European Foundation for the Improvement of Living and Working Conditions

# Performance-related pay and employment relations in European companies

# Performance-related pay and employment relations in European companies

Findings of the European Company Survey 2009

**Authors**: Christine Aumayr, Christian Welz, Stavroula Demetriades
**Research Manager**: Stavroula Demetriades
**Research Project**: Secondary analysis of European Company Survey 2009

European Foundation for the Improvement of Living and Working Conditions

# Performance-related pay and employment relations in European companies

Wyattville Road, Loughlinstown, Dublin 18, Ireland - Tel: (+353 1) 204 31 00 - Fax: (+353 1) 282 42 09 / 282 64 56
email: information@eurofound.europa.eu - website: www.eurofound.europa.eu

Cataloguing data can be found at the end of this publication.

Luxembourg: Publications Office of the European Union, 2011

doi:10.2806/30124
ISBN 978-92-897-1048-0



The European Foundation for the Improvement of Living and Working Conditions (Eurofound) is an autonomous body of the European Union, created to assist in the formulation of future policy on social and work-related matters. Further information can be found on the Foundation website at www.eurofound.europa.eu

European Foundation for the Improvement of Living and Working Conditions
Wyattville Road
Loughlinstown
Dublin 18
Ireland
Telephone: (+353 1) 204 31 00
Fax: (+353 1) 282 42 09 / 282 64 56
Email: information@eurofound.europa.eu
**www.eurofound.europa.eu**

Printed in Luxembourg

The paper used in this book is chlorine-free and comes from managed forests in northern Europe.
For every tree felled, at least one new tree is planted.

# Contents

# Executive summary

## Introduction

Increased competition and economic crisis has resulted in greater demands for wage flexibility. Greater decentralisation of pay regulation has also enabled employers to seek and attain concessions on more flexibility in pay. The European Company Survey (ECS) 2009 found that a third of European establishments with more than 10 employees use forms of pay dependent on individuals' performance; somewhat less than a fifth use pay elements dependent on the performance of a group. This report looks at the incidence of performance-related pay (PRP) in European establishments and what determines it, with a specific focus on the role of employment relations. Drawing on data from the ECS 2009, over 27,000 interviews with human resources (HR) managers and around 6,000 interviews with employee representatives were included in the research.

## Policy context

European-level competence for regulating pay is generally limited to the field of discrimination and equal pay. However, there is growing interest in financial participation – one form of wage flexibility – as a booster of employee involvement and performance. The 'PEPPER' reports on the promotion of employee participation in profits and enterprise results contributed to a European Commission Communication in 2002 (COM(2002) 364 final). However, in most Member States, the primary focus of pay regulation and wage flexibility in particular is at sectoral and company level, and this forms the focus of this report. As wage setting is dealt with at national level, no EU-level policy exists regarding PRP. However, at national level, some countries, such as Germany or Finland, recently witnessed discussions between the social partners on further decentralising pay setting, down to the company level. The recent European 'Pact for the Euro' contains a provision to link wage developments to productivity. Although neither pay setting linked to productivity developments nor company-level negotiations necessarily imply that wages are related to individual performance, these issues could well go hand in hand. Hence, a future increase in PRP could reasonably be expected.

## Key findings

### Factors distinguishing companies that have set up PRP schemes

Analysis of the ECS data shows that larger establishments, those in foreign ownership, in the financial intermediation or commerce sectors, and those located in some central and eastern European countries are more likely to have a PRP scheme based on the performance of individuals. These variables account for around 75% of the predictive power of the study's estimate models. In addition, the forms of flexibility practices used in the establishment also play a role. There is some (weak) evidence that companies that use fixed-term contracts or have a high proportion of part-time workers do not apply PRP schemes. (No significant connection could be found for the use of temporary agency workers.) Companies tend to use PRP along with such HR measures as working time flexibility, compensating for overtime and teamwork. PRP is more likely to exist in establishments that have previously undergone restructuring. Companies with working time flexibility schemes (in which employees can accumulate hours) are more likely to have an individual PRP scheme than companies that do not grant any working time flexibility.

