in the literature about the factors that promote or undermine them. Prior to the 1990s, the dominant accounts of change in the quality of work emphasized long-term structural trends that were viewed as common to advanced capitalist societies.

The liberal theorists of industrialism underlined a universal trend for the growing complexity of technologies and rising level of skills as the main sources of change (Kerr et al, 1960, Blauner, 1964). The growing requirement for higher and more specialized skills, it was suggested, provided a strong incentive for employers to adopt more participative practices that would motivate employees and develop consensual rather than conflictual relations in the workplace. The terms of employment would be increasingly established through joint regulation between representatives of employees, employers and the state. Neo-marxian theorists on the other hand saw a scenario in which an ever more detailed division of labour undermined employee skills reduced their discretion over the way they carried out their work and reinforced managerial control of the work process (Friedmann, 1946; Braverman, 1974; Crompton and Jones, 1984).



An important development in the course of the 1990s was a challenge to the assumption that capitalist societies were driven by a common logic. Perhaps the most influential early contribution was Esping-Andersen's (1990) argument that there were three worlds of welfare capitalism that had quite distinctive institutional characteristics. With respect to the labour market and workplace relations, however, the most systematic theoretical development came from the 'Varieties of Capitalism' perspective developed by David Soskice and Peter Hall. They argued that the productive systems of capitalist societies could take quite different forms, characterized by different modes of coordination and different systems of skill formation. In particular, they distinguished between two types of regime – liberal market economies (LMEs) on the one hand and coordinated market economies (CMEs) on the other. As Hall and Soskice (2001:19) put it: 'Nations with liberal market economies tend to rely on markets to coordinate endeavors in both the financial and the industrial relations systems, while those with coordinated market economies have institutions in both spheres that reflect higher levels of non-market coordination'. An important difference from earlier theories of variation in capitalist societies is that, whereas welfare state theorists had placed a strong emphasis upon the degree of coordination and strength of organized labour, production regime theorists saw employer strategies and coordination capacities as the prime mover in the development of institutional structures.

The scope of the theory embraced a wide range of institutional domains – societies were held to be more or less coordinated with respect to industrial relations, skills formation, corporate governance, inter-firm relations and workplace relations. The principal focus here is on the argument that the nature of the production regime has a major impact on the quality of workplace relations, in particular through its implications for patterns of labour market regulation and of skill formation.

The theoretical starting point of production regime theory is the extent to which labour markets are regulated through employer coordination. This built upon the earlier tradition of 'corporatism' but it differed in an important way. Theorists of corporatism had tended to stress the degree of institutional centralization in decision making between the major economic partners (e.g. Schmitter and Lehmbruch, 1979). The concern was particularly with the role and authority in bargaining of the 'peak' organizations of employers and unions and hence the prevalence of

formal economy wide bargaining. In contrast, production regime theory underlined the need for a more encompassing concept of coordination as the key to understanding the contrasting dynamics of national industrial relations systems. The point was persuasively developed by David Soskice (1990) in his paper 'Wage Determination: The Changing Role of Institutions in Advanced Industrial Societies'. 'The problem which arises' he argued 'is that less centralized systems (at least on a formal level) may in fact be highly coordinated'. Centralization is certainly one of the mechanisms that can produce coordination, but there are others as well. It may be produced by powerful coordinated employer organizations and networks (as for instance in Switzerland and Japan) or through tacit coordination across industries on the part of employers and unions (as in Germany and the Netherlands) or through the powerful lead of public sector wage-setting as in France. The essential point is that the level of coordination may be quite different from the formal level at which bargaining takes place.

More coordinated employer action, it was argued, make it possible to adopt long-term strategic policies, in which investments in both material and human capital can play a bigger role. In contrast to liberal market economies, which rely on standardized mass production, coordinated economies tend to focus upon production through more advanced technologies that permit 'diversified quality production' (Streeck, 1992). At the same time, they give a high priority to the development of a more skilled workforce, with strong initial vocational training and specialized skills that are both industry and firm specific. Higher and more specialized skills are in turn thought to affect the quality of workplace relations.

The argument was reminiscent of that developed by the earlier liberal theorists of industrialism, except that this was now viewed as the pattern characterizing a specific form of capitalist society rather than as the necessary developmental path of all capitalist societies. Higher skills were seen as encouraging the devolution of decision making responsibilities to employees (since they possessed the relevant knowledge), supporting the development of more cooperative industrial relations with a more prominent role for employee representatives and greater employment security (Soskice, 1999). The notable points with respect to the central issues we are concerned with is that coordinated market economies were thought to provide the conditions for greater

employee involvement in decision making at work and for better opportunities for skill acquisition than was the case in the liberal market economies.

### **Critical Perspectives: Countries and Regimes**

The early literature on production regimes focused upon a relatively small number of countries that approximated most closely to the ideal typical patterns of coordinated and liberal market economies. Among European countries, Hall and Soskice place Britain and Ireland as closest to the notion of a liberal market economy, while the Nordic countries Germany, Switzerland, the Netherlands, Belgium and Austria were taken as the exemplars of coordinated market economies. The Nordic and Continental coordinated societies were seen as having originally been distinct, with the Nordic countries representing a centralized egalitarian model of coordination and the Continental countries a flexibly coordinated model based upon industrial sector coordination. But the two forms were thought to have converged over the 1990s into a single flexibly coordinated model. The position of other countries in terms of coordinated-liberal market economy framework is less than clear. France, Italy, Spain, Portugal, Greece and Turkey are described as being in 'more ambiguous positions' (Hall and Soskice, 2001:21).

There has been considerable debate about the empirical adequacy of this categorization in accounting for the types of factors that theorists of Varieties of Capitalism are concerned to explain – for instance the nature of skill formation systems for younger people, the extent of provision of continuing training and the quality of work (Crouch and Finegold, 1999; Gallie, 2007b, Busemeyer, 2009). Criticism has also focused on the postulated similarity of the Nordic and Continental countries and on the problems surrounding the location in the schema of other European countries. Gallie (2007a) has argued that the theoretical account provided in production regime theory underestimates the importance of differences in the employment relationship resulting from the policy orientation and the institutional structure of industrial relations. The welfare state literature, with its emphasis on power resources, had embraced at least an implicit conception of different employment regimes, in which the institutions of joint regulation and hence employment policies were more or less inclusive of the workforce. He suggested it was possible to distinguish between an inclusive employment regime where organized labour has a

strong institutionalized participation in decision making and where policies are designed to extend both employment and employee rights as widely as possible through the population of working age; dualistic regimes where the involvement of organized labour in decision making tends to be primarily consultative and where a core workforce will tend to be privileged in terms of employment rights; and market based regimes where employment levels and job rewards are primarily left to the market and organized labour has a relatively marginal role. The principal implication of this is that one would expect the Nordic societies, which are closer to the inclusive employment regime model, to remain distinct in terms of the quality of work from the Continental Coordinated societies, which are closest in their pattern of employment regulation to the dualistic regime model.

A similar point was developed by Edlund and Grönlund (2008) in their analysis of the implications of patterns of coordination for continuing training. They argued for the distinction between two types of coordinated 'labour market' regime 'Nordic' and 'Continental' on the grounds that deliberative institutions play a larger role in the former and this may affect skill formation. Deliberative institutions encourage actors to engage in collective discussions and reach agreements. The most conspicuous deliberative institution, they suggest, is collective bargaining. They argue that the extent to which regulation is established through collective bargaining will affect the quality of employment protection and the portability of skills. Where employment protection is negotiable, unions may strive for long term employment security by strengthening the employability of their members, pushing for life long learning provision, greater investment in active labour market policies for those who lose their jobs and a greater emphasis on the portability of skills in the system of skill formation.

Iversen and Stephens (2008) have also questioned the adequacy of the original classification for accounting for patterns of early human capital formation. They argue for the need for a synthesis between power resource theory and production regime theory, in which more egalitarian coordinated systems, reflecting stronger influence of social democracy over the political process, generate a combination of high general and strong vocational training that is particularly advantageous for the less advantaged, whereas less egalitarian coordinated systems lead to

greater social polarization with respect to general education. They argue for retaining a distinction between the Nordic and Continental Coordinated systems.

Less commented upon, but equally problematic, is the classification of Ireland as one of the exemplars of a liberal market regime. It is quite clearly allocated to the liberal regime category in the classifications by Hall and Soskice (2001), Edlund and Grönlund (2008) and the European Commission (2009). But, as Soskice (1999) had recognized earlier, it fits rather poorly in terms of its highly centralized collective bargaining system.

Perhaps the most unfortunate characteristic of the original schema was that it covered so few countries. There have been attempts, however, to extend its range. In an early paper on patterns of wage bargaining coordination (Soskice, 1990) depicted Italy and France as intermediate between Continental coordinated countries and liberal economies such as the UK and later, underlining the complexity of its location, he referred to France as a ‘state-business-elite coordinated –market economy’ (Soskice, 1999:2003). This idea was later developed by Hall and Soskice (2001) into a tentative concept of a ‘Mediterranean’ type of capitalism – marked by ‘a large agrarian sector and recent histories of extensive state intervention that have left them with specific kinds of capacities for non-market coordination in the sphere of corporate finance but more liberal arrangements in the sphere of labor relations’ (Hall and Soskice, 2001:21). Edlund and Grönlund (2008) also propose a grouping of ‘Mediterranean’ countries – whose distinguishing features are ‘the very active role played by the state and the weak and rather militant unions.’ Coordination in these countries, it is suggested, is achieved through national legislation, rather than through agreements between labour and management’ (Edlund and Grönlund, 2008: 251). Rather similarly, a presentation of the regime types by the European Commission (2009: 49) proposes a category of state coordinated economies – the ‘State Coordinated Market Economy’ - which includes, together with France, the Southern European countries – Greece, Spain, Italy and Portugal. Green and his colleagues (Green et al, 2009; Green and Janmaat, 2011) have confirmed the distinctiveness of the Southern group of European countries from the Continental social market countries cross a wide range of indicators of institutional structure and culture.

The allocation of the new member states within the schema is also troublesome. For Edlund and Grönlund (2008) ‘most of these appear to be liberal, with low tax levels and small public sectors’. Union density is also relatively low and most bargaining is carried out at company level. But they are distinctive from the Western liberal model in their low GDP and relatively rigid business regulation. A similar note of hesitation is evident in the European Commission’s classification, which describes them as ‘State Coordinated or liberal?’ (sic).

