

**CEP Discussion Paper No 796**

**May 2007**

**Incentive Pay Systems and the Management of Human  
Resources in France and Great Britain**

**David Marsden, Richard Belfield and Salima Benhamou**

## **Abstract**

Incentive pay systems have undergone major changes in recent decades. This paper investigates use of incentive pay systems in British and French private sector establishments in 2004, focusing on payment-by-results, merit pay, and profit sharing, using British and French workplace surveys: WERS and Réponse. Despite the stereotypes of Britain as a deregulated economy and France as a more coordinated social-market economy, French firms make considerably greater use of incentive pay, and particularly, merit pay. The paper explores the organisational and institutional determinants of this. It finds that personnel economics and management theories explain a significant share of the *within* country variation in use of incentive pay systems. Work autonomy, new technology, use of direct participation and communication are associated with use of merit pay and profit sharing. Product market influences have little direct impact on incentive choice, but may act through the choice of work systems. The effects of organisational variables are stronger in France than in Britain, suggesting that French managers are more conscious of the need for incentives to fit with work organisation. Industry-specific effects are also stronger in France. Two institutional factors help explain why French firms make more use of incentive pay: government tax incentives for profit-sharing; and the network activities of industry employer organisations which have boosted diffusion of merit pay. French employers are more active in industry local employer networks, and this correlates with industry usage patterns of incentive pay. French employers faced greater urgency for pay reform in the 1980s, when merit pay started to spread, because they needed greater flexibility within the envelope set by industry wage agreements. This provided the spur for pooling expertise and collective learning about the operation of incentive pay systems which was lacking in Britain.

Key words: incentive systems, merit pay, profit-sharing, employer organisation  
JEL classification: J3, J5, M5, M52

This paper was produced as part of the Centre's Labour Markets Programme. The Centre for Economic Performance is financed by the Economic and Social Research Council.

## **Acknowledgements**

This paper was produced as part of the Centre's Labour Markets Programme. The project is financed by the DARES of the French ministry of labour.

David Marsden is Professor of Industrial Relations and Associate in the Centre for Economic Performance, London School of Economics. Richard Belfield is an Associate of the Centre for Economic Performance, London School of Economics. Salima Benhamou is a Research Assistant at the Centre for Economic Performance, London School of Economics.

Published by  
Centre for Economic Performance  
London School of Economics and Political Science  
Houghton Street  
London WC2A 2AE

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means without the prior permission in writing of the publisher nor be issued to the public or circulated in any form other than that in which it is published.

Requests for permission to reproduce any article or part of the Working Paper should be sent to the editor at the above address.

© D. Marsden, R. Belfield and S. Benhamou, submitted 2007

ISBN 978 0 85328 172 6

## 1. Introduction

In recent decades, we have witnessed the spread of pay systems that focus increasingly on performance, at individual or group level, in France and Great Britain. In addition, the development of incentive systems such as profit sharing and forms of employee share ownership indicate the search for new methods of human resource management seeking to enhance both pay cost flexibility and employee motivation. Pay appears to be less and less tied to a particular job or skill, and to be increasingly linked to the individual or collective performance of employees. Thus, given the range of different kinds of pay systems between which firms may choose, one could ask whether their choice is shaped by new competitive conditions, and new organizational demands. In such a case, one could argue that firms in both countries generally are adopting a new strategy towards pay, focused on performance. Alternatively, if the structure of employment relations and the social values present in different countries also play an important part, then one would expect greater diversity in firms' pay policies.

Our study explores the determinants of firms' choice of pay incentive system with the aid of two surveys of workplace employment relations and human resource practices in British and French establishments.<sup>1</sup> These two surveys, carried out in 2004 in both countries, provide a unique opportunity to trace out the incentive systems and pay strategies adopted. Apart from the availability of two rich data sources, why should one compare the experience of the two countries? The two economies are similar in many respects. They are of similar age and size, and are at similar levels of economic development. Firms in the two countries have had to face up to the same challenges of globalization of markets and the rise of new technologies. They have confronted the same problems of adjusting their organizational structures and employment relations to the new reality. Nevertheless, there are important differences in labour institutions between the two countries. First, the patterns of employee representation at firm-level are fundamentally different. Whereas in France industry agreements have retained significant influence over basic pay at establishment level, this level of bargaining has all but disappeared from the private sector in Britain. In addition, in France workplace systems of employee representation have remained intact, whereas in Britain, the former system of industrial relations has undergone major decline. This change can be seen in the progressive decline in the number of private sector establishments covered by collective agreements, as well as by a steep decline in union membership density. The recent legislation on workplace representation (Employment Relations Act 1999) and the new obligation for the employer to inform and consult employees (Information and Consultation of Employees Act 2005) inspired great hopes of a change of trend, but to date, its effect has been modest.

A second major difference has been the level of state involvement in seeking to influence employers' choice of pay systems. For many decades in France, successive governments have encouraged systems of profit-sharing and employee share ownership. They have made it obligatory for firms with more than 50 employees to introduce financial participation measures. In contrast, in Britain, employers have enjoyed much greater autonomy at local level in the choice of management and pay systems, with the exception of the fiscal support for profit-sharing and employee share ownership during years of the Conservative administrations of Margaret Thatcher and John Major.

These last remarks belong in a wider contrast between the overall methods of regulating the two economies. France is often considered as belonging to the 'old social Europe' in which market coordination has to take account of the interests of different organized interests of

---

<sup>1</sup> WERS covers establishments in Great Britain but not in Northern Ireland.

unions and employers.<sup>2</sup> In contrast, the British economy is often characterized as belonging to the liberal ‘new European economy’ in which market coordination depends more on a series of agreements among individual actors: firms and workers (eg. Hall and Soskice 2001, Bessy et al 2001). In the light of this stereotype, one would expect firms in France to give greater emphasis to collective incentives, and those in Britain to place greater stress on individual incentives. Therefore, we embarked on this research expecting to find that, compared with their French counterparts, British firms would much more often use financial and individual performance incentives to motivate their workforces. In fact, as we shall see, the opposite is the case. French establishments are much more likely to use incentive pay systems to drive performance, and particularly ‘merit pay’, thus revealing a much greater individualization of pay than in Britain.

This paper begins by describing the distribution of pay systems across private sector establishments in the two countries. Next we consider the different factors likely to influence employers’ choice of pay system, in the light of theories from the economics and human resource management literature. We then pass on to a statistical analysis of the weight of these different factors. Finally, we turn to an analysis of the differences between the two countries.

## **2. Distribution of incentive pay systems and human resource practices in Britain and France as observed from the WERS and Réponse surveys**

### *Different patterns of incentive use in France and Great Britain.*

For 2004, one can see a great diversity of practice in individual and collective incentive pay at establishment level in the two countries. Two major types of individual incentive pay seek to link employee pay to their contribution to the firm’s performance: ‘merit pay’ and payment-by-results, or individual performance bonuses. Although both types of system seek to reward employees according to their individual contribution to the firm’s performance, they differ in key respects. First, ‘merit pay’ increases are awarded following a subjective evaluation of an employee’s performance by his or her line manager. Sometimes this may focus on an overall judgement of the employee’s performance according to certain criteria, such as quality of work, initiative, cooperativeness and so on. Sometimes, it may focus on the degree to which the employee has achieved certain objectives that were fixed in advance (Heneman and Werner, 2005). The second type of system relates to bonuses for individual productivity, such as in piecework or commission on sales or profits. In this latter case, the criteria are objective and measurable. Of course, in practice, there is often a grey area between, and these two principles may overlap. These two pay systems differ also with regard to the permanency of performance-related increases. It is common for merit pay systems to lead to an increase in basic pay, whereas payment-by-results are commonly reversible depending on the level of productivity achieved in a given period. Thus payment-by-results systems lead usually to variable pay, whereas ‘merit pay’ increments commonly lead to permanent increases in base pay.

The term ‘merit pay’ is not widely used in French firms. In fact, the main surveys which have covered pay systems refer to ‘individualised pay increases’ which are contrasted with ‘general’ increases which go equally to all employees. This is the case for the French workplace survey, Réponse, which enquires about individualized pay increases excluding

---

<sup>2</sup> ‘The Economist’ newspaper, which has expressed this point of view, devoted a special issue to the state of the French economy in its issue published on 20.10.2006.

bonuses. The reason for the difference of terminology between ‘individualised increases’ in French firms, and ‘merit pay’ in their British counterparts may be explained by the level of industrial conflict surrounding their introduction in France during the 1980s. The subjective nature of the performance evaluations was hotly contested in French firms because of a widespread perception that ‘merit’ could lead to an unfair distribution of rewards. Thus, the term ‘merit pay’ was widely abandoned in favour of the less controversial one of ‘individualisation’ (Roussel, 2000). Nevertheless, the term remained common currency in Britain, as is borne out by the WERS survey which defines ‘merit pay’ as a form of incentive pay based on the subjective evaluation of an individual’s performance by their line manager.