### Links between social dialogue and PRP

Across Europe, PRP schemes are more likely to be in place in companies that have employee representation in place – in particular, where this is a single form of representation (**either** works

council **or** a trade union) rather than two existing together. (It must be remembered, however, that this reflects in large part the different incidence and forms of such bodies within different countries.) Companies with a wage agreement also have higher odds of having a PRP in place. On this basis, it can be concluded that PRP is an issue that can be dealt with within industrial relations structures at establishment level. At a practical level in establishments, it can be included in the topics covered by social dialogue. There is also no evidence for the derogation powers of collective agreements being linked in any way to the incidence of PRP.

Trade unions are not always supportive of performance-based pay schemes and their attitude is an important factor in the adoption of such schemes. Low and medium levels of trade union density at establishment level increase the possibility of PRP being adopted.

The study also found that when a company does not have an individual-based PRP scheme in place, the employee representative is more likely to report that the climate of social dialogue is 'excellent'. This would suggest that companies where the climate is already good might not need to introduce more formalised structures such as PRP in order to encourage their employees to align themselves with corporate goals. (It may also be that, in those companies without any PRP schemes, employee representatives are happier and feel the climate is excellent.)

This study finds evidence for a higher incidence of PRP in establishments where pay-related social dialogue is practised. PRP is more often to be found when employee representatives have been involved in recent changes of remuneration systems. General aspects of the climate of social dialogue in the establishment (such as provision of information on its financial situation) also affect whether it has a PRP scheme; however, these general aspects account for only a tiny fraction of what other factors explain. Finally, no significant link could be found between the presence (or absence) of PRP and pay-related industrial action at companies.

### Impact of attitudes of employee representatives

There is clear empirical evidence that the incidence of PRP is associated with supportive employee representatives, while establishments with employee representatives who oppose PRP are less likely to have such a scheme. It was not possible to assess, with the dataset, whether the representatives' attitude played a causal – or at least influential – role in the implementation (or not) of a PRP scheme: it is not possible to assess at what point in time opinions were shaped, nor could the process of implementation be monitored in detail. From the interviews with employee representatives, however, it became apparent that they are more supportive of PRP schemes when they are involved in the discussions regarding the setting up of such schemes. They are also more supportive when the employee representative never or seldom receives individual complaints in relation to PRP. The attitude of employee representatives is strongly linked to the country, with a huge variation between countries. The greatest level of support for PRP is in the new Member States and in those EU15 countries in which wage levels are lower (for example, Italy, Greece and Portugal). This suggests a link between national-level pay practices, national-level social partner discussions and PRP-related social dialogue practices at the establishment level.

## Policy pointers

Given the recent trends of linking pay to productivity and the decentralisation of pay setting at company level, the phenomenon of PRP might well be expected to increase. This study has found that – by and large and across Europe – PRP is likely to be dealt with in a social dialogue context.

Although there is evidence that trade unions are generally not in favour of performance-related pay (and in particular for pay linked to an individual's performance), it would appear that if one wants to promote PRP schemes at the workplace, the early involvement of employee representatives in setting up the scheme can facilitate the process, as can a general tradition of wage-related bargaining.

**Table 1: Classification of countries into industrial relations regimes**

| Regime | Country code | Country |
|---|---|---|
| **North** | DK | Denmark |
| | FI | Finland |
| | SE | Sweden |
| **Centre-West** | BE | Belgium |
| | DE | Germany |
| | LU | Luxembourg |
| | NL | Netherlands |
| | AT | Austria |
| | SI | Slovenia |
| **South** | EL | Greece |
| | ES | Spain |
| | FR | France |
| | IT | Italy |
| | PT | Portugal |
| **West** | IE | Ireland |
| | MT | Malta |
| | CY | Cyprus |
| | UK | United Kingdom |
| **Centre-East** | BG | Bulgaria |
| | CZ | Czech Republic |
| | EE | Estonia |
| | LT | Lithuania |
| | LV | Latvia |
| | HU | Hungary |
| | PL | Poland |
| | RO | Romania |
| | SK | Slovakia |

# Introduction

## Background

Increased competition has created a certain pressure for flexibility with regard to wages. It has also affected wage regulation, particularly through collective bargaining and pay outcomes. Over the past decade there has been a trend towards the decentralisation of pay regulation, enabling individual employers to attain more flexibility as regards pay on the grounds of both cost savings and enhanced performance. This has given rise to greater pay differential both within companies (in the case of bonus-receiving sales staff vs administrative staff) and between companies (one paying bonuses and the other not).