### **Country Groups, Bargaining Coordination and Inclusiveness**

In order to assess the usefulness of these different typologies, there are clearly advantages in keeping a relatively differentiated initial classification to allow an empirical assessment of the distinctiveness or commonality of country groups. In the subsequent discussion then we retain the country categorization shown in Table 1. The notion of a liberal regime is common to all perspectives – the main difference here is that Ireland is excluded, leaving Britain as the sole exemplar. The Nordic and the Continental Coordinated systems are kept distinct, reflecting the arguments in the employment regime literature and those by some writers within the production regime perspective. Finally, we add the categories of State Coordinated and Transition regime, to see how they compare with the more elaborated regime types.

**Table 1 Countries and Regime Type**

Liberal Market	Nordic	Continental Coordinated	State Coordinated	Transition
UK	Denmark	Germany	France	Czech Republic
	Finland	Belgium	Italy	Estonia
	Norway	Luxembourg	Greece	Latvia
	Sweden	Netherlands	Spain	Hungary
		Austria	Portugal	Poland
		Slovenia		Romania
				Slovakia

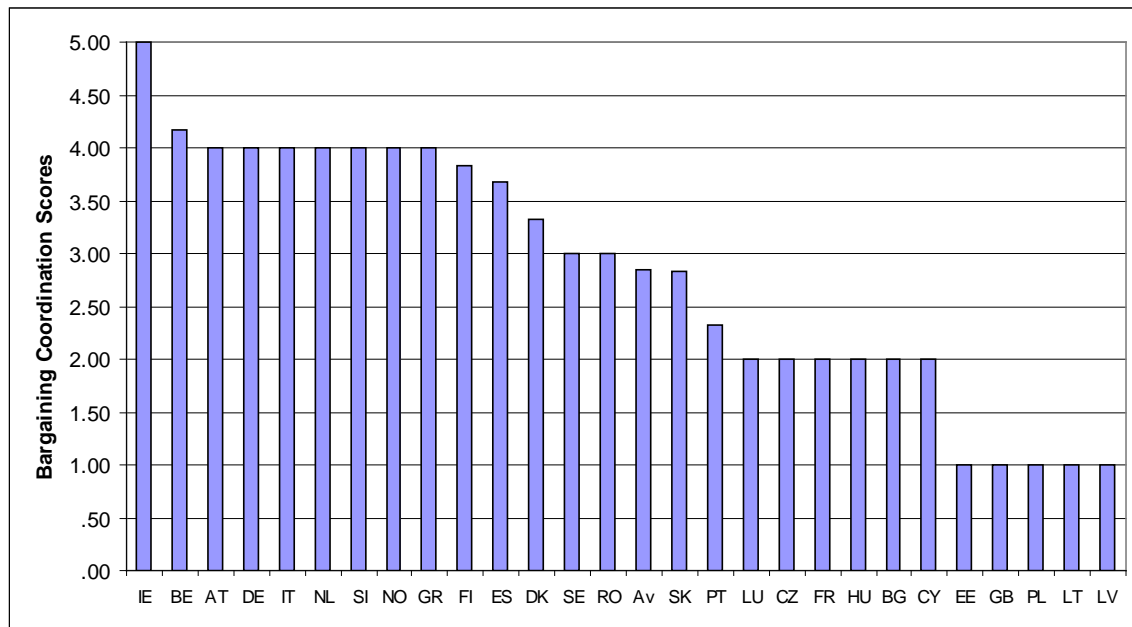
A first issue, given its centrality to the production regime argument, is how the different country groups compare empirically in terms of levels of bargaining coordination. The conceptual move

from the earlier concern with centralization to the wider concept of coordination raised significant difficulties in terms of the operationalization of key institutional differences for empirical analyses. Soskice drew on a detailed but qualitative knowledge of a small number of countries with relatively clear cut patterns of bargaining procedure. But obtaining good and comparable measures of effective bargaining coordination across a wide range of countries was a much trickier process, precisely because it had to take account of tacit understandings. Although Soskice did produce an intuitive scoring for a number of countries, a more systematic attempt to produce a measure that included informal bargaining coordination was provided by Kenworthy (2001). Kenworthy was skeptical about the possibilities of measuring wage coordination practices as such, but opted for a measure based on institutional features that could be predicted to generate greater or lesser coordination. These combined information on the level of bargaining, with the extent of regularized pattern bargaining or bargaining synchronization as a result either of employer coordination or union concentration. The schema allowed then for coordination to be generated by qualitatively different institutional arrangements.

This schema was adopted in a modified form in the ICTWSS Database constructed by Visser (2011). Like Kenworthy's, it distinguishes five levels of coordination:

- 5 = economy-wide bargaining, based on a) enforceable agreements between the central organizations of unions and employers affecting the entire economy or entire private sector, or on b) government imposition of a wage schedule, freeze or ceiling.
- 4= mixed industry and economy-wide bargaining : a) central organizations negotiate non-enforceable central agreements (guidelines) and/or b) key union and employers associations set pattern for the entire economy.
- 3= industry bargaining with no or irregular pattern setting, limited involvement of central organizations and limited freedoms for company bargaining.
- 2= mixed industry- and firm level bargaining, with weak enforceability of industry agreements.
- 1= none of the above, fragmented bargaining, mostly at company level.

**Figure 1 Bargaining Coordination 2000-2005**



Source:

Derived from ICTWSS Database, Version 3.0. <http://www.uva-aias.net/208>. Av=Average of countries in chart.

Figure 1 presents the pattern of bargaining coordination by country, with scores averaged between 2000 and 2005 (years we take because they relate most closely to our survey data on quality of work). It reveals the very wide variations in the degree of bargaining coordination. The production regime literature pointed above all to Germany and the Scandinavian countries as the exemplars of high levels of coordination. As can be seen, Germany, Norway, Finland, Denmark and Sweden are above the EU average. But Ireland and Belgium have the highest scores, while Sweden is only a little higher than the average. Three of the Southern European countries also have relatively high levels of coordination – Italy, Greece and Spain. The low coordination countries are predominantly new member states. They are joined, however, by three countries in the EU-15 – Portugal, France and most particularly Britain.

Taking the patterns for the overall clusters of countries by regime (Table 2), there is support for the broad distinctions made by Production Regime Theory with respect to levels of bargaining coordination. Countries in the Nordic and Continental Coordinated regime types have the highest average bargaining coordination scores and the scores for the two country groups are very similar. They are followed by countries in the State Coordinated category. The countries in the



liberal market economy regime type have considerably lower scores and those in the transition economies have the lowest coordination scores of all. As was seen earlier, Ireland stands out as the most coordinated country of all with respect to collective bargaining, at the opposite end of the spectrum to Britain. Given the centrality of coordination to the argument, there seems little justification for grouping the two countries into a common regime category. We have then kept Ireland distinct in the analyses.

**Table 2 Bargaining Coordination Scores by Regime Type**

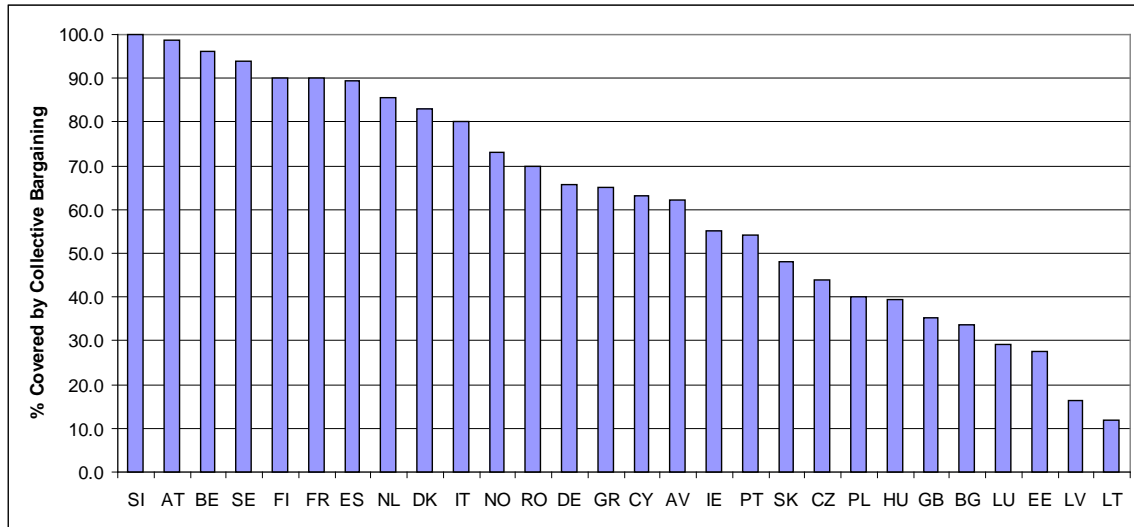
Regime Type	Liberal Market	Nordic	Continental Coordinated	State Coordinated	Transition	Ireland
Average Coordination Score	1.0	3.54	3.70	3.20	1.73	5.0

Source: Derived from ICTWSS Database, Version 3.0. <http://www.uva-aias.net/208>, Visser 2011.

The employment regime perspective places the emphasis not on the level of coordination but on the degree of inclusiveness of the regulative system (Gallie 2007a; European Commission, 2009). Inclusiveness can be seen as involving two principal dimensions – the scope of collective bargaining and its depth. The most direct indicators of inclusiveness are bargaining coverage - the proportion of dependent employees covered by wage bargaining agreements and the level of union density. Bargaining coverage is an indicator of the scope of joint regulation – and implies the prevalence of a norm about its appropriateness. Union density can be considered a proxy of the depth of joint regulation – the extent to which it is likely to involve effective negotiation and to be implemented at workplace level. Visser’s ICTWSS dataset provides an adjusted measure of the bargaining coverage, which removes any groups from the employment count who are formally excluded from the right of bargaining<sup>1</sup>. It represents a measure of how complete coverage is relative to potential coverage. It is taken as reflecting the actual influence of industrial relations regulation (European Commission, 2009: 77) or the extent to which the terms of employment are negotiated by trade unions (European Commission, 2011: 35). The same dataset also includes a measure of union density which is net union membership as a proportion of wage and salary earners in employment. This excludes any union members who are outside the active, dependent and employed labour force – for instance retired workers, independent workers,

students and the unemployed. In both cases, we again take the average over the period 2000 and 2005.