The two surveys, WERS and Réponse, show that the two concepts of merit pay and individualization are very similar in practice at establishment level. According to Réponse, nine out of ten establishments which use individualized increases base these on the employee’s overall performance. The most important criteria are intensity of effort provided by the employee, the achievement of individual objectives, and contribution to the teamwork. In addition, in both countries, the establishments which practice individualised or merit pay nearly all use some form of performance appraisal procedures for some or all their non-managerial employees: 80% for French establishments and 85% for British ones. In order to match the concepts used in our comparative study we restrict individualisation and merit pay to those establishments in which all their non-managerial employees have performance appraisal interviews. The firms that began to adopt these pay systems very soon discovered that they needed to support their reward practices with systems of performance evaluation if they were to avoid accusations of unfair and arbitrary behaviour from their employees. This was especially the case for individualisation, as was shown by the organisational case studies by Linhart et al (1993) and by Eustache (1986).

Box 1. Definitions of *intéressement* and profit-sharing.

Profit-sharing (*intéressement*) was introduced in France in 1957, and enables employees to benefit financially from the financial success of their firm or other aspects of its good performance, such as increased productivity or improved quality. If these objectives are attained, then premium payments are made to employees in the form of collective bonuses. *Intéressement* must be collective in character in the sense that all employees must be eligible, and the total sum distributed must be proportional to their pay. It must also be variable because the sum is linked in advance to measures of the firm’s performance or its profitability. These collective premia, whose payment may not be deferred, are free of fiscal and social charges. Their adoption is voluntary, but the establishment of an agreement on *intéressement* and its method of calculation and distribution must be ratified by employee representatives or directly by a vote of all employees. Agreements setting up *intéressement* spread widely during the 1980s, and especially after new provisions of 1986 which made the system more flexible. Although the number of agreements varies across sectors and between different firm sizes, in 1990, 17% of employees in the traded non-agricultural sector were covered by such agreements.<sup>3</sup>

Similar fiscal measures favouring profit-related pay were introduced in Britain in 1987, and at the peak, around one in five employees were covered. From 1997, the fiscal advantages were withdrawn progressively, and they ceased in 2000 (Poutsma, 2001). Currently, all such systems in Britain are voluntary, and receive no fiscal benefits.

These two types of individual incentives may be contrasted with other types of pay system that provide collective premia. In both countries, these collective premia have generally been used to reward collective performance. Like individual payment-by-results, collective premia are usually based on an observed outcome or level of production. Examples, shown in Box 1, include, in Britain, profit-related pay and profit sharing, which seek to link employee pay to the observed performance of the business, and in France, similar items under the name of ‘*intéressement*’. In both countries, this form of collective incentive has benefited at different

<sup>3</sup> ‘L’*intéressement*: résultat pour 1990 et premières estimations pour 1991’, Premières informations n 284, juillet 1992, Ministère du Travail, de l’Emploi et de la Formation Professionnelle.

times from government support, often in the form of tax incentives. Such measures were still in force in France in 2004, whereas in Britain the last tax incentives for profit-sharing had been abolished by 2000. Other state measures have been used in both countries to encourage employee share ownership and financial participation. However, because of problems of comparability between the two surveys, the present comparison focuses on the most important, that of profit-sharing, or 'intéressement'.

### *Comparison of the use of incentive pay in 2004.*

Table 1 gives an overview of the use of the different types of incentive pay systems by private sector establishments in the two countries. To facilitate comparison, we present figures for both non-managerial employees and all employees including managers because the definition of 'manager' may differ between the two countries. We have also calculated the figures respectively for all individual and all collective incentives used. When we consider the factors influencing firms' choice of incentives, the focus is confined to non-managerial employees because many of the organisational and HR practices surveyed relate to the largest occupational group in the establishment.

It is clear that incentive pay systems are widely used in both countries. Four out of five establishments in France, and three out of five in Britain use forms of incentive pay. However, incentive pay is more widely used in France than in Britain. Moreover, the French firms show a distinct leaning towards individual incentives: 68% of establishments for non-managers in France against 41% in Britain. These results are consistent with those of other French studies by the French ministry of labour on changing patterns of pay systems in general, and in particular on the development of merit pay systems which began in earnest in the mid-1980s (Ministère des Affaires Sociales et de l'Emploi 1988, Ministère du Travail 1992, Sandoval 1996 et 1997, and Barreau and Brochard 2003). There are several reasons for the spread of pay individualisation in France. The slowdown of growth and the increase of competition forced French establishments to improve the control of their labour costs and to improve labour productivity (Eustache 1986). In fact, generalised pay increases, which were costly and provided few incentives, stimulated employers to seek to make their pay systems more effective by means of merit pay, a move facilitated by the end of index-linking pay to living costs. In Britain, there was a parallel movement in the decline of the old systems of payment-by-results in favour of the growth of merit pay, especially among white collar and skilled employees. There is also a higher rate of use of collective incentives for non-managerial employees in France. In effect, 45% of French establishments use profit-related rewards for their non-managerial staff compared with only 23% in Britain. This difference could be due in part to the continued existence of fiscal advantages in France, and their absence from Britain since 2000. Nevertheless, it is likely to explain only a part of the difference: when one includes also managerial employees, the rate of use of profit-sharing in Britain rises to that in France, despite the lack of fiscal incentives. A related point of interest is the view of HR managers interviewed for Réponse who believed that the effects of profit-sharing were mostly favourable for the business. According to them, they made labour costs more flexible, and contributed to employee motivation. As these are views of the people responsible for HR policies within the establishment, there is good reason to take them at face value (see Appendix 3).

At first glance, the greater incidence of merit pay in France appears surprising given that the emphasis on subjective appraisal of individual performance by line managers which is often opposed by unions. Yet it is in Britain that merit pay is least practiced and union power has declined the most, especially in the private sector to which these figures relate. Of note too is that French establishments are also heavier users of payment-by-results systems.

**Table 1: Distribution of incentive pay systems in France and Great Britain in 2004.**

	France	GB	France	GB
Percentage of establishments using these incentive pay systems for at least some categories of their employees:	Non-managers		All employees including managers	
<b><i>Individual incentive pay</i></b>	% of establishments			
Merit pay (with performance evaluations for all employees in the establishments (100%))	42.7	14.8	54.8	16.4
Individual bonuses (payment-by-results)	54.7	32.8	70.7	39.0
Any type of individual incentive pay systems (merit pay or PBR)	68.4	41.0	78.1	48.5
<b><i>Collective incentive pay</i></b>				
Profit sharing / Intéressement	44.8*	23.0	44.8*	44.7
Any type of collective incentive pay systems (including collective bonuses, profit sharing, employee share ownership)	61.6	47.9	65.2	63.9
<b><i>Any type of incentive pay system used</i></b>				
All incentive pay systems (either individual or collective)	81.9	58.7	85.7	71.2
Establishments using simultaneously individual and collective incentive pay systems	47.7	30.2	57.2	41.2

\* In France, profit-sharing schemes (intéressement) must apply to the whole workforce in the establishment: hence the same percentage of establishments for both non-managerial and all categories of employees. (see Box 1).

Source: Réponse and WERS 2004, private sector establishments with at least 25 employees.

### 3. Factors leading to use of incentive pay

There are many currents within social science research which cast light on the factors influencing firms' choice and adoption of incentive pay systems.

#### ***The influence of work organization, technology and skills***

According to agency theory, the introduction of incentive pay can be used to encourage employees to increase their effort (Prendergast, 1999; Lazear 1998). Where effort is difficult to observe, but performance can be measured, then the theory proposes that pay should be tied to individual performance, as in cases where pay is linked to individual output. When both are difficult to measure, either in the current period or at the level of individual employees, then the theory proposes that collective incentives will be more effective than individual ones. This theory also has a number of implications concerning the link between incentive pay and the characteristics of the workplace. For example, in work environments where employees work in semi-autonomous teams, and need to collaborate and share information, it becomes difficult to monitor and measure individual performance.