Previous studies (Arrowsmith and Marginson, 2009) have shown that this decentralisation in multi-employer bargaining systems has broadened the scope for wage flexibility and increased the incidence of PRP systems at various levels. PRP schemes may operate at individual, team, workplace or company levels. Such forms of motivation and reward might merely displace traditional pay systems, such as seniority pay, in order to more closely align employee earnings with company performance or ability to pay. In the recent economic crisis, for instance, unions in the German automotive sector were compensated by company shares as part of their pay deals. This interested a growing number of employers who thought that they could avoid paying high interest rates or making excessive profit payments to the private equity industry by turning their workforce into shareholders who had a stake in their company's long-term business success (Jacobi, 2010).

The issue of PRP or, more broadly speaking, any form of pay innovation has been studied by various research disciplines. The economic literature has dealt with the issue within the 'principal-agent' problem, which tries to solve the question of how to incentivise and align actors in order not to incur excessive monitoring costs. Human resources literature has also looked into incentivisation (such as bonuses) and motivation (merit pay) and tried to find out more about the strategic links between the actors. Industrial relations literature has investigated trade unions' concern about marginalisation, but has also stressed the possibility that share-owning may give unions an additional voice in negotiating and implementing various forms of PRP (Arrowsmith et al 2008). Within the scope of this report, this study draws on arguments presented in the different strands of literature, with a particular focus on industrial relations.

## Management motives and unions' views and objections

Successful as well as struggling companies are increasingly looking to tie wages more closely to performance through different forms of PRP systems. Management has several motives for this, which are of course related to each specific company or sectoral environment. The following broad objectives are listed in the literature for the implementation of PRP schemes (Arrowsmith et al, 2008; Marginson et al, 2008).

- **Performance management**: schemes can be designed to reinforce communication of business goals and to ensure management's effort in monitoring strategic goals.
- **Stakeholder reward**: Profit sharing is the primary example of this, but there are also merit-based schemes. Alongside the objective of 'fair-share capitalism', they can also be used to induce commitment.
- **Fostering productivity**: PRP schemes can be used to improve work efficiency – for instance, through retaining top performers or incentivising the acquisition of skills or work effort (Engellandt and Riphahn, 2010). Specific schemes to support certain areas such as sales or assembly line

production could be tailored to link employees' effort with the quantity (or quality) of output required.

- **Cost control and cost-cutting motives**: Variable pay schemes can be designed to be self-financing and implemented together with otherwise low basic pay. A further motive here could be to align the variable element of the pay with the company's profits.
- **Industrial relations**: Industrial relations literature has shown that, in some cases, the implementation of PRP might be a specific strategy to undermine union influence.

In many countries negotiations at intersectoral or sectoral level set out either the framework for PRP schemes or allow openings for further negotiations at company level. Employee representatives are therefore given an important role in negotiating PRP at company level – depending, of course, on the national context of industrial relations within which the bargaining takes place.

Marginson et al (2008), following Heery (2000), summarise several reasons why unions often tend to be against PRP schemes.

- Such schemes may imply a threat to the security and stability of earnings.
- Schemes based on individual performance can demotivate teams and undermine teamwork.
- They can widen pay gaps between individuals, teams or part of the workforce and might therefore undermine collective organisation.
- They might undermine unions' role in collective bargaining.

The most recent comprehensive investigation on the links between PRP schemes, industrial relations and collective bargaining is an international research project led by Paul Marginson. It draws on in-depth comparative company case studies in selected sectors and countries and makes the following key finding:

> *Unions tend to dislike performance pay schemes (PPS). But the research evidence is that, even under PPS, they can retain a substantial role in bargaining, over the total size of the pay increase available from companies, and over the way it is distributed. But unions' influence over [variable pay schemes] depends on the way in which it is implemented. They tend to have little say over company-wide profit sharing mechanisms, where the sums are set centrally, or over one-off bonus payments. But they can have a significant effect on individual performance-related pay schemes, and on local output or sales bonus arrangements. While unions can reconstitute traditional collective bargaining for the world of PPS, management can use PPS to take control of substantial amounts of pay that were previously the subject of union negotiation.*

## Objectives

The prime objective of this report is to contribute to the discussion on links between PRP and employment relations. It seeks to empirically assess whether there is any evidence across European establishments that different forms of industrial relations structures and practices are also associated with the existence of PRP. With this objective, this report extends the discussion in the overview report of the 2009 European Company Survey (ECS) (Riedmann et al, 2010) in two ways.