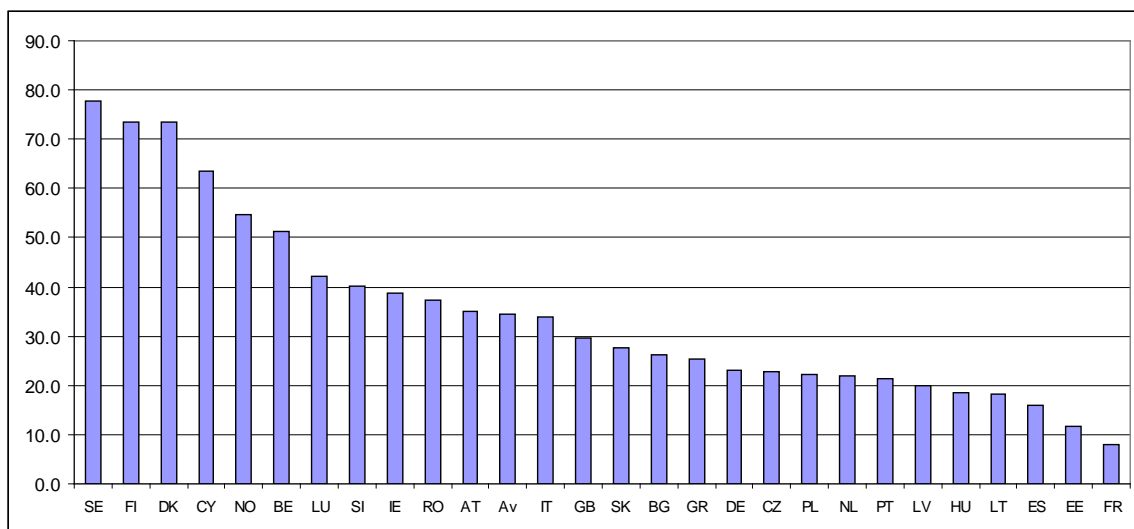
**Figure 2 Collective Bargaining Coverage 2000-2005**



Source:

Derived from ICTWSS Database, Version 3.0. <http://www.uva-aias.net/208>, Visser 2011. Av=Average of countries in chart.

**Figure 3 Trade Union Density 2000-2005**



Note: Source: Derived from ICTWSS Database, Version 3.0. <http://www.uva-aias.net/208>, Visser 2011.  
Av=Average of countries in chart.

The pattern for collective bargaining coverage is broadly similar to that for bargaining coordination, with the EU-15 countries generally higher than average in coverage and the new member states generally lower (Figure 2). Indeed, the overall correlation between bargaining coordination and coverage is 0.75. There are important differences, however, for certain countries. For instance, Ireland ranked very high in terms of coordination, but it is just below average in terms of coverage. Similarly Germany has a relatively high level of coordination, but is close to the average in terms of coverage. Sweden, which is just above average in terms of coordination, comes out as one of the highest in terms of coverage.

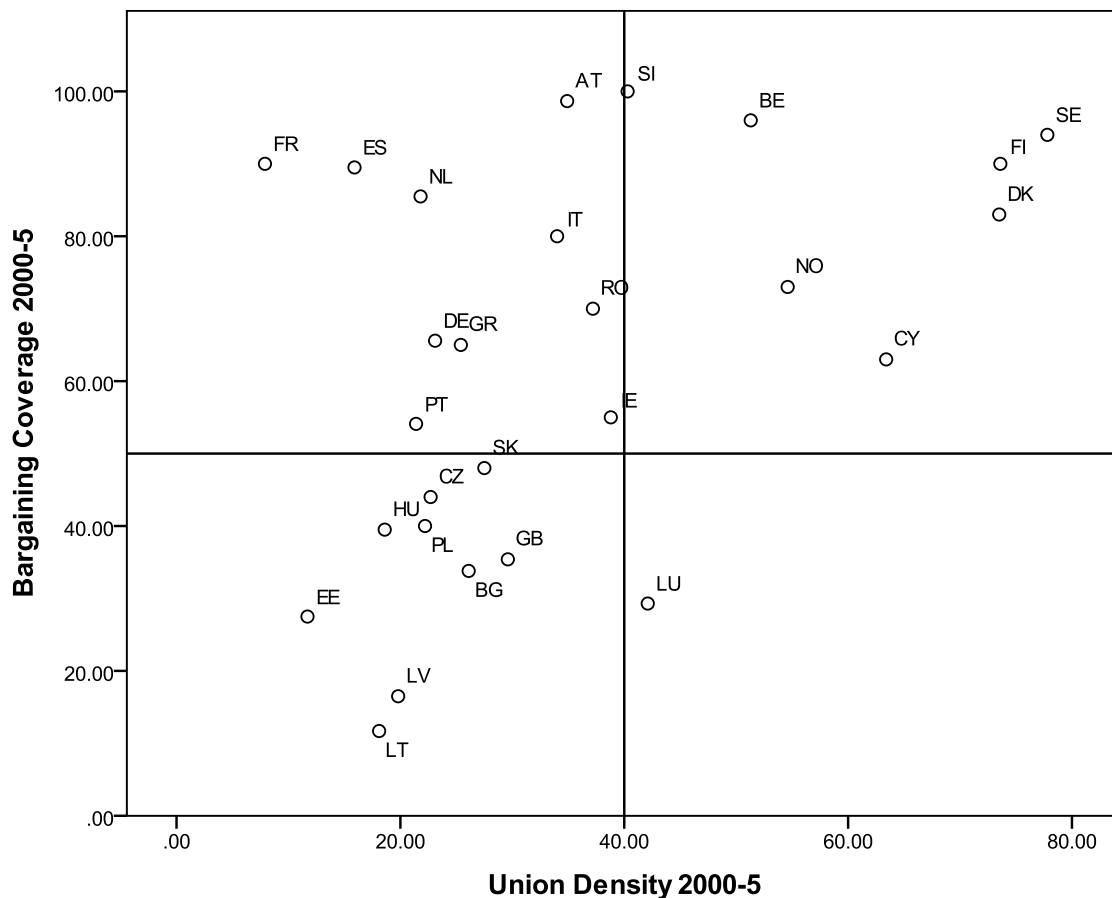
The much bigger difference in pattern is with respect to trade union density. There is a major difference between the Nordic and Continental Coordinated countries. As Figure 3 shows, the Nordic societies stand out in terms of their very high levels of trade union density. In contrast, Germany, Italy, and Spain - which were also high on coordination and coverage - are below average in terms of union density. France is a somewhat idiosyncratic case in that it is relatively low in terms of coordination, high in terms of coverage but low with respect to density.

Union density and bargaining coverage are significantly associated ( $r=0.45^*$ ), but they are at the same time clearly distinct aspects of industrial relations structure, with their own specific dynamics. In part this reflects the fact that high levels of bargaining coverage can arise for rather different reasons. They may reflect pervasive trade union power, but they may also come about where this is absent either because employers are well organized or because of statutory extension procedures whereby the state extends the substance of agreements to employees who were not initially covered.

The relative position of countries with respect to the two dimensions can be seen in Figure 4. Countries cluster in three quite distinct quadrants of the chart. There are those that are inclusive both in terms of coverage and union density (primarily the Nordic countries), those that are inclusive with respect to coverage but not unionism (the Continental Coordinated and Southern European countries) and finally those that have low inclusiveness with respect to both

dimensions (Great Britain and the new member states). The clusters reflect differences in the extent of institutional inclusiveness of joint regulation as distinct from unilateral employer decision-making. They broadly coincide with the three types of employment regime that have been identified – inclusive, dualistic and liberal regimes.

**Figure 4 Country Positions on Bargaining Coverage and Union Density**



Source: Derived from ICTWSS Database, Version 3.0. <http://www.uva-aias.net/208>. Correlation  $r=.45^*$

### **Industrial Relations Structures and Employee Job Control**

In examining the diverse claims of these perspectives with respect to employees' experiences of work, we start with the issue of employee participation in decision-making or job control. This can be approached both through a consideration of formal institutions for employee involvement

and through the perception that employees themselves have of their degree of job control - their ability to influence decisions about their job and work organization.

### *Institutionalization and Works Councils*

An indicator of formal provision for employee participation in the workplace is the presence of some type of representative institution – with powers to negotiate or at least to be consulted over work practices. The ICTWSS Database provides two types of indicators on works councils – first their prevalence and second their rights. The prevalence measure combines the extent to which works councils or equivalent bodies are mandatory or voluntary with a distinction in terms of the proportion of eligible firms that are covered. A score of 2 reflects that they are mandatory (either because of law or agreement between the peak social partners) and they cover 75% of eligible firms, a score of 1 that they are mandatory but fall below 75% coverage and a score of 0 that they are voluntary (or absent) and cover less than 25% of firms with 50 or more employees. The measure of works council rights has a score of 3 for co-decision rights, 2 for major consultation rights, 1 for information rights and 0 where there is no representation.

The average scores for the different regime types, over the period 2000-2005, can be seen in Table 3. The Nordic and Continental Coordinated regimes stand out as having notably higher scores with respect to both prevalence and rights than do other regime types. These are followed by the State Coordinated countries. The liberal market and transition regime countries provide least support for works councils – particularly the transition regime countries with respect to prevalence and Britain (as the exemplar of the liberal market economy) with respect to rights. Ireland, in this case, is relatively close to the pattern for Britain and the transition countries with its virtual absence of works council representation.

**Table 3 Works Council Prevalence and Rights**

Regime Type	Liberal Market	Nordic	Continental Coordinated	State Coordinated	Transition	Ireland
Prevalence	1.20	2.00	2.00	1.60	0.90	0.00
Rights	0.00	2.00	2.33	0.80	0.65	0.00

Source: Derived from data on work councils from ICTWS, Visser, 2011

How do the prevalence and rights of works councils relate to the main dimensions of industrial relations systems discussed earlier? It is notable that the degree of bargaining coordination is significantly associated with the prevalence of works councils, consistent with the expectations of production regime theory (Table 4). But it is one of the dimensions of the institutionalization of joint regulation – bargaining coverage – that is most strongly associated with the proportion of firms with works councils. It should also be noted, however, that union density is very weakly related, suggesting that the presence of works councils does not reflect particular employment regimes.

There is a rather different pattern for the strength of works council rights. These are related to three out of four of the dimensions of collective bargaining structure – centralization, bargaining coordination and bargaining coverage. But union density is again not significantly associated with works council rights.