These arguments apply especially to the use of *objective* measures of individual performance. However, an alternative solution is to use *subjective* evaluations by line managers (Milgrom and Roberts, 1992, Baron and Kreps 1999). This type of evaluation is often able to take account of many complex facets of work and its multiple objectives which are difficult to measure by means of objective data. For example, line managers are often well-placed to take account of the quality of performance, whereas objective indicators are frequently biased towards quantity (Holmstrom and Milgrom, 1991). Line managers can also assess the quality of cooperation within team situations. One can therefore understand the popularity among firms of linking pay increases to performance appraisals by line managers, as in the case of

merit pay. These practices can assist the application of individual incentive pay to a number of the work situations mentioned in the previous paragraph, on condition that line managers are familiar with the performance of each member of their teams.

Subjective evaluation does not resolve all the problems arising out of the interdependence of work, and sometimes monitoring of team members by their peers can be more effective. When interdependence is great within teams, management may find it hard to pin-point potential free-riding among team members, and thus find it hard to discipline those who profit from the team's effort while cutting back on their own, thus diminishing overall team performance. According to this theory, the more performance depends on team cooperation, the more beneficial it is to adopt collective incentives. By rewarding team members equally, management can foster a team spirit, and so encourage peer group monitoring among team members (Kandel and Lazear, 1992). As a result, one may envisage that employers choose from a range of incentive pay systems according to the increasing difficulty of measuring individual performance, from payment by results, through merit pay to group incentive pay.

Other organizational practices may also complicate the measurement and monitoring of individual performance, thus favouring the adoption of either merit pay or collective premia, such as the use of quality circles, multi-skilling and job rotation. Certain characteristics of the workplace may also indicate increased difficulty of supervision, such as the technical sophistication and level of skills required. Indeed, in production processes with complex technology and in small batch production, high levels of skill and varied tasks are frequently required of employees. This would favour the adoption of merit pay or collective incentives. In contrast, payment-by-results more commonly fit with large batch production. As with the level of technology, so with that of skill, the greater the sophistication, the greater the degree of discretion employees have in their work, which would favour use of collective incentives. In contrast, use of individual incentives, such as piece rates and payment by commission, is more likely where levels of skill are lower, such as in many sales occupations. Finally, problems of supervision and monitoring of effort are likely to be greater in large than in small establishments where management has more direct contact with employees. Thus, individual premia would be commoner in small firms and collective incentives in large ones.

### ***Human resource management systems and the effectiveness of incentive pay***

The measurement of performance does not depend solely on the specific characteristics of work organisation. Goal setting theory stresses the importance of a dialogue between management and workers in the establishment of work objectives, whether this applies at the individual or the group level (eg. Locke and Latham 2002). This takes us beyond the simple idea of subjective performance evaluation by management. Such dialogue can foster a greater sense of employee involvement in the objectives. It can also, through the negotiation of objectives, facilitate coordination between individual and organisational objectives. To support this process, firms need to set up systems for defining and measuring clear objectives so that employee effort can be suitably targeted. According to Locke, employees' participation in setting their goals can even increase their degree of identification with them to such an extent that the use of financial incentives becomes unnecessary (Covaleski et al. 1998). Nevertheless, objective setting often involves a degree of negotiation which implies giving something for something, so that the availability of a bonus payment may make agreement of objectives easier to reach. Thus, one would expect the establishment of individual incentive schemes to be accompanied by the use of specific indicators of outcomes. In addition, because collective performance is also the result of individual performance, one can envisage that the use of goal setting and evaluation would also be used by firms to support collective incentives.



Motivational theories offer another perspective on the link between HRM practices and the effectiveness of incentive pay systems. For example, according to expectancy theory (Lawler 1971, and for a recent review, see Ambrose and Kulik, 1999), employees' willingness to supply the effort the firm wants results from a motivational process based on the perception of a link between performance and reward. Individual employees should not only perceive that they can achieve their objectives, as they have the necessary skills and means at their disposal to do so (the effort-performance linkage), but they should also believe that their performance will attract a fair reward (the performance-reward linkage). This may be particularly problematic when based on managers' subjective evaluation and merit pay. Thus if employees' past pay does not reflect their perceived effort, they are likely to be less motivated in the future by the promised rewards, thus diminishing their motivational effectiveness. The effectiveness of performance incentives would thus depend upon the establishment of evaluation procedures designed to assess performance and provide feedback on the achievement of objectives, based on a check list of what has been done and the competences required. These would be designed to make the evaluation criteria explicit and transparent so that employees can relate them to their perception of their performance and judge the fairness of the procedures (Folger and Cropanzano, 1998). Thus, one would expect to see firms establishing systematic performance evaluation procedures when the risk of perceived unfairness is high, as in the case of merit pay.

### ***The influence of the economic environment and market strategies***

The introduction of variable pay incentives can enable firms to adjust to market shocks and to risks that are hard to predict. Instability in product markets and strong competitive pressures can induce firms to adopt variable pay systems which enable them to align their pay costs with market conditions.<sup>4</sup> Firms may also use them to concentrate rewards on their best performing employees. Thus one could expect higher degrees of uncertainty in the firm's environment and competitiveness in its markets to lead to the adoption of individual performance incentives. The type of product market strategy could also influence this choice. Strategies aimed at product and service quality and innovation requiring a high degree of cooperation and information sharing among employees would favour the use of collective incentives and merit pay. In contrast, strategies oriented towards price competition would favour individual output incentives.

### ***The role of unions and the climate of workplace relations***

For many decades, union representation has built on the concept of a common set of conditions that applies to all employees in a particular category. This is what the Webbs described as the 'common rule' (Webb and Webb, 1902). This method stems from two requirements for effective union action. First, unions need to be able to mobilise their members around a common goal. This is what Traxler (1995) referred to as the need to be able to generalise demands which all mobilisation campaigns have to satisfy. All the employees must believe that they have a common aim if the collective action is to be effective. The simpler the norm – the same increase for all – the easier it is to mobilise people. The second requirement is that the rule should be workable at the local level. Thus, the clearer and simpler the rule, the easier it is for employees and their line managers to apply it in the workplace, and the more confidence each will have that it can protect their interests. Individualisation of pay can appear to undermine collective agreements and so threaten future collective bargaining. Thus one would expect a strong union presence in the workplace to influence the type of incentive chosen. A good workplace climate may also make it easier to

---

<sup>4</sup> This was indeed one of the advantages recognised by French HR directors when replying to Réponse.

adopt certain types of incentive pay, notably merit pay where employee confidence in management's good faith is critical.

### ***The influence of industrial relations***

Sectoral influences on the choice of incentive pay systems reflect those of factors which are specific to each sector, as well as those not captured by the other variables used in our analysis. The utilities sector uses continuous process technologies which make it difficult to evaluate individual performance (Touraine, 1966). As a result, firms would be more likely to adopt collective than individual incentives. The construction sector, typified by large numbers of geographically dispersed sites of a transient nature, would seem inauspicious for the use of collective incentives. The finance and distribution sectors include large numbers of employees in sales occupations which would favour use of individual incentives. Use of pay incentives may also be restricted by an organisation's moral values, so that charitable and non-profit organisations could see market-based incentives as conflicting with their goals. In the health and educational sectors, which are often run on a non-profit basis, one could expect to see low use of pay to motivate performance. The presence of private sector firms in these sectors might favour the introduction of performance incentives, especially in Britain, through a demonstration effect. On the other hand, the effect could also run in the opposite direction, that private establishments in these sectors may be influenced by the prevailing norms in the state sector, as by their often non-profit status, and so avoid using incentive pay systems, particularly in France. In addition, 'sector effects' may arise from the institutional organisation of industries through the coordination of the actors within the same industry. Such institutions may lead to the presence of specific sectoral patterns of incentive pay, fostered either directly by collective agreements at industry-level, or indirectly through the sharing of ideas between HR professionals engaged in the same industry organisations. For example, industry employer associations often play an important role in the diffusion of ideas and HR practices through the consultancy services they provide to their members, and through the development of informal networks such as in discussion forums and HR directors' clubs. As a result, one can expect to see contours of isomorphism with regard to pay practices among workplaces within the same sector.

## **4. Statistical method and results**

### ***Methodology***

To measure the effects of these factors on establishments' use of incentive pay systems, we use logit regression which show the probability that a particular pay system will be adopted. This method has the drawback that many establishments may simultaneously use a number both individual and collective incentive pay systems, which is especially the case in France where a majority of establishments do so (see Table 1 last row).