First, it considers the links within a multivariate framework, which captures determinants of performance-related PRP and in this way simultaneously takes into account various factors that

influence PRP with the aim of making inferences. For instance, the incidence of both PRP and employee representation are closely linked to company size. The methodology can then control for size effects and look, all things being equal, into whether establishments with a certain form of employee representation are more or less likely to have performance-related pay, than others.

Beside the detailed consideration of variables related to industrial relations structures and practices, the framework set out in this report interprets PRP as being part of a 'bundle' of human resources practices. In this sense, it also controls for the incidence of other practices, and allows more detailed insights into the complementary nature or substitution of various company-level flexibility practices, which could also be linked to differences in the composition of the workforce. This results in a more embracing model of determinants of performance-related PRP.

## Research questions

The main objective in this report is to analyse the implementation of performance-related PRP at workplace level against data on employment and social dialogue. However, several other factors must also be considered, such as the characteristics of the establishments or human resource practices.

The ECS shows that approximately 40% of establishments in Europe with more than 10 employees have introduced a PRP scheme for some groups of workers other than top management. This is related to the performance either of an individual or a working group. Within this report, the following three main questions will be investigated.

- Which factors distinguish those companies that have set up any type of PRP schemes from those that have not?
- Are there any significant links between industrial relations structures and social dialogue practices at establishment level and the incidence of PRP?
- Do the attitudes of employee representatives on PRP have a significant impact on whether such a system has been put in place?

This report will also seek to establish to what extent the above questions differ for group-based and individual-based schemes. Do we, for instance, find differences in the case of broad-based schemes – that is, those which cover major parts of the workforce? Can we detect differences across different types of industrial relations regimes?

These research questions will be answered in a quantitative way, using logistic regression (to be described in more detail later), complemented by and interpreted against evidence from the recent research literature.

## Definition and delimitation of scope

In line with the definition adopted in the ECS, this study uses the term 'performance-related pay (PRP)' for all those elements of pay that meet the following conditions:

- on top of basic salary;
- not (necessarily) paid frequently;
- either linked to the performance of an individual or group, or tied to the company's success.

The ECS therefore distinguishes between two broad categories: PRP and financial participation schemes (FPS). Figure 1 is a graphical depiction of the different forms of PRP schemes and their coverage within the ECS.

PRP can be assessed either on 'objective' criteria such as payment by piece rates or quality pieces (which is then often termed 'payment by results') or on subjective criteria such as management appraisal – which results in appraisal-based pay. The ECS, however, does not ask about this last level and only asks about 'performance related to the individual or a working group'. The form of this can be affected by different management objectives, which will be discussed in more detail below.

The ECS allows researchers to trace only whether PRP is allocated individually or collectively. This report will use the questions set out in Table 2 – in particular, from the management questionnaire – to determine the dependent variables of interest.

**Table 2: Dependent variables for the incidence of PRP**

| | | |
|---|---|---|
| **MM454** | **PRP** | Do any of your employees – except for those in top management – receive specific elements of pay that depend on the performance of the individual, a working group or the department? These elements can be either cash or in the form of shares of the company. |
| **MM455** | **IPRP** | Approximately what proportion of your workforce receives specific elements of pay that depend on the performance of the individual? |
| **MM456** | **GPRP** | Approximately what proportion of your workforce receives specific elements of pay that depend on the performance of the team, working group or department? |

*Note:* 'IPRP' = individual performance-related pay; 'GPRP' = group-based performance-related pay.