**Table 4 Bargaining Structures and Works Council Prevalence and Rights**

	WC Prevalence	WC Rights
Centralization of Bargaining	.32	.57**
Bargaining Coordination	.41*	.49**
Bargaining Coverage	.59**	.58**
Union Density	.19	.25

Source: Derived from ICTWSS Database, Version 3.0. <http://www.uva-aias.net/208>

Overall it is bargaining coordination that would seem to provide the strongest leverage in understanding the influence of works councils, with respect to both prevalence and to rights. It is an indicator of the scope of joint regulation – and implies the prevalence of a norm about its

appropriateness. Arguably, it is in cultural contexts where there is a relatively high normative acceptance of joint regulation that works councils are most likely to flourish.

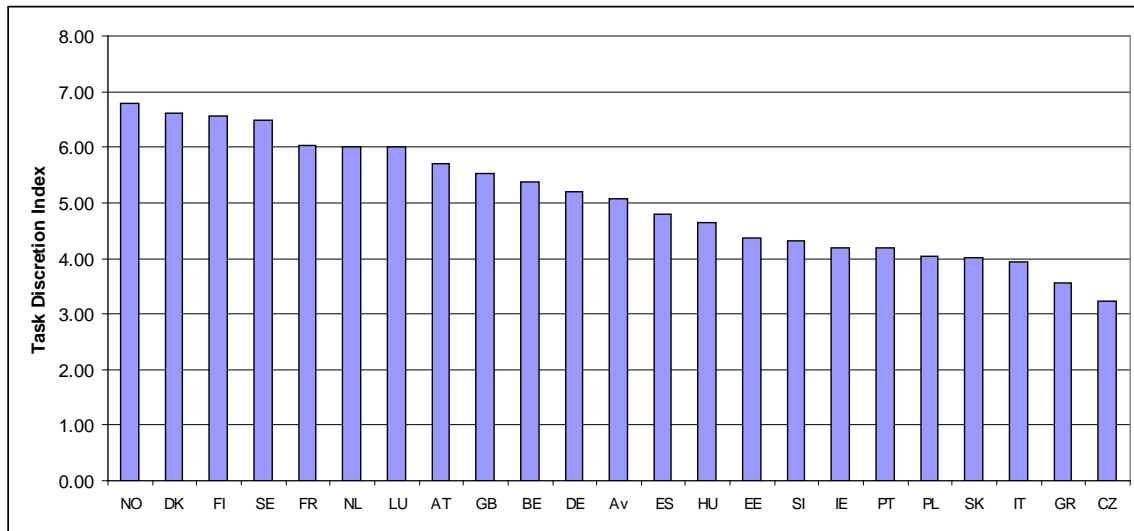
### *Individual Employee Job Control and Control Distance*

The existence of works council representation does not however guarantee that employees will feel a sense of involvement in decision making at work. The powers of works councils tend to be primarily consultative and employers may feel free to ignore their opinion. Even if they are influential, they may come to be dominated by a relatively small number of activists who are increasingly drawn into management's vision of priorities. We need then direct evidence about the extent to which employees feel that they can exercise control over their work environment.

A measure of job control, based on individual employees' own reports, is available in the European Social Survey of 2004. It asks respondents how much 'the management at your work allows you a) to decide how your own daily work is organized; b) to influence policy decisions about the activities of the organization and c) to choose or change your pace of work? Responses were given on a ten point scale, running from 0=I have no influence to 10 'I have complete control'. A summary score was created by averaging the responses to the three items.

As can be seen in Figure 5, there were marked variations between countries in the amount of control that employees felt that they had over their jobs. Job control was highest in the Nordic countries – Norway, Denmark, Finland and Sweden – followed at some remove by France, the Benelux countries and Great Britain. In contrast, most of the Transition countries had levels of job control that were below the average, although they were joined in this by the Southern European countries – Spain, Portugal, Italy and Greece and by Ireland.

**Figure 5 Employee Job Control 2004 by Country**

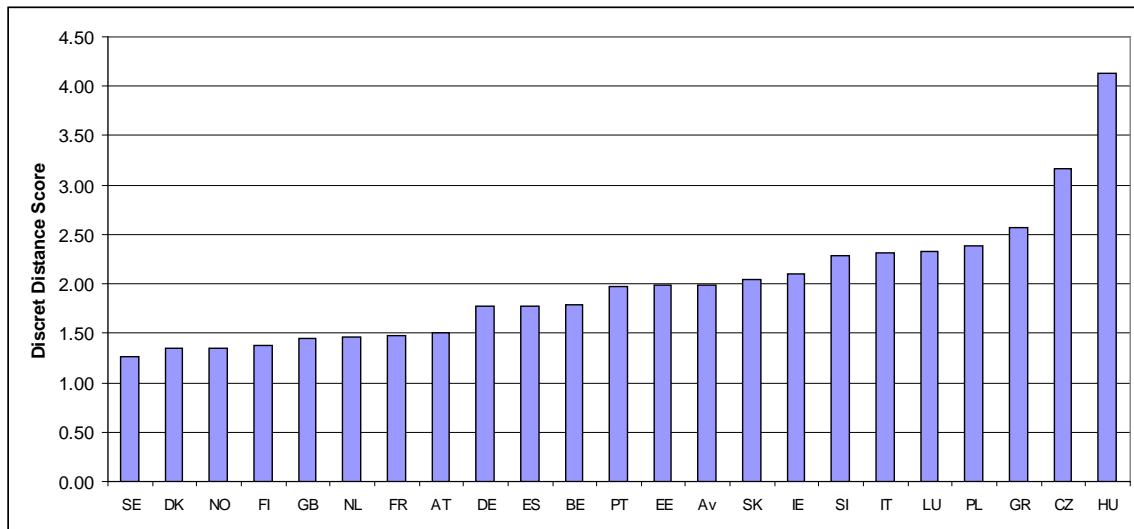


Source: European Social Survey, 2004

A potential criticism of evidence based on employee reports, when used comparatively, is that it may be affected by differences in modes of rhetoric between countries. People may tend towards more positive or more negative responses in particular countries or tend to use more extreme or more neutral points on the response scale. One way of trying to discount this is to construct a measure based on differences between categories of employee within countries. The assumption is that cultural differences in response mode would affect all types of employee within a particular country, so that estimates of differences would be unaffected. With respect to job control, this can be done by creating a measure of ‘control distance’ which captures the difference between the level of control typical of those in the highest occupational class – higher managers and professionals and those in the lowest the non-skilled. Apart from its methodological advantages, such a measure captures the level of inequality in control and there is a growing literature suggesting that the relative deprivation associated with higher levels of inequality may be even more damaging to individual well-being than absolute levels (Marmot, 2004; Wilkinson, 2005; Wilkinson and Pickett, 2010).



**Figure 6 Control Distance by Country: Differentials in Job Control between Higher Managers/Professionals and the Non-Skilled**



Source: European Social Survey, 2004

Interestingly, the picture of country differences is very similar on the relative measure of control distance (Figure 6) to that for the average levels of employee control. The countries in which employees had higher task discretion are generally those in which control distance is lower and those that had lower task discretion have more hierarchical control patterns. The Nordic countries stand out as having very low control distance ratios, as do Netherlands and France. The new member states have particularly high levels of control distance, together with Ireland and Greece. There are some country differences in rank order compared with average levels of employee job control: Spain, Portugal and Estonia had low levels of task discretion, but they are also relatively non-hierarchical. Luxembourg had high average levels of task discretion, but control distance is also high.

Taking the country groups (Table 5), it can be seen that the Nordic countries have the highest average levels of job control and the lowest degree of class distance in job control. This contrasts sharply with the Continental Coordinated group where average employee job control is lower than in Liberal UK and the distance between the job control exercised by higher professionals

and managers and the non-skilled is even greater. Average job control is particularly low in the State Coordinated and Transition countries, while hierarchical differentiation is even sharper. Ireland is clearly quite distinct from the UK on both dimensions. It has much lower job control and much greater class distance in control.

**Table 5 Job Control and Class Distance in Job Control by Country Group**

	Liberal Market	Nordic	Continental Coordinated	State Coordinated	Transition	Ireland
Job Control	5.53	6.61	5.37	4.63	3.99	4.20
Control Distance	1.45	1.36	1.87	2.02	1.96	2.10

Source: European Social Survey, 2004

*Collective Bargaining Structures, Individual Job Control and Control Distance*

How does the structure of industrial relations relate to the level of job control and the degree of control distance in different countries? Table 6 shows the correlations between the key dimensions of industrial relations discussed earlier and the degree of distance in job control between higher managers and the non-skilled. Taking first the measures that have attracted most attention in the earlier literature – the degree of centralization of bargaining (emphasized by the corporatist literature) and the degree of bargaining coordination (central to the production regimes literature), it can be seen that neither have a significant effect on either the level of employee control or the degree of distance in job control between occupational classes.

There are rather stronger associations with respect to the dimensions of industrial relations emphasized in discussions of employment regimes. Although bargaining coverage is not significantly associated with the level of employee job control, it has a significant negative effect on the extent of control distance. The wider the coverage of collective bargaining, the less hierarchical are control patterns. Union density has a strong effect both in terms of increased employee job control and in terms of reduced control distance. To take account of the overall

institutionalization of joint regulation, an indicator can be constructed with a value of 3 where both coverage and density are above average, 2 where coverage is above average but density is below average and 1 where both coverage and density are below average. As can be seen the coefficients for level of institutionalization are substantially higher again. Finally it can be seen the presence and rights of works councils are associated with higher levels of job control for employees, but they have little effect on hierarchical distance in control patterns.

**Table 6 Bargaining Structures, Employee Job Control and Control Distance**

	Employee Job Control	Degree of Control Distance
Centralization of Bargaining	.30	-.41
Bargaining Coordination	.14	-.26
Bargaining Coverage	.42	-.51*
Union Density	.59**	-.42*
Institutionalization (High, Medium, Low)	.65**	-.57**
Prevalence of Works Councils	.56**	-.23
Rights of Works Councils	.58**	-.24
% Vocational ISCED3	.21	-.25

Note: \*\*= $p < 0.01$ , \*= $p < 0.05$ . Sources: ESS, 2004 for job control and control distance, ISSTWS, Visser 2011 for industrial relations variables, Eurostat for vocational training INDIC\_ED educ\_ipart\_s.