In order to measure the influence of several of the various factors, we have constructed indices derived from the individual questions posed in the two surveys, combining families of questions into a single index. These are explained in the Appendix 1. For example, we have built an index of employee's work autonomy by bringing together a set of questions relating to the percentage of employees working in semi-autonomous groups, their involvement in decisions on work organisation (scheduling of tasks, work rhythms, objective setting, and problem-solving). We also constructed an index of the intensity of employee participation ranging from use of quality circles through to communication systems between employees and management.. The technical intensity of the workplace reflects the degree to which employees in the establishment use new technology in their work. Other indices concern the

degree to which the establishment uses indicators of its economic performance and objectives, and its employee relations climate (such as absenteeism, turnover, and productivity). The intensity of competition takes the questions on the number of competitors, and the degree of product market competition. Finally, WERS and Réponse enable one to assess the influence of uncertainty in the firm's environment through questions such as on the difficulty of predicting demand. All the indices and all variables have been recoded and normalised to take values between zero and one in order to facilitate comparison.

## ***Results***

Before presenting the empirical results, it is interesting to take an overall look at the degree to which each of these factors is present in establishments (Graph 1). Comparing the scores for each factor, a first observation is the broad similarity between the two countries. For example, direct participation, use of systems of performance appraisal, use of business performance and climate indicators, and use of just-in-time, are present to similar degrees in both countries. French and British establishments also appear to face similar levels of competition in their product markets. In contrast, the presence of some factors does differ between the two countries. For example, the degree of work autonomy available to employees in British establishments seems to be higher than that in France. In contrast, French establishments appear to make more intensive use of new technology, and they are also more likely to adopt commercial strategies based on product quality and on innovation, which could explain their greater use of total quality programmes. British establishments appear to be more oriented towards competition on price. Finally, perhaps the biggest difference between the two countries concerns employment relations. The presence of workplace trade union representatives and the coverage of collective agreements is much greater in French establishments than in their British counterparts.

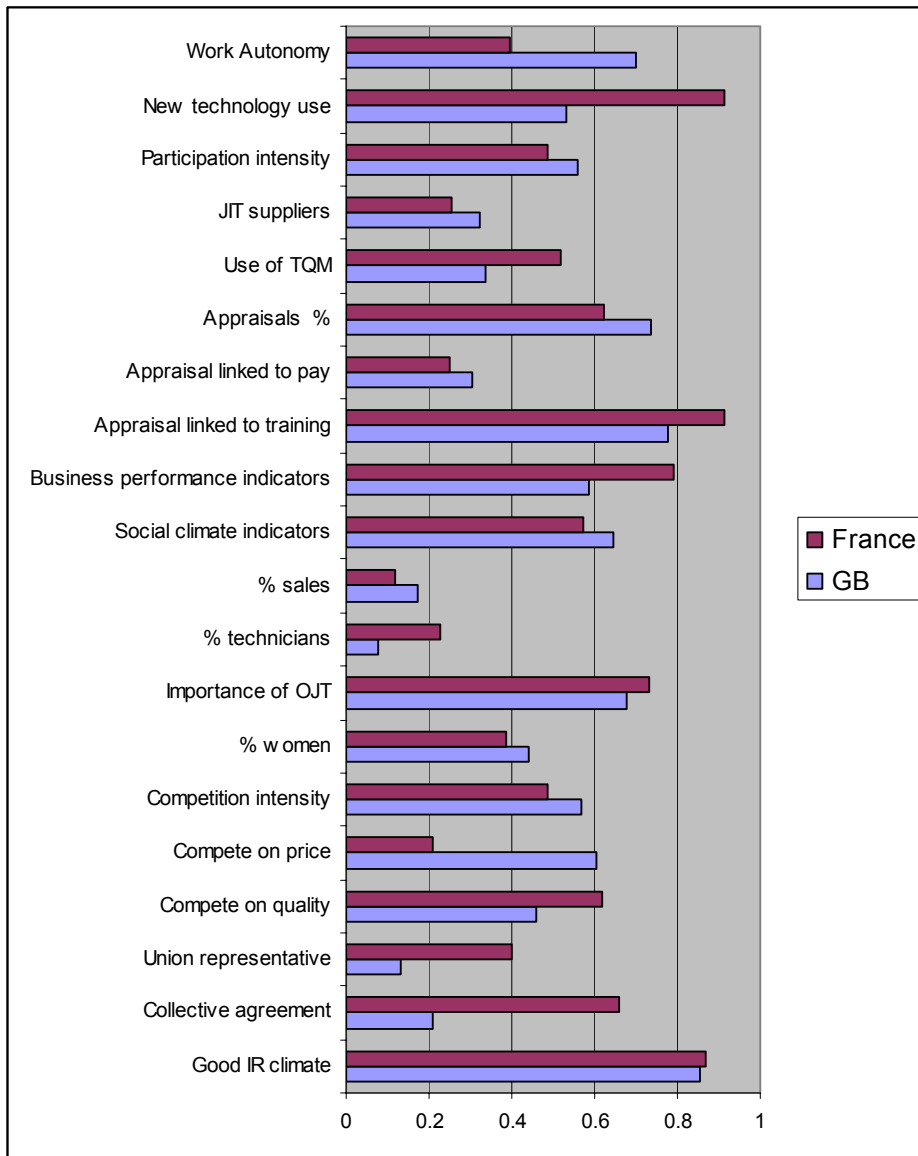
## ***Regression results***

Before launching into an analysis of each factor, one should note the overall influence of organisational and human resources practices on the adoption of incentive pay practices (Table 2). The percentage of variance explained in the regressions varies between 15% and 30% depending on the incentive and the country. Also of note is that among the French establishments there greater numbers of statistically significant coefficients<sup>5</sup>. A first supposition then is that managers in French establishments take more account of the organisational and HR factors when choosing incentive pay systems than do their counterparts in Britain. This impression is reinforced by the generally closer fit between the dictates of the organisational theories just reviewed and regression coefficients in France compared with Britain. Table 2 gives a visual summary of results, and the values of coefficients are given in Appendix 2.

---

<sup>5</sup> One might object that the greater number of statistically significant coefficients for the variables for France could be the result of the larger sample of establishments in France (2400 observations for France against 1100 for Britain). However, the t-statistic, although sensitive to changes in sample size for small samples of under 100, varies very little once sample size is above 120. So the difference in sample size in this case should not be a factor.

**Graph 1: Establishment characteristics: French and British establishments (private sector,  $\geq 25$  employees) mean values of variables (scaled 0-1).**



Source: Réponse, WERS 2004

**Table 2: Comparison F-GB 2004 : private sector establishments, >=25 employees**

Variable description	F PBR	F Merit pay§	F-Profit-sharing	GB PBR	GB- Merit pay§	GB-Profit-sharing
<i>Work organisation</i>						
Work autonomy	-	+++	+	+	-	+++
New technology use	+	+++	+	+++	+	+
Participation intensity	+	+++	+++	+	+	-
Just-in-time suppliers	..	-	-	+	+	+++
Total quality program	+	+	+	-	+	..
<i>Evaluation procedures</i>						
Performance appraisal	+	omise	+++	+	omise	+
Appraisal link to training	+	+++	-	+	+++	+
<i>Use indicators of establishment:</i>						
>> Business performance	+++	+++	+	+	..	+
>> Employment rels climate	+++	-	+	+	+++	-
<i>Employee characteristics</i>						
% sales staff	-	+	-	+	+	+
% technicians	+	+++	+	+	-	+
Importance of experience	-	+	-	..	+	+
<i>Market conditions</i>						
Competition intensity	-	-	-	+	+	-
Compete on price	+	+	+	-	-	+
Compete on quality	+	+	+	+	-	-
<i>Employment relations</i>						
Union workplace rep	-	+	+++	-	-	+
Collective agt coverage	-	+	+	-	-	+
Good empl rels climate	+	+++	+++	-	+	-
<i>Establishment characteristics</i>						
Single establishment	+	-	..	+	-	-
Foreign-owned	-	+	-	+	+++	-
Non-profit status	nd	nd	nd	..	-	..
New establishment (<5 yrs)	+	+	-	+	+	-
Employment size 25-49	+	+	-	+	..	-
Emp size 50-99	+	+++	-	+	..	..
Emp size 100-199	+	+	-	+	..	..
Emp size 200-499	+	+	+	+	..	..
Emp size 500-999	+	+	+	+	-	-
Utilities	+	+++	+	+	+	-
Construction	+++	+	-	+	+++	+
Distribution	+++	+++	+	-	+	+
Transport	-	-	+	+	+	-
Finance	+	+++	+	+++	+++	+
Business services	+++	+++	-	-	+++	+
Public admin (private estabs)	..	+++	-	Nd	nd	-
Eduction-Health (private)	..	..	..	..	+	..
Personal services	+	+++	-	+	+	..
Constant	..	..	..	..	..	..
N	2432	2442	2426	1125	1125	1128
Pseudo r2	0.1332	0.2703	0.1661	0.1331	0.1788	0.1541