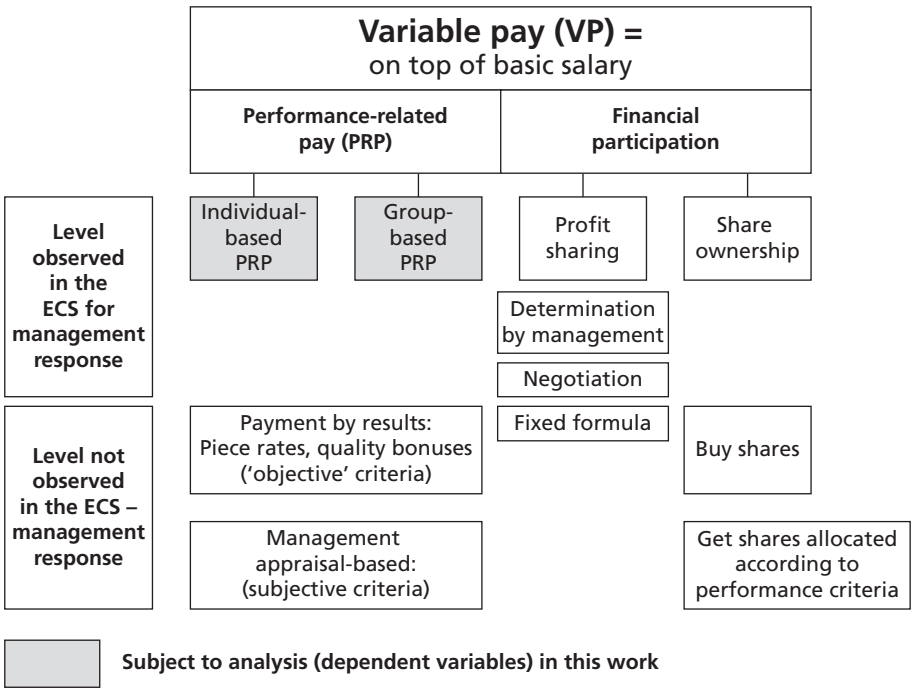
*Source:* ECS 2009.

Financial participation schemes can be divided into two groups: profit-sharing schemes and share ownership.

- **Profit-sharing schemes** link the companies' performance to individual pay and may take different forms of distribution, such as fixed rates or ad hoc distributions, including or lacking employee representatives' involvement and negotiations.
- **Share-ownership** gives shares to employees either through voluntary purchase, mostly at preferential conditions, or through some kind of share allocation mechanism. Again, this may or may not be subject to negotiations and might equally overlap with other forms of appraisal-based mechanisms, so that there is no clear-cut line between PRP and financial participation.

Figure 1 summarises these concepts. As Eurofound has conducted research on financial participation in recent years (Pendelton and Poutsma, 2005; Welz and Fernandez-Macías, 2007), the focus of this study will be on PRP and its two subgroups.

**Figure 1: Overview of types of PRP**




*Source:* Authors' depiction, based on ECS 2009.

## The ECS data

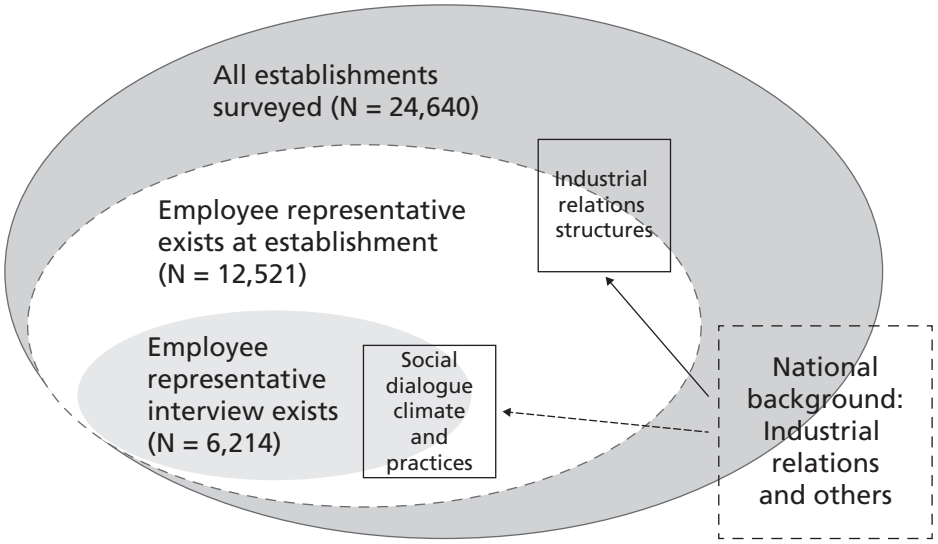
### Structure of the survey data

The 2009 ECS was conducted by the European Foundation and was preceded by the 'European establishment survey on working time and work-life balance', which took place in 2004–2005. The ECS was carried out in the EU27 as well as in the then accession countries (Croatia, the former Yugoslavian Republic of Macedonia and Turkey), giving a complete, comparable and representative picture of flexibility practices and social dialogue across European establishments. This study is based on interviews with more than 27,000 human resources managers and more than 6,500 employee representatives, where available, from the same companies.