### *Compositional Factors, Trust and Job Control*

It is also possible that other aspects of the social structural and cultural context account for the differences in employee job control between the country groups. To begin, we investigate whether differences can be attributed to compositional differences in the workforce – in particular with respect to the occupational class, industrial and firm size structures that prevail in particular countries. We then look at the issue of whether difference between country patterns can be accounted for in terms of prevalence of interpersonal and institutional trust in a society. To examine these issues, we turn to individual level data – drawing on the European Social Survey of 2004 which included a special module on work relations.

### *Compositional Factors*

Taking the aggregate picture for the EU countries in the data set, there were important differences in the typical level of job control between different categories of employee (Table 7). Female employees were markedly less likely to have job control than male and older employees than younger. There was also a very strong gradient by occupational class, with job control declining at lower levels of the occupational hierarchy. There was also a clear difference by industrial sector : employees in service industries were likely to have higher job control than those in manufacturing. Finally, there was a negative effect of increasing workplace size –employees in smaller workplaces were the most likely to have control over their work.

**Table 7 Compositional Effects on Individual Job Control**

		B Coeffs	T	Sig
	(Constant)	6.899	111.748	***
Sex	female	-.781	-23.174	***
Age	age2534	.276	5.858	***
(ref age 14-24	age3544	.718	16.105	***
	age4554	.630	13.855	***
	age5564	.619	12.840	***
Class	Lower Prof-Mgr	-.951	-18.468	***
(ref Higher Prof-Mgr)	Routine Non-Manual	-2.657	-50.903	***
	Skilled Manual	-3.070	-50.896	***
	Non-Skilled	-2.859	-55.452	***
Industry	Construction	.370	5.472	***
(ref Transformative)	Retail and Hotels	.411	7.963	***
	Transport and Communications	-.112	-1.646	.100
	Finance and Business Services	.687	11.736	***
	Public and Welfare Services	.667	14.162	***

	Community and Domestic Services	.694	10.788	***
Workplace Size	25-99 employees	-.628	-16.080	***
(ref 1-24)	100-499 employees	-.776	-17.370	***
	500+ employees	-.821	-16.003	***
Constant		6.252	68.879	***
Adj R2	0.18			
N	18263			

Note: Data from European Social Survey, 2004. \*\*\*=p<0.001, \*\*=p<0.01, \*=p<0.05. No data for Cyprus, Latvia, Lithuania and Romania.

However, a comparison, using regression analysis, of the country group coefficients without and without controls (Table 8) shows that, although such compositional factors have strong direct effects, they explain little of the difference between country groups in levels of job control. The initial pattern of coefficients, without taking account of structural or cultural factors, reproduces the differences seen earlier in the mean scores. The Nordic countries are shown as having a significantly higher level of job control than Britain. The Continental Coordinated countries are not statistically different from Britain, but the State Coordinated and particularly the Transition country groups come out as having very much lower levels of employee control. Ireland turns out in this case to be close to the transition countries.

**Table 8 Country Effects on Job Control with Compositional Controls**

	Model 1		Model 2	
	Initial Coefficients		+ Compositional Factors	
	B	Sig	B	Sig
Nordic	1.08	***	1.02	***
Continental Coordinated	-.16		-.21	*
State Coordination	-.90	***	-.71	***
Transition	-1.54	***	-1.27	***
Ireland	-1.33	***	-1.23	***
Female				
Lower Prof-Mgr			-.69	***
Routine Non-Man			-2.02	***
Skilled Manual			-2.34	***

Non-Skilled			-2.81	***
Transport			-.22	**
Fin& Bus Servs			.27	***
Public & Welfare			.25	***
Comm & Domestic			.57	***
25-99 employees			-.32	***
100-499 emps			-.44	***
500+ emps			-.62	***
Adj R2	.11		.26	
N	20143		18263	

Note: Data from the European Social Survey, 2004. Models 2 and 3 include controls for compositional for compositional factors : sex, age, class, industry and workplace size, but age and non-significant coefficients are omitted. \*\*\*= $p < 0.001$ , \*\*= $p < 0.01$ , \*= $p < 0.05$ . No data for Cyprus, Latvia, Lithuania and Romania.

Once compositional factors are taken account of, there is a marked increase in the amount of variance explained (from an R2 of 0.11 to 0.25). But there is only a modest reduction in the positive effect for the Nordic country group and a rather more marked reduction in the negative effects for the State Coordinated and Transition countries. For these, lower discretion is partially linked to structural differences in the workforce compared to the Liberal and Continental Coordinated countries. Further the Continental Coordinated country group now shows a lower level of job control than Britain, albeit at a relatively low level of significance. But although there is some reduction in the degree of difference between the country groupings, the basic pattern remains the same. In particular, the sharply contrasting patterns of the Nordic countries on the one hand and the Continental Coordinated, State Coordinated and transition countries on the other still stand out very clearly even when differences due to workforce structure have been taken into account.

### *Trust and Job Control*

A second type of factor that may account for differences in job control relates to deeper underlying cultural differences between countries, in particular in the extent of trust that typically prevails in other people. Green and his colleagues (Green et al, 2009; Green and Janmaat, 2011)

have shown that levels of trust vary between country groupings and the pattern they show by country group is not dissimilar from that for job control. In particular, they find especially high levels of trust in the Nordic countries and much lower levels of trust in the transition and some of the Southern European countries. They argue that trust is likely to be an important factor for both the form and quality of economic relations.

There is also a literature in industrial sociology that has argued more specifically that there is an important link between trust and forms of job design. Perhaps the most important contribution arguing for the interconnection between work structures and trust has been that of Alan Fox (1974), building on an earlier literature on norms of reciprocity (Gouldner, 1959, 1960). For Fox patterns of work organization were effectively forms of 'institutionalized trust', in that they inherently embodied cultural assumptions about whether or not employees could be trusted to carry out work adequately without tight control and a punitive environment. To the extent that employers imposed tightly specified job roles, with detailed rules about job performance monitored by close supervision, they were likely to be seen by employees as distrusting them. This in turn would lead to demotivated behaviour, an unwillingness to carry out work that went strictly beyond that required by the rules and a deep resentment of management. This created a downward spiral in which the imposition of less discretionary work roles encouraged forms of withdrawal or resistance that led employers to further decrease levels of discretion. The introduction of high discretion work roles on the other hand had the opposite dynamic. By conveying a clear sense that employees were trusted, it generated higher levels of motivation and discretionary effort, leading employers to increase the scope for employee initiative in work. Fox was able to draw on a rich array of case studies to illustrate his argument, most notably the classic studies by Gouldner (1955, 1965).

Trust then can be seen as both a determinant and an outcome of patterns of job design. In countries where there are high levels of trust, employers could be expected to construct work roles in a way that provides significant levels of individual discretion. Conversely, where general trust is low, or trust in the actions of elites problematic, employers are more likely to ensure that they can exercise tight control of work performance. However, patterns of job design also affect

trust by reinforcing tendencies to higher or lower trust through the degree of discretion and influence they give to employees over the work process.

The European Social Survey provides a wide range of items that can be taken as indicators of trust. At a broad level, these can be divided into two types of measure: those concerned with trust in the political system and those concerned with broader social trust. The former covers trust in parliament, the legal system, the police, politicians and political parties. The latter covers general trustfulness towards other people and trust in the honesty of different service providers. To these we have added two measures to capture trust in workplace relations and a measure of trust in the social orientation (as against the profit orientation) of business.

The workplace trust measures are perhaps the least conventional. They were chosen to tap two dimensions of workplace trust – trust between colleagues and trust in management. In the literature, these are seen as closely interlinked. Fox (1974:43) draws on an earlier summary of research in the field by Argyris (1964) to argue that mechanistic forms of organization that rely on tightly specified roles and elaborate rule systems lead to ‘an emphasis on social status, inter-group and individual competition and rivalry’. The measure asks people how true it is that they can get ‘support and help’ from coworkers when needed. The second measure is an indicator of organizational commitment. Drawing on the earlier work of Stinchcombe (1959) and Parsons and Smelser (1956), Fox (1974:31) argues that employers favouring high discretion work roles are seeking to encourage a diffuse form of commitment rather than one based on economic reward alone, by virtue of which the individual tends to develop a sense of organizational responsibility and to accept responsibilities beyond any specific contracted function. The European social survey measure asks how strongly the person agrees or disagrees that they would ‘turn down another job with higher pay in order to stay with this organisation’. The assumption is that if employees would not move to another job if offered higher pay, they must have strong diffuse bonds to the organization and a high trust in their employer to look after their well-being in the longer term.

To explore the underlying structure of the different trust items, a principal components analysis was carried out, with varimax rotation (see Appendix Table 1). This revealed four factors with an



eigenvalue higher than one and a fifth factor just below the conventional threshold (0.994). The first factor was dominated by the political trust items, with the highest loading item being trust in politicians. The second factor – which we have termed general trustfulness – included the most general statements about the trustfulness, fairness and helpfulness of people. The third can be taken as ‘trust in service providers’ – since it covered the perceived honesty of groups as diverse as banks, public officials and self-employed repairers, with trust in banks as the highest loading item. The fourth, which was led by the item for organizational trust, followed by trust in the helpfulness of colleagues, can be considered a measure of ‘workplace trust’. Finally, given its theoretical interest, we have included the factor dominated by the item on the trustfulness of business, even though it is marginally below the conventional threshold. The scores for the five factors were extracted and stored as variables for use in the analysis.

**Table 9 Country Differences in Trust**

	Interpersonal	Political	Service	Workplace	Business
Nordic	.37***	.56***	.53***	.03	.06
Continental Coordinated	-.17***	.28***	.38***	.07***	-.02
State Coordinated	-.55***	-.03	.25***	-.03*	-.40***
Transition	-.52***	-.46***	.36***	-.28***	.08*
Ireland	.48***	-.26***	-.26***	-.08*	-.11**

Note: Data from European Social Survey, 2004. \*\*\*=p<0.001, \*\*=p<0.01, \*=p<0.05. No data for Cyprus, Latvia, Lithuania and Romania.