Statistical significance: \*\*\* <2%, \*\* <5% ; \* <10%. Private establishments >=25 employees.  
 § with appraisal for all employees in the establishment. Source: Réponse, WERS 2004

### ***Work organisation***

Turning to the influence of work organisation, in France, there is a positive and strongly significant relationship between the adoption of merit pay and employee work autonomy, use of new technology, and intensity of participation (quality circles, problem-solving meetings, company newspapers and so on). All of these factors could be thought to make *objective* measures of individual performance more problematic, hence the position of agency theory that managers should adopt incentives based either on subjective evaluation by line-managers or collective bonuses. The regression results on the relationship between these families of variables and the adoption of merit pay are also consistent with the psychological theory of expectancy according to which this type of incentive, by virtue of its reliance on the use of subjective appraisals by line managers, is suited to environments where objective measurement is difficult to apply. It may often also prove more suitable than collective incentives such as profit-sharing, particularly when employees are unable to see any clear link between their own performance and that of their peers on the one hand, and the aggregate results for their firm on the other (Fakfati,1997). Hence, in these conditions, use of individual incentives based on subjective judgements by line-managers could prove to be a more effective motivator than either of the other systems by avoiding the problems of objective measurement, and those of free-riding in group schemes.

Also consistently with both theories, one can observe that in France profit-sharing is positively related to the degree of worker autonomy, use of new technology, and is strongly associated with the intensity of participation. Some caution is needed in interpreting the positive but non-significant coefficients on the three practices just mentioned. First, the influence of worker autonomy and new technology on profit-sharing may be partly obscured in France by the presence of fiscal incentives. Second, their weakness may be due in part to the number of establishments which use several different types of incentives simultaneously, which would blur any strong statistical relationship. Such caution is further justified by the results for British establishments: there being a positive and significant relationship between profit-sharing, autonomy, and new technology. In that country, use of profit-sharing is the outcome of choices by firms untainted by the fiscal incentives that influence those in France.

Turning to just-in-time practices, which require a great deal of organisational flexibility, we observe a negative and significant relationship in France between their presence and use of individual output incentives, and a positive and significant relationship in Britain with profit-sharing. Total quality programmes, which are often introduced with a tight degree of management control, appear to favour use of individual incentives, whether individual output premia or merit pay, although the level of statistical significance is quite low. In the same direction, we observe that in British establishments, the presence of such programmes appears to discourage use of profit-sharing.

The other striking observation in relation to this set of variables is their generally weaker influence in Britain than in France. In the former country, the coefficients appear to run in the opposite direction to that implied by agency theory: autonomy and use of new technology appear to be positively related to use of individual output incentives. It is as though managers in British establishments have generally adopted a less systematic approach to these questions than their French counterparts.

### ***Performance appraisal procedures***

As mentioned earlier, subjective evaluation by line-managers can overcome some of the limitations of objective performance measures. Its effectiveness can be increased if it is

integrated into a system for determining objectives and monitoring performance for the business as a whole. As expected, the presence of performance appraisals for all employees in the establishment is uncorrelated with that of individual payment-by-results systems. Performance appraisal could not be included among the independent variables for merit pay because it is included in the definition of this variable. On the other hand, the use of appraisal interviews to determine training needs could signal management's desire to reinforce individual employees' skills in order to boost performance, hence the positive and significant relationship between merit pay and use of appraisal for training. In France, the use of systems for monitoring the establishment's business performance and its employee relations climate is related to use of individual incentives, of both kinds, but has no relationship with use of profit-sharing. The relationship between use of such indicators and individual incentives is less pronounced in the British establishments. What does distinguish the two populations of establishments is the use of indicators of employee relations climate, which is significantly associated with payment-by-results in France, and with merit pay in Britain.

### ***Type of establishment***

There is a notable difference between the two countries concerning the influence of establishment characteristics on use of merit pay. In the regressions, the benchmark employment size is of 500 or more employees. The coefficients are positive in France, indicating a greater use of merit pay in smaller establishments, whereas in Britain, large establishments are the ones that use this kind of incentive. The same is true for profit-sharing.

### ***Employee skills***

Turning to the types of skills held by employees in the establishment, there appears to be no relationship between sales activities and use of individual incentives. Nevertheless, in France, establishments in retail and wholesale distribution bear a strongly positive coefficient. On the other hand, use of new technology appears to encourage use of the full range of incentive pay systems in France. This perception is strengthened by the positive relationship between the percentage of technicians in the establishment and the adoption of merit pay. That the jobs in a workplace require little experience or on-the-job training (OJT) signifies the presence of relatively simple work tasks: hence the negative relationship between the need for OJT and the use of payment-by-results, especially in Britain.

### ***Competition***

Considering the pressures of competition on all establishments, one could have expected its nature to have more influence on incentive choice. However, its presence could have been felt indirectly, through its influence on the adoption of certain of the organisational practices described earlier. This would suggest that British and French establishments are seeking to adapt their incentive pay systems to their internal organisational choices rather than to their external environments (such as the intensity of competition, and market strategies).

### ***Union presence***

A strong local union presence could favour either the absence of incentive pay or an emphasis on collective bonuses for reasons discussed earlier. In France, use of profit-sharing is favoured by a strong union presence and by the existence of a good employment relations climate, according to the HR managers interviewed. A good climate also appears to favour use of merit pay, which one can understand because this kind of incentive pay requires a degree of mutual trust if it is to motivate (Folger and Cropanzano, 1998). In Britain, the

relationship between a good climate and use of merit pay is also positive, but not statistically significant.

Before tackling the wider influence of employment relations on incentive pay, it is already clear that choice of incentive system is influenced by the selected variables: organisational factors, technology, the nature of product markets, employment size and sector, even in its reduced detail. Also, this influence is more pronounced in France than in Britain.

### *The influence of employment relations*

The regressions show that certain sectors have a marked influence on the choice of incentive pay. For example, in France, use of merit pay is strongly linked to an establishment's location in the utilities sector or in distribution, whereas in Britain, this is more associated with the finance and business services sectors. Moreover, there are greater numbers of more significant coefficients on sectors in France than in Britain, indicating a stronger sectoral influence on choice of pay system. It is natural therefore to ask whether these sector effects are the result of organisational activity of unions and employers at this level. A first line of enquiry is whether industry collective agreements, which are much more developed in France than in Britain, could explain the differences in incentive use, and particularly, that of merit pay. We have no direct information in Réponse on the content of industry agreements, but one may surmise that unions are likely to oppose individual incentive pay for reasons noted earlier, preferring instead either pay tied to jobs and skills, or collective bonuses. Although the coefficients on union presence and coverage by collective agreements for merit pay were not significant, in other regressions not reported in this paper, we found a negative and strongly significant relationship between union presence in the establishment and use of merit pay. As a result, it seems that employers would not find it easy to get agreement at industry level on the introduction of merit pay, and certainly not in strongly organised industries.

A second line of enquiry to explain the sectoral effects is indirect. In addition to their function in collective bargaining, employers' associations play an important coordinating role, they provide consultancy services on human resource issues to their members, and support informal network activities between managers of different firms. Réponse provides some valuable information on this subject, distinguishing the activities of human resource managers in employer associations at national-, industry-, and at local level, and in HR director forums and clubs. Of all these forms of collective employer activity, those which have the greatest influence on incentive choice are those related to local and regional associations, and the HR director clubs.<sup>6</sup> This is true for all types of incentive pay, and especially for merit pay. A final test of the influence of HR network activity on incentive choice is to correlate these at the level of the industry instead of that of the establishment: are the industries in which certain incentive systems predominate also those in which there is a high degree of employer collective activity. For this we use the more detailed industry classification in Réponse rather than the reduced one from our comparative regressions. This produced a statistically significant correlation of 0.6 between involvement in HR director clubs and merit pay, and of 0.5 for profit-sharing.