Since employee representatives were not always available, the number of interviews with them is considerably smaller. Figure 2 depicts the structure of the ECS, which also influences the research design.

According to our framework, we had to bear in mind that the variables we observed were set at different levels. So, for instance, we can establish a link between the existence of employee representation and PRP only when considering the full sample of establishments at our disposal, while social dialogue climate and practices require the existence of an employee representative at the establishment level and information gained by interview. For this reason, we estimate separate models for both the sample where interviews with employee representatives exist, and across the full sample. Finally, the sample was further restricted to the EU27. The main sample of reference and interest will be the one where interviews with employee representatives exist, so their attitudes as well as social dialogue climate and practices can be considered.

**Figure 2: Structure of and samples within the ECS**




*Note:* 'N' here refers to the total sample of the EU27.

### Strengths and limitations

In relation to this particular research, the strength of the ECS is its large sample, which is representative for establishments with over 10 employees. In addition, this large sample allows researchers to explore patterns of PRP – not just according to organisational features such as size, class and sector, but also according to the use of other forms of functional and numerical flexibility, industrial relations processes and performance outcomes.

Alongside these strengths are a number of shortcomings which need to be addressed.

First, the main variable of interest (performance-related pay) is not available at a sufficient level of detail, as the data do not distinguish between payment by results and appraisal-based pay. These forms are likely to have resulted from different management motives (such as cost control motives in the former and reward and retention aspects in the latter) and might result in different reactions from the trade union/employee side. It is also not clear whether the schemes had been set up systematically and for regular usage or in an informal way and for certain purposes only. In that sense, the analysis will be blurred. Instead, a distinction can be made between individual and collective forms of PRP.

Furthermore, it is not possible to distinguish within the data which particular groups of employees receive the PRP and which groups do not. However, information is available on whether the schemes are broad or narrowly based.

The survey does not include the level of PRP in relation to basic pay and hence lacks a measure for what proportion of earnings are at stake. This could have an impact on employee representatives' opinion about the schemes.

The validity checks of the responses from management versus employee representatives showed that in the case of PRP, in approximately 30% of cases employee representatives report that no PRP scheme exists when management says there is at least one, and the other way round. Reasons for

this could be that not all actors are fully informed about the existence of PRP schemes or they might wrongly identify non-PRP schemes as PRP schemes. Another reason could be that the question posed to management on individual PRP (MM454) included a reference to share-ownership schemes, while the one posed to employee representatives (ER 350) did not. This study dealt with this issue by including only the information on employee representatives' attitude to PRP, which was asked both of those who said a PRP scheme was in place and those who said none was in place.

Data on the rationale and level of employee (representative) involvement are not available.

# 1 PRP and employment relations: Descriptive statistics

The following section gives an overview of basic descriptive statistics with regard to PRP and industrial relations. These statistics are 'average' and bivariate: they report on the picture across all EU27 Member States, but without taking into account further differences in relation to countries, company sizes or many other factors that could serve as an explanation for the existence or otherwise of PRP in an establishment. In this sense, they shall serve as a first introduction, but will be complemented by further multivariate analysis in later sections.

When regarding the full sample of establishments within the ECS in the EU27 (24,640 establishments, each with more than 10 employees in total), it can be seen from Table 3 that in 37% of these establishments individual PRP is reported, while in 23% a pay scheme related to performance of a group is reported. Around half the individual PRP schemes within this sample are broad-based – in other words, they cover more than half the workforce – while more than half the group-based schemes are broad-based.

The incidence of both forms of PRP is even higher in the sample where interviews with employee representatives took place: 43% of these 6,214 establishments have an individual PRP scheme while 28% have a group-based scheme. Roughly half of each of these schemes is broad-based.