A first point that can be seen in Table 9 is that the relative position of countries varies substantially depending on the specific type of trust. As shown by Green et al (2009) the Nordic countries are very high in terms of interpersonal and political trust and they also come out high with respect to trust in service providers. But they are not significantly different from Britain with respect to workplace or business trust. The Continental Coordinated countries come out significantly lower than Britain and the Nordic countries in terms of interpersonal trust but they are higher than Britain with respect to political, service and workplace trust. The State coordinated countries are lowest of all for interpersonal trust and trust in business, but have a higher trust than the British in service providers. The transition countries are very low with

respect to interpersonal trust and workplace trust, but again are more trusting than the British in service providers. Finally the Irish show high interpersonal trust, but low trust with respect to all specific settings. Countries then have different trust profiles and their relative levels of trust appear to be context specific. This militates against any simple assumption that high levels of interpersonal trust in a country necessarily colour strongly social relations across all domains. In particular, the lack of distinctiveness of the Nordic countries with respect to workplace trust makes it unlikely that this is a major factor accounting for their higher levels of job control.

The effect of adding in controls for the various dimensions of trust can be seen in Table 10. Political trust has only a very weak positive effect, but all of the other three dimensions of trust have a significant positive effect on the degree of discretion employees exercise, most particularly the degree of workplace trust. However, turning to the country coefficients, it can be seen that the effect of trust on the coefficients is relatively small for the Nordic and Continental Coordinated countries. In contrast, it leads to sharp reductions in the coefficients for the state coordinated and transition societies and to a lesser extent for Ireland.

**Table 10 Country Effects on Job Control with Compositional and Trust Controls**

	Model 1		Model 2	
	Initial Coefficients		+ Trust	
	B	Sig	B	Sig
Nordic	1.08	***	.96	***
Continental Coordinated	-.16		-.15	
State Coordination	-.90	***	-.39	***
Transition	-1.54	***	-.99	***
Ireland	-1.33	***	-1.17	***
Interpersonal Trust			.18	***
Political Trust			.07	**
Workplace Trust			.34	***
Business Trust			.17	***
Adj R2	.11		.27	
N	20143		14785	

Note: Data from the European Social Survey, 2004. Models 2 includes controls for compositional factors (coefficients not shown): sex, age, class, industry and workplace size. \*\*\*=p<0.001, \*\*=p<0.01, \*=p<0.05. No data

for Cyprus, Latvia, Lithuania and Romania. \*\*\*= $p < 0.001$ , \*\*= $p < 0.01$ , \*= $p < 0.05$ . No data for Cyprus, Latvia, Lithuania and Romania.

Controlling for trust does reduce the differentials between countries, in particular for those countries which had particularly low levels of trust with respect both to interpersonal relations and workplace or business relations. But the basic pattern of difference between country groups still emerges very clearly, once differences of trust had been taken into account. In particular, the Nordic countries still stood out as having particularly high levels of job control, while the State Coordinated and transition countries (and Ireland) have employees with relatively low levels of influence over their jobs. This suggests that, while trust was a factor that had implications for employees job influence, its importance was relatively minor in accounting for country differences.

## **Production Regimes and Skill Development**

### *Pre-Entry Vocational Training*

It was central to the argument of production regime theory that coordinated regimes would foster higher and more specialized skills as a result of stronger vocational training both prior to and after full entry to the labour market. In contrast, liberal market regimes would depend upon general skills acquired through the school system. As Hall and Soskice (2001:25) argue ‘Because coordinated market economies typically make extensive use of labor with high industry-specific or firm-specific skills, they depend on education and training systems capable of providing workers with such skills’. In contrast, liberal market economies draw on general skills both because employers are reluctant to invest in training when there are few barriers to poaching by other companies and because workers themselves, facing short job tenures and fluid labour markets, prefer general skills that can be used in many different firms (Hall and Soskice, 2001: 30). The notion of skill specificity was conceived as rooted primarily in the forms of pre-labour market entry vocational training.

Busemeyer (2009) has criticized the ‘hazy’ conceptualization and over-simplification involved in the dichotomous distinction between ‘general’ and ‘specific’ skills and points to the need to

distinguish between the extent of firm as against school based learning on the one hand and the vocational specificity and accreditation of skills on the other. He argues that the Swedish and German skill formation regimes are quite different in terms of the degree of integration of vocational and general learning, with the Swedish representing an ‘integrationist’ (school-based model) and the German a ‘differentiated’ (workplace-based) model. Similarly, Iversen and Stephens (2008) call into question the similarity of coordinated market economies with respect to initial skills formation. They distinguish three worlds of human capital formation ‘one characterized by redistribution and heavy investment in public education and industry-specific and occupation-specific occupation vocational skills; one characterized by high social insurance and vocational training in firm-specific and industry-specific skills but less spending on public education; and one characterized by heavy private investment in general skills but modest spending on public education and redistribution’. In practice, this reintroduces the distinction between two types of coordinated labour market (originally the centralized egalitarian coordination of the Nordic societies and the flexible coordination to be found in Germany). A central factor accounting for this difference is the nature of the welfare state. Societies that favour greater social equality foster higher levels of both general and specific skills especially at the bottom end of the skill distribution. Greater equality in turn reflects the historical extent of left control of government and the degree of union organization and union involvement in coordinated wage bargaining. Left control government in part reflects the different dynamics of coalition politics in countries with distinct types of electoral system (majoritarian or proportional) and with different levels of Christian Democratic party strength.

Iversen and Stephens drew on evidence from the 1990s. It is possible to compare the strength of vocational training using more recent Eurostat data that gives the proportion of students at ISCED level 3 in vocational training in contrast to general education<sup>1</sup>. This shows some support for the view that there is an association between the strength of bargaining coordination and the strength of initial vocational training.

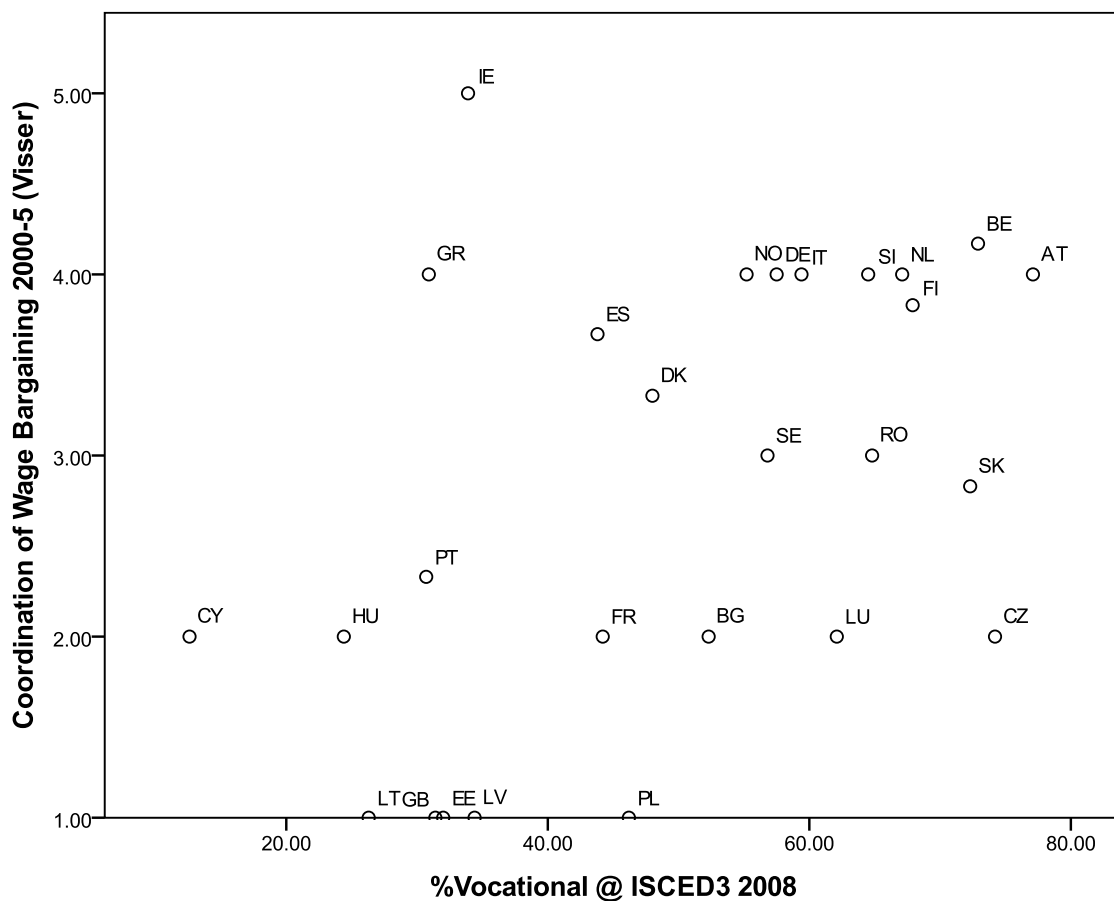
The correlation between bargaining coordination and the proportion of students taking vocational training courses is 0.46 (significant at the  $p=0.05$  level). As can be seen in Figure 7, there is a

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<sup>1</sup> Eurostat INDIC\_ED educ\_ipart\_s

significant cluster of countries in the upper right quadrant of the chart that combine strong bargaining coordination with high proportions of students taking vocational training. These include the Nordic countries, Austria, Germany, Belgium, the Netherlands and Italy. However, there are also many cases of countries where there is little correspondence between high or low bargaining coordination and the expected prevalence of vocational training.

**Figure 7 Wage Bargaining Coordination and Pre-Entry Vocational Training**



Note:

Sources: % Vocational training: Eurostat INDIC\_ED educ\_ipart\_s; bargaining coordination ICTWSS, Visser, 2011. R=0.46 (p<0.05).

Taking the pattern by country group (Table 11), it can be seen that it is the Continental Coordinated countries that stand out as having the strongest emphasis on vocational training with the Nordic countries some distance behind. This is consistent with Iversen and Stephen's

conclusion that both public education and vocational training have a strong role in the Nordic societies. The transition countries also come out with a relatively high score with respect to vocational training. But this reflects very substantial diversity between the countries that constitute the group. Countries such as Bulgaria, the Czech Republic, Romania and Slovakia have a similar proportion of upper secondary students on vocational courses to countries in the Continental Coordinated group. But Estonia and Latvia have proportions as low as the UK, while Hungary and Lithuania have even lower proportions in vocational training. As argued by production regime theory, the Liberal UK and Ireland place little emphasis on vocational training. The State Coordinated countries were intermediate between the Nordic and the Liberal pattern.

**Table 11 Initial Vocational Training (% of ISCED3 students) in 2008 by Country Group**

	Liberal Market	Nordic	Continental Coordinated	State Coordinated	Transition	Ireland
% Vocational	31.4	57.0	66.9	41.8	53.6	33.9

Source: Data derived on Vocational Training derived from: Eurostat INDIC\_ED educ\_ipart .