We have now the elements needed to explain the relationship between the 'sector effects' in France and the adoption of incentive pay systems such as merit pay. As Eustache (1986) and

---

<sup>6</sup> In fact, in Britain, one can observe the same relationship between participation in the activities of employers' organizations and the adoption of incentive pay systems. Unfortunately for the comparison, WERS does not include a question on HR clubs. Nevertheless, the level of activity in employer organizations is less in Britain than in France.



Linhart et al (1993) observed in the late 1980s and early 1990s, many firms sought to keep down the minimum rates agreed in industry agreements to increase scope for incentive policies at company and plant level. Secondly, they took advantage of the informal networks and the coordinating structures of their employers' associations to improve the design and operation of their new types of incentive systems. These authors noted the almost experimental way in which the incentive systems were introduced: initial individualisation of pay increases led to procedural justice problems, which firms then sought to resolve by improving the procedures for performance evaluation.<sup>7</sup> Considering the relationship between the club and local association activities of HR directors and incentive pay use, we may surmise that they used these networks in order to share their experience of these new systems, and the problems they encountered managing them. Therefore, it seems reasonable to conclude that the greater spread of merit pay practices within particular sectors occurred through the indirect route of the network activities connected to employers' associations which supported the development of common solutions. By limiting the increases in the minimum rates set in industry agreements, employers increased the space within which company level policies to develop incentive pay could take place while at the same time keeping control of pay costs. Thus, we hypothesise that there has been a twofold action: by the formal industry-level institutions in setting minimum rates of pay; and by the local networks which enabled managers to improve the new types of incentive pay systems and to learn how to operate them better.

In this manner, one can explain the strategic position of the 'sectoral effects' on the choice of incentive pay system in France. Returning to the British case, in the absence of the constraining effect of industry agreements, employers have been able to develop their own pay policies and to respond to labour market pressures in a decentralised way, devising solutions directly at company level. The lesser pressure on British firms possibly saved them the need to invent new solutions, but at the same time, it meant that they did not benefit from the experience of collective learning in the management of these new systems. This could explain the generally weaker influence of organisational influence on incentive choice in Britain. The French experience could be seen as illustration of the 'beneficial constraints' for management that can arise from employment relations institutions, and which according to some authors accounted for the success of the German model (Streeck, 2005).

## 5. Conclusion

To summarise, private sector establishments in France use pay for performance incentive systems more widely than do those in Britain. This is especially true for merit pay. At first sight, this observation appeared surprising in view of the common stereotypes of the two economies. We have seen that current theories from personnel economics and human resource management help to explain an important part of the distribution of incentive pay systems *within* each country, but are less helpful for understanding the difference *between* them. This difference can be explained principally by the continued presence of fiscal incentives for profit-sharing in France, and by the higher degree of employer collective action in France than in Britain for merit pay.

---

<sup>7</sup> This interpretation in terms of experimentation is reinforced by results from the panel survey which show that many establishments periodically change their incentive pay systems. Using WERS data for 1990 and 1998, Belfield and Marsden (2003) show that these changes often occurred as part of a search for a better match between the type of pay system and work organisation in the establishment,

An interesting light on the difference between the two countries is shed by the opinions of French human resource managers interviewed by Réponse. When asked about the effects of individualised increases for their organisations, the French managers replied that in addition to motivating staff, they seemed to be fairer than awarding the same increase to all regardless of performance, and that they did not cause serious jealousies among staff (see Appendix 3). This positive judgement of merit pay stands in contrast to the evidence from the early field studies in French firms of the early 1990s (Linhart et al. 1993). These authors found that individualised increases were causing friction between management and staff owing to feelings of unfairness and competition among employees. Subject to the reservation that these two sources of information are of a different nature, one could interpret this change of view as an indication of managers' success in strengthening performance appraisal procedures during the intervening years. Development of more robust and fairer evaluation procedures would have been made possible in France by shared experience and collective learning about pay systems and human resource management methods which were enabled by network activities and the HR clubs. Thus, the collective organisation of employers in France would have given them a more solid base on which to share experience and to develop more effective systems of merit pay.

At the same time, the need to work within the framework of industry agreements and to consult their employees over a wide range of issues may have caused French employers to improve their incentive pay policies and to give more attention to procedural justice issues, and generally to be more innovative in this area than their British opposite numbers. Finally, could the greater social constraints on French establishments explain their higher levels of productivity compared with those in Britain? To answer this question one would need to explore whether the search for a better match between organisational characteristics and incentive pay systems leads to improved economic performance in establishments in the two countries. Work by two of the authors using the panel for earlier WERS surveys provides tentative evidence that better matches lead to better economic performance.<sup>8</sup>

---

<sup>8</sup> Belfield and Marsden (2003).

## 6. Bibliography

- Ambrose, M. L. and Kulik, C. T. (1999) 'Old Friends, New Faces: Motivation Research in the 1990s', Journal of Management, 25: 3, pp. 231-292.
- Baron, J. and Kreps, D. (1999) *Strategic Human Resources: Frameworks for General Managers*, Wiley, New York.
- Barreau, J. and Brochard, D. (2003) 'Les politiques de rémunération des entreprises: écarts entre pratiques et discours', Travail et Emploi, 93, janvier, pp. 45-59.
- Belfield, R. and Marsden, D. (2003) 'Performance Pay, Monitoring Environments, and Establishment Performance', International Journal of Manpower, 24: 4
- Bessy, C., Eymard-Duvernay, F., de Larquier, G. and Marchal, E. (Eds.) (2001) *Des marchés du travail équitables ? Approche comparative France/Royaume-Uni*, PIE-Peter Lang, Bruxelles.
- Covaleski, M. A., Dirsmith, M. W., Heian, J. B. and Sajay, S. (1998) 'The Calculated and the Avowed: Techniques of Discipline and Struggles over Identity in Big Six Public Accounting Firms', Administrative Science Quarterly, Vol. 43, No.2, *Special Issue: Critical Perspectives on Organizational Control*, pp. 293-327.
- Eustache, D. (1986) 'Individualisation des salaires et flexibilité: le cas des entreprises chimiques et leurs ouvriers de production au début des années 80', Travail et Emploi, No. 29, September, pp. 17-42.
- Folger, R. and Cropanzano, R. (1998) *Organizational Justice and Human Resource Management*, Sage, Thousand Oaks, CA.
- Greenberg, J. (1987) 'A Taxonomy of Organizational Justice Theories', Academy of Management Review, 12: 1, Jan. p. 9-23.
- Hall, P. and Soskice, D. (ed) (2001) *Varieties of Capitalism*, Oxford University Press, Oxford.
- Hemenan, R. L., and Werner, J. M. (2005) *Merit Pay: Linking Pay to Performance in a Changing World*, Information Age Publishing, Greenwich, Conn.
- Holmstrom, B. and Milgrom, P. (1991) 'Multitask Principal-Agent Analysis: Incentive Contracts, Asset Ownership, and Job Design', The Journal of Law, Economics and Organization, 7: 2, pp. 24-53.
- Kandel, E. and Lazear, E. P. (1992), 'Peer Pressure and Partnerships', Journal of Political Economy, 100: 4, pp. 801-817.
- Lawler, E. E. III. (1971) *Pay and Organisational Effectiveness: A Psychological View*, McGraw-Hill, New York.
- Lazear E. P. (1998) *Personnel Economics for Managers*, Wiley, New York.
- Linhart, D., Rozenblatt, P. and Voegelé, S. (1993) 'Vers une nouvelle rémunération scientifique du travail?', Travail et Emploi, No.57, pp. 30-47.