**Table 3: Incidence of PRP**

| | Proportion having any individual PRP scheme | Proportion having any group-based PRP scheme | Total number of establishments |
|---|---|---|---|
| **Full sample** | 37% | 23% | 24,640 |
| **Sample where interviews with employee representative exist** | 43% | 28% | 6,214 |
| | **Broad-based individual PRP scheme** | **Broad-based group PRP scheme** | |
| **Full sample** | 19% | 13% | 24,640 |
| **Sample where interviews with employee representative exists** | 21% | 15% | 6,214 |

*Source:* ECS 2009; sample: EU27.

PRP is more often to be found in establishments with some kind of employee representation than within establishments without any representation. Where employee representation exists, PRP is more often associated with single-channel forms of representation (where either a union or a works council exists) rather than with dual forms of representation. As Table 4 clearly shows, there are only minor differences with regard to the form of PRP.

**Table 4: PRP and type of employee representation**

| | | Individual PRP scheme | No individual PRP scheme | Group-based PRP scheme | No group-based PRP scheme |
|---|---|---|---|---|---|
| **Full sample** | **Single-channel representation** | 38% | 33% | 38% | 34% |
| | **Dual-channel representation** | 19% | 15% | 21% | 15% |
| | **No representation/Don't know** | 43% | 52% | 41% | 51% |
| | | **100%** | **100%** | **100%** | **100%** |
| **Sample where interviews with employee representatives exist** | **Single channel** | 65% | 66% | 64% | 66% |
| | **Dual channel** | 35% | 34% | 36% | 34% |
| | | **100%** | **100%** | **100%** | **100%** |

*Note:* 'Type' refers to the establishment level. 'Single channel' is either a works council or trade union. 'Dual channel' means a works council and a trade union are present at establishment level.

*Source:* ECS 2009; sample: EU27.

Table 5 summarises the incidence of PRP and the incidence of collective wage agreements related to an establishment at various levels. The majority of PRP schemes are in establishments where collective wage agreements apply:

- 41% of individual PRP schemes exist in establishments where collective wage agreements apply which have been set in a multi-employer bargaining framework;
- 27% of establishments with an individual PRP scheme have an agreement at establishment or company level (single employer);
- 33% of establishments with individual PRP schemes have no collective wage agreement. Group-based schemes are not different in this regard from individual-based pay schemes.

However, there is a slight difference when comparing the sample of 'all establishments' to the sample where interviews with employee representatives exist. In the latter case, PRP schemes are considerably less prevalent in establishments without any agreement .

**Table 5: Incidence of PRP and collective bargaining**

| | | Individual PRP scheme | No individual PRP scheme | Group-based PRP scheme | No group-based PRP scheme |
|---|---|---|---|---|---|
| **Full sample** | **Single-employer bargaining** | 27% | 23% | 27% | 24% |
| | **Multi-employer bargaining** | 41% | 40% | 40% | 40% |
| | **No agreement/NA** | 33% | 37% | 33% | 36% |
| | | **100%** | **100%** | **100%** | **100%** |
| **Sample where interviews with employee representatives exist** | **Single-employer bargaining** | 34% | 30% | 36% | 30% |
| | **Multi-employer bargaining** | 52% | 53% | 51% | 53% |
| | **No agreement/NA** | 14% | 17% | 13% | 17% |
| | | **100%** | **100%** | **100%** | **100%** |

*Source:* ECS 2009; sample: EU27.

The following figures stem mainly from the employee representatives' questionnaire, while the form of PRP is taken from management responses. Table 6 shows that the majority of PRP schemes (around three-quarters) can be found in establishments with low or medium levels of trade union representation. Only around one-quarter of PRP schemes are found in establishments with a high level of trade union representation. In contrast to this, one-third of establishments without an individual PRP scheme record a high level of trade union membership. This suggests some possible connection between the extent of trade union membership in an establishment and the incidence of PRP. The figures do not differ greatly between individual and performance-based pay.