Overall, with respect to initial training, the general argument of production regime theory is supported, although there is also support for a degree of internal differentiation within the coordinated market economy category (which embraces both the Continental and the Nordic country groups).

### *Continuing Vocational Learning*

Production regime theory places a strong emphasis upon the link between greater market coordination and specific skills - both industry and firm-specific skills. The latter by definition requires a strong system of continuing training, in the broad sense of both formal and informal learning in the course of a person's career. It is this dimension of learning that is most central for the quality of work.

Edlund and Grönlund (2008) have raised some significant issues about the empirical validity of the view that coordinated market economies necessarily foster greater workplace based specific skill learning . Their evidence suggests that there are wide variations between coordinated countries, in particular between the Nordic countries on the one hand and the Continental Coordinated countries on the other. They find that the production regime thesis fits reasonably well the Continental Coordinated countries, but that the Nordic countries are more similar to the Liberal Market Economies (the UK and Ireland) in the relative independence of employees from specific employers. Akin to the power resource theory that underlies an ‘employment regime’ perspective, they attribute this to the much stronger role of the trade unions in the Nordic societies, with their emphasis upon codetermination at both macro and micro level. Skills become more portable when unions are strong and collective bargaining important.

As they point out, there are significant differences in pattern depending upon the specific measure of in-career skill formation. They adopt three different measures from the European Social Survey, 2004. Their ‘main’ measure is an indicator of ‘on-the-job training indicator - the time required for somebody with the right education and qualifications to learn to a job well on initial entry to the job. This is supplemented by a measure of job tenure and a measure of the mutual dependence between employer and employee based on employee reports about how easy it would be for the employee to get a better job with another employer and how easy it would be for the employer to replace the individual employee. The assumption that coordinated countries would have higher levels of the on-the-job training than Liberal countries would appear to be unsupported. The Nordic countries are similar to the Continental Coordinated with respect to tenure, but they are closer to the Liberal countries in terms of mutual dependence.

Arguably, however, none of these measures is fully satisfactory. Tenure may be affected by many factors other than skill portability such as the state of the labour market or the financial reward system. Mutual dependence may be a reflection of the specificity of skills, but these may not be result of new learning. Indeed, even the main on-the-job training measure is problematic since it refers only to initial training on first taking up the job rather than to on-going training experience. As an alternative approach, it is possible to draw on two other measures available in the European Social Survey that capture better on-going experiences of learning at work. The first is a broader

question about training. It asks: ‘During the last twelve months, have you taken any course or attended any lecture or conference to improve your knowledge or skills for work?’ The second seeks to capture more informal learning processes by asking how true it is that ‘My job requires that I keep learning new things’. Neither provides a measure of firm specific skill formation in the sense of non-portability between employers. But the assumption of a sharp distinction between firm specific and portable skills is questionable and certainly the production regime literature is explicitly concerned with specificity in a broader sense that allows for intra-industry mobility (Estevez-Abe et al, 2001; Cusack et al, 2006).

**Table 12 Work Related Training and Job Learning by Country Group**

	Work-Related Training last 12 mths	Job requires learning new things		
		Very true	Quite true	Very+Quite
Nordic	67.0	39.6	32.6	72.2
Continental Coordinated	51.9	27.7	34.3	62.0
State Coordination	30.0	24.6	28.5	53.1
Transition	38.2	25.4	35.1	60.5
Ireland	45.0	35.3	29.5	64.8
Liberal-UK	53.3	37.6	30.5	68.1

Source: European Social Survey, 2004

The expectation from production regime theory would be that work-related training and learning would be more pronounced in the coordinated country groups (at least in the Nordic and Continental Coordinated groups) than in the Liberal. An initial examination of the empirical pattern for the different country groups (Table 12) shows that this was not the case. The Nordic countries did indeed come out highest with respect to both training and job learning, but the next highest was the exemplar case of a liberal market economy – the UK. The Continental Coordinated country group came in only fourth position with respect to both forms of learning. The State Coordinated country group came out the lowest on both indicators, followed by the transition countries.



It has been consistently shown that there is a very strong class gradient to opportunities for training, either due to employer preference to invest in those with demonstrated learning skills or to differential confidence or motivation for training between employees at different class levels. Similarly, there are grounds for expecting a strong relationship between workplace size and learning experiences, as larger organizations typically have larger and more sophisticated human resource departments. How far can the country group differences be accounted for by compositional differences in the workforce?

Table 13 shows the country group coefficients first without controls and then controlling for a range of compositional factors – sex, age (coefficients not show), class, industry and size of workplace. The initial coefficients show the significance of the differences between countries. Taking first work-related training, it can be seen that the Nordic countries had a strong significant positive coefficient indicating a higher provision of work related training than in the Liberal regime of the UK. In contrast, the state coordinated and transition country groups and Ireland had a significantly negative coefficient. But the level of training in the Continental Coordinated countries was indistinguishable from that in Britain.

**Table 13 Country Effects on Work-related Training and Learning with Compositional and Trust Controls**

	Work-related Training				Job requires learning			
	Initial Coefficients		+ Compositional Factors		Initial Coefficients		+ Compositional Factors	
	B	Sig	B	Sig	B	Sig	B	Sig
Nordic	.57	***	.74	***	.16	*	.16	*
Continental Coordinated	-.06		.01		-.34	***	-.43	***
State Coordination	-.98	***	-.83	***	-.67	***	-.54	***
Transition	-.62	***	-.36	***	-.44	***	-.27	***
Ireland	-.34	***	-.22	*	-.15		-.19	
Female			-.08	*			-.28	***
Lower Prof-Mgr			-.34	***			-.22	***

Routine Non-Man			-1.05	***			-1.02	***
Skilled Manual			-1.33	***			-.77	***
Non-Skilled			-1.80	***			-1.95	***
Construction			-.28	***			.11	
Retail and Hotels			-.23	***			-.16	**
Transport			.08				.10	
Fin& Bus Servs			.39	***			.31	***
Public & Welfare			.74	***			.50	***
Comm & Domestic			.19				.09	
25-99 employees			.30	***			.12	***
100-499 emps			.34	***			.08	*
500+ emps			.58	**			.13	**
Constant	.13	*	.65	***				
Nagelkerke R sq	.08		.26					
N	20069		20069		18703		16818	

Note : Data from European Social Survey. Logistic Regression for Work-related training ; Ordered Logit for Job requires learning. Age included in both models. Sig= \*\*\*=p<0.001, \*\*=p<0.01, \*=p<0.05. No data for Cyprus, Latvia, Lithuania and Romania.

An examination of the change in the initial country group coefficients when compositional differences are taken into account shows that some of the divergence between countries can be accounted for by such factors. With respect to work-related training, the negative coefficients for the state coordinated and particularly the transition country groups diminish considerably and the same is true for Ireland. However, controlling for compositional factors does not reduce the distinctiveness of the Nordic countries, but rather enhances it. Despite taking account of such effects, then, the underlying pattern of difference still stands out clearly.

The pattern is similar in certain respects for learning required by the job. The initial country group coefficients show that jobs in the Nordic countries are again distinctive in the higher level of learning they provide, although at a lower level of significance than was the case for work-related training. The state and transition countries again stand out for the relatively low level of learning on jobs. The main differences compared to the pattern for training is that the Continental Coordinated country group have relatively low levels of direct learning on the job and are closer

to the state coordinated and transition countries than to the Nordic countries. Controlling for compositional factors does reduce substantially the difference between the State Coordinated and transition countries and the UK. But this was not the case for the Nordic or Continental Coordinated group. Overall, the notable feature of the results is again that the controls for compositional factors still leave intact the basic pattern of relative country differences.

## **Conclusions**

The paper has been concerned to investigate the links between certain macro-structural properties of advanced capitalist societies and two dimensions of the quality of working life that have been widely seen to be crucial both for employee well-being and for economic performance, namely employee participation in decision-making at work and opportunities for skill development. Its point of departure were the arguments of production regime theory, which stressed the importance of bargaining coordination and the employment regime perspective that emphasized the extent of inclusiveness of institutions of joint regulation of employment relations. These perspectives, driven by rather different assumptions about the main institutional determinants of policies, differed particularly in their expectations about the similarity or dissimilarity of the Nordic and Continental Coordinated countries. Whereas these were seen as very similar in production theory, they were viewed as having quite different institutional dynamics in the employment regime perspective.

An initial concern was the classification of countries in the EU into the broad regime types outlined by the different theoretical arguments. While some country allocations had been quite clearly specified, others had been left undiscussed or tentatively allocated to regime types that remained relatively unelaborated. The strategy then was to constitute a set of country groups that could be compared empirically in the light of the expectations of different theoretical perspectives in terms both their macro-institutional characteristics and of the nature of employee experiences of work. This led to the construction of five country groups: the Liberal, Nordic, Continental Coordinated, State Coordinated and Transition. In the light of the rather controversial position of Ireland, this country was left outside any group classification to examine empirically

how its characteristics compared to other country groups. For the purposes of European comparisons, the Liberal country group was then restricted to the single case of the UK.

The broad claims of both the production regime and employment regime perspectives about the differences between countries in the institutions of industrial relations were largely confirmed. Production theory had identified two types of regime with high levels of coordination of collective bargaining – the Coordinated Market Economies (which included both the Nordic and Continental Coordinated groups) and the State-Coordinated or ‘Mediterranean’ market economies, which included France and the Southern European countries. These indeed had markedly higher coordination scores on a well-respected indicator of bargaining coordination than either the transition countries or the Liberal market economy regime, represented by the UK. As had been anticipated, the major exception was Ireland, which had the highest levels of bargaining coordination of all European countries. Since this was incompatible with the institutional assumptions of production theory, it confirmed that it was important to exclude it from the ‘Liberal’ regime category. The employment regime perspective had emphasized the inclusiveness of the joint regulation of employment conditions. Taking as the key indicators of inclusiveness the degree of coverage of collective bargaining and union density, it was possible to distinguish three country groupings – one where both bargaining coverage and union density was high; one where coverage was high but union density was low; and one where both coverage and union density were low. These broadly corresponded to the typology between inclusive, dualistic and liberal employment regimes. As argued in the employment regime thesis, this drew a critical distinction between the Nordic countries on the one hand, which were largely in the inclusive regime category, and the Continental and State Coordinated countries, on the other, which were predominantly in the dualistic category. This categorization tended to place the UK and the Transition country group in a similar ‘liberal’ grouping.