- Locke, E. A. and Latham, G. P. (2002) 'Building a Practically Useful Theory of Goal Setting and Task Motivation: A 35-Year Odyssey', American Psychologist, 57: 9, September, pp. 705-717.
- Lorenz, E. and Valeyre, A. (2005) 'Organisational Innovation, Human Resource Management and Labour Market Structure : a Comparison of the EU-15', Journal of Industrial Relations, 47: 4, pp. 424-442.
- Milgrom, P. and Roberts, J. (1992) *Economics, Organisation and Management*, Prentice-Hall, New Jersey.
- Ministère des Affaires Sociales et de l'Emploi (1988) *Bilan Annuel de la Négociation Collective 1988*, p 288, Annexe 56 L'Individualisation des hausses de rémunération. Commission National de la Négociation Collective, Ministère des Affaires Sociales et de l'Emploi, Paris.
- Ministère du Travail, de l'Emploi et de la Formation (1992) L'individualisation des salaires en 1991, *Premières Informations*, no. 291, 11.8.92, Service des Etudes Statistiques, Ministère du Travail, de l'Emploi et de la Formation.
- Poutsma, E. (2001) *Recent Trends in Employee Financial Participation in the European Union*, European Foundation for the Improvement of Living and Working Conditions, Dublin.
- Prendergast, C. (1999) 'The Provision of Incentives Within Firms', Journal of Economic Literature, 37, March, pp. 7-63.
- Roussel, P. (2000) 'Salaire individualisé-Rémunération au mérite: impasse ou avenir', in J. M. Perreti and P. Roussel (Eds.), *Les rémunérations, politiques et pratiques dans les années 2000*, Collection Entreprendre, Série Vital Roux, ch. 5. pp. 81-87, Editions Vuibert, Paris.
- Roussel, P. (2001) 'La Motivation au Travail-Concept et Théories', in P. Louant (Ed.), *Grands auteurs pour la GRH*, EMS, collection Références, Paris.
- Sandoval, V. (1996) 'Dix ans d'évolution des salaires dans le secteur privé', *Premières informations et premières synthèses*, DARES, n° 96-07-28-2, p. 1-4.
- Sandoval, V. (1997) 'Des pratiques salariales diversifiées', *Premières informations et premières synthèses*, DARES, n° 23.1, 1997-06.
- Streeck, W. (2004) 'Beneficial Constraints and Economic Progress', Socio-Economic Review, 2: 3, pp. 405ff.
- Touraine, A. (1966) *La conscience ouvrière*, Seuil, Paris.
- Traxler, F. (1995) 'Two Logics of Collective Action in Industrial Relations?', in C. Crouch and F. Traxler (Eds.), *Organised Industrial Relations in Europe: What Future?*, Avebury, Aldershot.
- Webb, S. and Webb, B. (1902) *Industrial Democracy*, Longman, London.

## 7. Appendices

### Appendix 1. Calculation of indices in Table 2

Most of the variables in Table 2 are taken directly from questions posed in the two surveys. However, for the indices, we calculated average scores across a range of questions which had previously been recoded to values between 0 and 1. This provided an indicator of the intensity of use of a set of practices of a particular type.

In the case of autonomy, we took the replies to questions on employees' autonomy with respect to the definition of work tasks, decision-making in the case of minor breakdowns, job rotation, frequency of management intervention, cooperation, use of semi-autonomous teams and reduction of layers of management. New technology use is composed of questions relating to work with micro-computers, robots, computer-aided design, internet and intranet usage, and whether employees have experienced major technical change. The participation index is based on quality circles, briefing meetings, and a company newspaper or company charter. The use of economic indicators to set establishment objectives and monitor progress at that level include whether the establishment has objectives for profitability, growth, budgeting, cost and quality control. For monitoring employee relations climate we included whether the establishment keeps records of absenteeism, quits, productivity and quality. The intensity of competition is measured in terms of market share ( $\geq 25\%$ ), whether demand is hard to predict, and the margin in price setting. A strategy based on quality is measured by whether establishments respond to competition by the quality of products and services and by innovation.

For employment relations, we took the presence of a union delegate in France, and of a union representative in Britain, and for bargaining coverage, in France we took whether the establishment referred to the industry agreement for calculating premia and bonuses (dsetab ccanc), and in Britain, whether the establishment was covered by a collective agreement on pay (esteward and fcover).

## Details of key derived variables

### Derived variables for incentive pay systems

Incentive pay systems variables were computed for non-managers in both countries: ‘non-cadres’ in France and all except managerial and professional employees in Britain.

<p><b>Réponse</b></p> <p><b>Merit pay</b>  naugmi_merit=(naugmi==1 &amp; (augint==1   augrep==1   augobjind==1   augequ==1   augobjet==1))  merit_pay2=1 if (naugmi_merit==1 &amp; nentret&gt;1)</p> <p><b>PBR and Profit-sharing</b>  For PBR and profit-sharing, Réponse variables nprimi and intere were used directly.</p> <p><b>WERS</b></p> <p><b>PBR</b>  pbr_noncadres = pbr_tech==1   pbr_admin==1   pbr_skill==1   pbr_serve==1   pbr_sales==1   pbr_ssk==1   pbr_usk==1   pbr_all==1</p> <p>fperf_pbr = fperf1 == 1   fperf2 == 1   fperf3 == 1  fperf_pbr_nc=0 if (fperf_pbr==1 &amp; pbr_noncadres==1)</p> <p><b>Merit Pay</b>  fperf_merit = fperf1 == 2   fperf2 == 2   fperf3 == 2  fperf_merit3=0 if (fperf_merit==1 &amp; fmeaspr==6)  fperf_merit3_nc=0 if ( fperf_merit3==1 &amp; pbr_noncadres==1)</p> <p><b>Profit sharing</b>  fprof_nc=fprof if (fnonman&gt;=1 &amp; fnonman&lt;=6)</p>
---

### Explanatory variables

	Réponse	WERS
Derived variables	Original variables	Original variables
Index of work autonomy	(autonom_r + control_r + supniv_r + ordres_r + groupau_r + mobil + coopr_r) / 7	autonomy=1 if (cdesign_r==1 & cdiscret_r==1 & control_r==1 & cteams_r==1 & cvariety_r==1)
Intensity of new technology use	hitech_index = (micro_r + sao + robot + ctech + reseau + intrnet)/6	hitech_index=(ccomput_r + computer_change + tech_change + upgrade_change)/4
Participation intensity	particip_index = (cq04 + ra04 + charte + journal)/4	particip_index=(dcircles + dbrief + journal)/3
Use of indicators and objectives of business performance	busindicators = (objrent + objcroi + objbudg + objcoute + objqual)/5	busindicators=(ktarge_sales + ktarge_costs + ktarge_profits + ktarge_lcosts + ktarge_pty + ktarge_qual)/6
Use of indicators of employment relations climate	climindicators = (abscli + demcli + procli + qualcli)/4	climindicators = (krecper_abs + krecper_turnover + krecper_pty + krecper_qual + ktarge_wsatis)/5
Index of market competitiveness	compmkt_index = (pmarche_25 + prevoir_r + libprix_r)/3	compmkt_index= (pmarche_25 + kdegree_r + kcompet_r)/3
Index of competition on quality	compqual_index = (innovation==1   qual_prod==1   qual_serv==1)	compqual_index=(qual_prod + qual_serv + innovation)/3

Note: original variables were all re-coded to values between 0 and 1, and re-scored so that increasing values were in the same direction.

## Appendix 2. Detailed coefficients from Table 2

Variable description	France		France		France		GB		GB		GB	
	PBR		Merit pay		Profit-sharing	sig	PBR		Merit pay		Profit-sharing	sig
	coeff	sig	coeff	sig	coeff	sig	coeff	sig	coeff	sig	coeff	sig
<i>Work organisation</i>												
Work autonomy	-0.6629		0.9662	***	0.0537		1.3944	+	-0.1296	-	1.9030	***
New technology use	0.2579		0.8671	***	0.0159		0.8304	***	0.4526	+	0.7729	+
Participation intensity	0.3257		1.1034	***	0.7867	***	0.0152	+	0.6470	+	-0.0190	-
Just-in-time suppliers	-0.3227	***	-0.1209		-0.1989		0.0159	+	0.0117	+	0.6256	***
Total quality program	0.2680	+	0.2991	+	0.1303		-0.2839	-	0.0753	+	-0.5981	**
<i>Evaluation procedures</i>												
Performance appraisal	0.2985		na	na	0.5128	***	0.1462	+		omis	0.3349	+
Appraisal link to training	0.1341		0.6169	***	-0.0218		0.4176	+	2.3313	***	0.4574	+
<i>Use indicators of establishment:</i>												
>> Business performance	0.8175	***	0.8943	***	0.4016		0.7109	+	-1.1224	-*	0.0732	+
>> Employment rels climate	0.5270	***	-0.1976		0.2038		0.2763	+	1.2012	***	-0.1768	-
<i>Employee characteristics</i>												
% sales staff	-0.7278		0.7835		-0.2956		0.4689	+	0.4904	+	0.0897	+
% technicians	0.2698		1.0572	***	0.0329		0.0399	+	-0.0815	-	0.2689	+
Importance of experience (OJT)	-0.1060		0.2621		-0.2137		-0.2430	-*	0.1606	+	0.1088	+
<i>Market conditions</i>												
Competition intensity	-0.3307		-0.4192		-0.1461		0.8467	+	1.1602	+	-0.1986	-
Compete on price	0.0145		0.0017		0.1699		-0.5601	-	-0.6377	-	0.5428	+
Compete on quality	0.3186	+	0.0518		0.1977		0.1676	+	-0.4246	-	-0.4561	-
<i>Employment relations</i>												
Union workplace rep	-0.1415		0.0130		0.4658	***	-0.0223	-	-0.2563	-	0.0867	+
Collective agt coverage	-0.1251		0.0501		0.0392		-0.7104	-	-0.1460	-	0.4368	+
Good empl rels climate	0.0555		0.8465	***	0.8380	***	-0.9594	-	0.5361	+	-0.1190	-

Variable description	PBR		Merit pay		Profit-sharing		PBR		Merit pay		Profit-sharing	
	coeff	sig	coeff	sig	coeff	sig	coeff	sig	coeff	sig	coeff	sig
<i>Establishment characteristics</i>												
Single establishment	0.0824		-0.1823		-0.8249	***	0.1462	+	-0.1436	-	-0.4221	-
Foreign-owned	-0.0338		0.0842		-0.0563		0.1527	+	0.6682	***	-0.3427	-
Non-profit status							-1.9543	***	-0.6107	-	-2.2552	***
New establishment (<5 yrs)	0.4275		0.7314	+	-0.5355		0.1602	+	0.3863	+	-0.4283	-
Employment size 25-49	0.3490		0.1674		-0.4474		0.5095	+	-1.1328	***	-0.4761	-
Emp size 50-99	0.2687		0.5572	***	-0.1167		0.0378	+	-1.5266	***	-0.7924	**
Emp size 100-199	0.1991		0.1644		-0.0860		0.2204	+	-1.7163	***	-0.7641	**
Emp size 200-499	0.0526		0.4719	+	0.2493		0.3081	+	-1.0543	***	-0.8123	***
Emp size 500-999	0.2946		0.4194	+	0.1914		0.0676	+	-0.6323	-	-0.4473	-
Utilities	0.4186		1.8335	***	2.1221	+	0.2285	+	0.9451	+	-0.4029	-
Construction	1.2453	***	0.4385		-0.3782		0.0966	+	1.3436	***	0.0597	+
Distribution	0.9651	***	1.0430	***	0.0269		-0.1400	-	0.9060	+	0.0155	+
Transport	-0.0379		-0.2102		0.0055		0.0212	+	0.1027	+	-1.0910	-
Finance	0.5384		1.0390	**	0.9199		1.0767	**	2.0704	***	0.8311	+
Business services	0.6620	***	0.6117	***	-0.3213		-0.1584	-	1.5575	***	0.5867	+
Public admin (private estabs)	-3.3985	***	2.1066	**	-0.9596			na		na	-1.5054	-
Education-Health (private)	-1.4991	***	-1.7474	***	-2.1727	***	-1.6486	***	0.4490	+	-1.3753	*
Personal services	0.4329		0.9801	***	-0.3805		0.0029	+	0.6351	+	-1.3124	*
Constant	-1.7474	***	-5.1990	***	-1.3193	**	-2.0043	**	-5.4100	***	-2.9582	***
Pseudo r2	0.1347		0.2693		0.1668			0.1331		0.1788		0.1541
N	2432		2442		2426			1125		1125		1128

Statistical significance: \*\*\* <2%, \*\* <5% ; \* <10%. Private establishments >=25 employees.  
§ with appraisal for all employees in the establishment. Source: Réponse, WERS 2004



### Appendix 3

Judgements of HR Directors on the effects of merit pay and profit-sharing in establishments with and without these pay systems (row percentages) France.

		No reply	Disagree strongly	Disagree	Agree	Agree strongly
<b>Merit pay:</b>						
> motivates employees	Merit pay	0.6	2.0	6.4	37.4	53.7
	No MP	2.6	6.6	10.2	40.0	40.6
> causes rivalries & damages teams	Merit pay	0.6	23.8	38.8	26.0	10.8
	No MP	2.4	16.3	29.4	31.9	20.0
> fairer than same for all	Merit pay	1.2	14.9	7.0	32.7	57.6
	No MP	2.9	6.4	13.6	35.5	41.6
<b>Profit-sharing:</b>						
> makes pay bill more flexible	Profit-share	0.2	6.6	10.7	32.5	50.1
	No p-s	4.1	6.9	11.6	39.6	37.7
> motivates employees	Profit-share	0.3	5.9	22.6	45.1	26.1
	No p-s	2.6	8.0	21.2	46.6	21.5
> boosts cohesion in the firm	Profit-share	2.0	7.5	22.4	45.5	22.6
	No p-s	3.9	9.7	29.7	40.9	15.8

Establishments with  $\geq 25$  employees. Merit pay based on performance appraisals for 100% of employees in establishment.

Source: Réponse 2004.

**CENTRE FOR ECONOMIC PERFORMANCE**  
**Recent Discussion Papers**

795	Andrew B. Bernard J. Bradford Jensen Stephen Redding Peter K. Schott	Firms in International Trade
794	Richard E. Baldwin Frédéric Robert-Nicoud	Offshoring: General Equilibrium Effects on Wages, Production and Trade
793	Alan Manning	Respect
792	Nick Bloom	Uncertainty and the Dynamics of R&D
791	Richard E. Baldwin Frédéric Robert-Nicoud	Entry and Asymmetric Lobbying: Why Governments Pick Losers
790	Alan Manning Sanchari Roy	Culture Clash or Culture Club? The Identity and Attitudes of Immigrants in Britain
789	Giorgio Gobbi Roberta Zizza	Does the Underground Economy Hold Back Financial Deepening? Evidence from the Italian Credit Market
788	Nick Bloom Raffaella Sadun John Van Reenen	Americans do I.T. better: US Multinationals and the Productivity Miracle
787	Elizabeth O. Ananat Guy Michaels	The Effect of Marital Breakup on the Income Distribution of Women with Children
786	Willem H. Buiter	Seigniorage
785	Gustavo Crespi Chiara Criscuolo Jonathan E. Haskel Matthew Slaughter	Productivity Growth, Knowledge Flows and Spillovers
784	Richard Layard Guy Mayraz Stephen Nickell	The Marginal Utility of Income
783	Gustavo Crespi Chiara Criscuolo Jonathan E. Haskel	Information Technology, Organisational Change and Productivity Growth: Evidence from UK Firms
782	Paul Castillo Carlos Montoro Vicente Tuesta	Inflation Premium and Oil Price Volatility
781	David Metcalf	Why Has the British National Minimum Wage Had Little or No Impact on Employment?

780	Carlos Montoro	Monetary Policy Committees and Interest Rate Smoothing
779	Sharon Belenzon Mark Schankerman	Harnessing Success: Determinants of University Technology Licensing Performance
778	Henry G. Overman Diego Puga Matthew A. Turner	Decomposing the Growth in Residential Land in the United States
777	Florence Kondylis	Conflict-Induced Displacement and Labour Market Outcomes: Evidence from Post-War Bosnia and Herzegovina
776	Willem H. Buiter	Is Numéraireology the Future of Monetary Economics? <i>Unbundling numéraire and medium of exchange through a virtual currency and a shadow exchange rate</i>
775	Francesco Caselli Nicola Gennaioli	Economics and Politics of Alternative Institutional Reforms
774	Paul Willman Alex Bryson	Union Organization in Great Britain <i>Prepared for symposium for the <u>Journal of Labor Research</u> on "The State of Unions: A Global Perspective"</i>
773	Alan Manning	The Plant Size-Effect: Agglomeration and Monopsony in Labour Markets
772	Guy Michaels	The Effect of Trade on the Demand for Skill – Evidence from the Interstate Highway System
771	Gianluca Benigno Christoph Thoenissen	Consumption and Real Exchange Rates with Incomplete Markets and Non-Traded Goods
770	Michael Smart Daniel M. Sturm	Term Limits and Electoral Accountability
769	Andrew B. Bernard Stephen J. Redding Peter K. Schott	Multi-Product Firms and Trade Liberalization
768	Paul Willman Alex Bryson	Accounting for Collective Action: Resource Acquisition and Mobilization in British Unions
767	Anthony J. Venables	Shifts in Economic Geography and their Causes
766	Guy Michaels	The Long-Term Consequences of Regional Specialization