Our core concern was how well these different schemas related to differences in the opportunities that employees had for participation in decision making in work and for developing their skills. We took two types of indicator of participation. The first focused on formal institutional procedures, namely the prevalence and rights of works councils that could act as channels for employee voice. The second drew directly on evidence from employees about job control - the

influence they felt they could exercise over decisions at work. These two types of indicators showed rather different patterns for the different country groups. The Nordic and Continental Coordinated groups were very similar with respect to the relatively high prevalence and strong rights of works councils. They contrasted sharply with the Liberal and Transition country groups, where works council representation was very low. The State Coordinated countries occupied an intermediary position. However, the indicator based upon direct employee reports of influence showed a marked contrast between the Nordic Coordinated countries where employee influence was relatively high and the Continental Coordinated countries where employee influence appeared to be no higher than in the Liberal UK. The State Coordinated countries had employees who felt they had significantly lower levels of influence than were found in the UK. The main common finding with respect to both works councils and employees job control was that employee participation was particularly low in both the Transition country group and in Ireland.

The differences in pattern between the two measures are, however, important: the results for works councils support the expectations of production regime theory, whereas those for employees own views about their influence support the expectations of employment regime theory. Why the divergence between the prevalence of formal consultative bodies and employees' sense of the influence they could exercise in the workplace? One possibility is that employee reports are influenced by cultural differences in the way that people respond to questionnaire items. We checked this by constructing a measure of control distance between those in higher professional and managerial jobs and those in non-skilled work. Since this was a relative measure of the strength of hierarchy in work organizations, it discounted cultural response effects since these could be expected to be similar within any one country between different categories of the workforce. However, this relative measure showed precisely the same country group pattern as the original average measure.

Another possibility is that formal institutions of voice do not necessarily translate into effective employee influence. There is a relationship and we found a moderately strong correlation between the prevalence of works councils and the level of employee reported job control. But there is also clearly a significant gap between the realities caught by the two measures. Why should this be so? In the first place, it is far from the case that all employees are covered by such

formal institutions even in countries where the legislation tries to promote works councils. For instance, even in Germany, where works councils are strong, it has been estimated that only 53% of employees have access to works council representation (Addison et al, 2002). This partly reflects that fact that very small companies are excluded from the legal provisions, but there is also a significant default in the proportion of eligible companies that actually implement such provisions. Second, the presence of works councils may not give effective voice to employees because there may be a tendency for representatives to become distanced from the grass roots. Regular relationships with management may induce a shift of perspective that leads to such intermediaries adopting a managerial perspective rather than seeing themselves as primarily concerned to forward and defend grievances in the workforce. Finally, works council representation is not the only way in which employees can exercise influence over work organization. They may do so through their direct relationship with their supervisors and they may do so through collective representation by a local union. In short, there are several grounds for thinking that works council representation may be a relatively weak indicator of effective employee voice.

The pattern of country differences in employees' reports of their job control is likely then to be the most reliable guide to differences in effective participation. But can such country differences be accounted for in terms of the composition of the workforce or wider cultural differences that may affect interpersonal relations, rather than by industrial relations policies and institutions? Differences in the composition of the workforce were clearly important for employee influence. There were strong effects of occupational class, industrial sector and workplace size. Controlling for these did reduce some of the difference between country groups – in particular with respect to the relative position of the State Coordinated and transition countries. But they did not account for much of the country differences; the overall pattern of relative country positions still emerged clearly even when such factors had been taken to account. Similarly, we examined whether the differences were related to wider differences in institutional and interpersonal trust, which might be seen as favouring or discouraging systems of work organization that gave employees greater initiative and responsibility in decision making. There were significant links between the level of trust and employee job control, in particular the trust that people had in interpersonal relations in general and the trust they had in management and colleagues in their own workplace. But again,

while reducing the differences between country groups, the initial pattern still emerged very clearly.

The second issue that was central to our analysis was the relationship between the different country groups and opportunities available to employees for skill development. This was at the core of production regime theory, which postulated that coordinated market economies would place a much stronger emphasis on a higher skilled workforce and the development of specialized skills than a liberal market economy. This would be reflected both in much stronger initial vocational training provision prior to people's entry into the labour market and in the provision of in-career training.

There does appear to be a relationship between countries with high bargaining coordination and an emphasis on initial vocational training, although it is at a relatively weak level of statistical significance. Countries with higher levels of coordination were likely to have a higher proportion of upper secondary students in vocational training compared with general educational courses. This was particularly the case for the Continental Coordinated countries, while there was more equal balance in the Nordic countries between general public education and vocational training. In contrast, Liberal UK and Ireland had relatively weak systems of vocational training.

The pattern was rather different with respect to continuing or in-career vocational training. Here there was a clear differentiation between the Nordic and the Continental country groups. The Nordic countries indeed provided relatively good opportunities for training and jobs that allowed for direct learning on the job. But the Continental countries had levels of training that were very similar to the Liberal UK and the proportion in jobs that provided on-going direct learning was lower than the UK. Again, while differences in the structure of the workforce and industry accounted for some of the difference, the country group pattern still emerged once these had taken into account. The conclusion that the level of coordination in the industrial system does not account for the extensiveness of in-career training is reinforced by the fact that the State Coordinated countries came lowest of all in terms of both training opportunities and direct job learning.

The employment regime schema would seem to provide greater leverage in understanding the differences between the Nordic and Continental Coordinated countries with respect to in-career learning. But it is unable to account for the marked disparity between the low inclusive UK and Transition countries with respect to skill development. The transition country group has significantly lower levels of within career learning. Although this is the country group where initial differences are most affected by controlling for workforce and industry structure, these differences still persist after such factors have been taken into account.

Overall, it is clear that 'regime' accounts of differences in the quality of work have still far to go in developing frameworks that provide an adequate understanding of the pattern of country differences. Production regime theory notably fails to offer insight into the major differences between the Nordic countries on the one hand and the Continental European countries on the other with respect to either employee job control or opportunities for within-career learning. Its assumption that the UK and Ireland can be amalgamated into a relatively homogeneous category of 'liberal' is undermined not only by the sharp differences between the countries in their levels of bargaining coordination, but also by their very different positions with respect to job control. The attempt to extend the scope of the theory through the notion of state coordination further emphasizes that bargaining coordination per se is of limited value for understanding the realities of workplace relations. The State Coordinated countries were quite different from the Continental countries with respect to these aspects of work quality; indeed, they were more akin to the Transition countries with their very low levels of employee influence and in-career learning opportunities.

The employment regime perspective provides a more convincing account of the differences between the Nordic and the Continental countries. But, at least in its current form, it sheds little light on the differences between these and the State Coordinated and Transition countries. The transition countries for instance have levels of inclusiveness as low as the UK, but the patterns with respect to job control and learning are quite different. One explanation for this could be that, where higher joint regulation is very limited, employer behaviour is likely to be more varied, reflecting less the structure of current institutional constraints than the weight of past history. The low level of regulation in the UK gives power to employers in a country which has a long



tradition of civil liberties, individualistic culture and informally negotiated shop floor rule-making. In contrast the State Coordinated and the transition countries have emerged only relatively recently from relatively authoritarian structures, albeit deriving from rather different political traditions. The removal of central controls is likely to have left partly in place relatively authoritarian forms of management that are reflected in the limited influence of employees and a relative neglect of their welfare.

Despite the limitations in the more general accounts provided by regime theories of variation between capitalist societies, a central substantive finding that emerged from the analyses is the very distinctive position of the Nordic countries relative to all other country groups. The pursuit of strong policies of employee welfare, supported by a high degree of institutionalization of joint regulation both at national level and in the workplace, are the most plausible explanations of the sources of their comparative advantage. It is this rather than employer coordination per se that would appear to be crucial for providing the type of workforce that has been widely thought to be necessary for an effective knowledge economy.

## Appendix: Trust Measures

### *Political Trust*

Please tell me on a score of 0-10 how much you personally trust each of the institutions (0=no trust at all, 10=Complete Trust)

- Parliament
- The Legal System
- The Police
- Politicians
- Political Parties

### *Societal Trust*

- a) Would you say that most people can be trusted or that you can't be too careful in dealing with people? Responses on 0-10 scale, from 0=You can't be too careful to 10=Most people can be trusted.
- b) Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair? Responses on 0-10 scale, from 0=Most people would like to take advantage of me to 10=Most people would try to be fair.
- c) Would you say that most of the time people try to be helpful or that they are mostly looking out for themselves
- d) How much would you trust the following groups to deal honestly with people like you – Plumbers/builder/mechanic/other repairers
- e) How much would you trust the following groups to deal honestly with people like you – Financial companies such as banks or insurers? 5 point response scale 1=distrust a lot to 5=trust a lot.
- f) How much would you trust the following groups to deal honestly with people like you – Public Officials? 5 point response scale 1=distrust a lot to 5=trust a lot.
- g) How much do you agree or disagree - Nowadays businesses are only interested in making profits and not in improving service /quality.
- h) Please tell me how true each of the following statements is about your current job – I can get support and help from my coworkers when needed. 4 point response scale from 1=Not at all to 4=Very true.
- i) Thinking about the organization you work for, how much do you agree or disagree with the following statements – I would turn down another job with higher pay in order to stay with this organization. Responses on 5 point scale, with 1=Agree strongly to 5=Disagree strongly.

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**Table A.1 Principal Components Analysis of Trust Items (Varimax Rotation with Kaiser Normalization)**

	Factor 1	Factor 2	Factor 3
Trust in banks	.044	<b>.847</b>	-.014
Businesses only interested in profit	.224	.349	.118
Can get help and support from coworkers	.160	.046	<b>.693</b>
People would try to take advantage of me	<b>.866</b>	.124	.081
Most people can be trusted	<b>.869</b>	.131	.059
Trust public officials to deal honestly	.095	<b>.815</b>	.037
Would turn down higher pay to stay with this organisation	-.028	.049	<b>.807</b>
Eigenvalue	2.072	1.174	1.157
% of variance explained	22.8	1.54	1.16

Source: European Social Survey, 2004

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<sup>i</sup> Adjusted and unadjusted rates are generally very close, but they differ for some countries where public employees without bargaining rights are excluded – for instance Austria, Germany, Hungary, Luxembourg and Spain. More generally coverage rates exclude those not in the formal sector (for instance family workers), a category which estimates suggest is substantially higher in Southern European countries (European Commission, 2010).

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