**Table 6: PRP and trade union membership at establishment level**

| | Individual PRP scheme | No individual PRP scheme | Group-based PRP scheme | No group-based PRP scheme |
|---|---|---|---|---|
| **Low level of trade union membership (less than 20%)** | 30% | 29% | 30% | 30% |
| **Medium level of trade union membership (from 20% to less than 80%)** | 44% | 38% | 43% | 40% |
| **High level of trade union membership (80% to 100%)** | 25% | 33% | 27% | 31% |
| | **100%** | **100%** | **100%** | **100%** |

*Source:* ECS 2009; sample: EU27 where interviews with employee representatives took place; N = 6,214.

Table 7 summarises the attitudes of employee representatives towards PRP in general and the form of PRP scheme as reported by management. Where any form of PRP scheme exists, 46% of employee representatives report that they support the scheme. In contrast, where no scheme is in place, only between 40% and 42% of employee representatives report they are generally supportive. The difference between these groups is not substantial, yet if the proportion of employee representatives who are opposed to PRP schemes is studied (between 18% and 23%), the difference becomes more pronounced.

**Table 7: Employee representatives' view of PRP**

| | Individual PRP scheme | No individual PRP scheme | Group-based PRP scheme | No group-based PRP scheme |
|---|---|---|---|---|
| **Supportive** | 46% | 40% | 46% | 42% |
| **Opposed** | 18% | 23% | 18% | 22% |
| **Neutral, don't know** | 36% | 37% | 36% | 37% |
| | **100%** | **100%** | **100%** | **100%** |

*Source:* ECS 2009; sample: EU27 where interviews with ER exists. N = 6,214.

Assuming that the opinion of employee representatives might have been shaped by whether and what stage they had been involved in the scheme, and whether they receive complaints about PRP, Tables 8 and 9 provide further evidence. However, it must be noted, as mentioned in the section on 'limitations of the survey', that the answers of employee representatives are not fully comparable with those of management, as they have reported differently on the incidence than management. For this reason, the figures will be reported only in this section.

Table 8 shows that employee representatives are more supportive of a scheme if they have been involved in the preliminary discussion about whether to introduce it than when they have been involved at later stages, or not at all. Opposition is particularly widespread among employee representatives who were not involved at all by management. (Relevant test statistics – Pearson's chi-square and Cramer's V – show that the association between the two variables is significant, but not particularly strong.)

**Table 8: Involvement of employee representatives in setting up PRP schemes, and their views**

| Involvement in the establishment of PRP | Supportive | Opposed | Neutral, don't know | All |
|---|---|---|---|---|
| **In the discussions on whether or not to introduce** | 64% | 8% | 27% | **100%** |
| **When decisions on practical details were being made** | 59% | 9% | 32% | **100%** |
| **After decisions on the shape of the system had been made** | 46% | 16% | 38% | **100%** |
| **None at all** | 35% | 21% | 44% | **100%** |
| **Don't know/No answer (spontaneous)** | 52% | 8% | 40% | **100%** |
| | 55% | 12% | 34% | **100%** |

*Source:* ECS 2009; Sample: EU27 where interviews with employee representative exists. N = 3,107 (this is the sample in which employee representative reports the existence of 'any' PRP scheme). Pearson's chi-square: 180 (8 df; Assymptotic sign. 2 sided: 0.000). Cramer's V: 0.170.

A supportive attitude of employee representatives is furthermore reported more often when individual complaints in relation to PRP occur seldom or never. Not surprisingly, the proportion of employee representatives opposing PRP is highest among those who often receive individual complaints (Table 9).

## Table 9: Individual complaints of employees related to PRP and employee representatives' views

| | | Supportive | Opposed | Neutral, don't know | |
|---|---|---|---|---|---|
| **Individual complaints in relation to PRP** | **Often** | 39% | 30% | 31% | **100%** |
| | **Seldom** | 56% | 9% | 35% | **100%** |
| | **Never** | 60% | 6% | 33% | **100%** |
| | **Don't know/no answer (spontaneous)** | 34% | 18% | 47% | **100%** |
| | | 55% | 12% | 34% | **100%** |

*Source:* ECS 2009; sample: EU27 where interviews with ER exists. N = 3,107 (= sample in which employee representative reports the existence of 'any' PRP scheme). Pearson's chi-square: 248 (6df; Assymptotic sign. 2 sided: 0.000). Cramer's Vi: 0.200.

# 2 Determinants of PRP: Conceptual framework and methodology

## The conceptual framework

Within the scope of this work, this study will discuss and further empirically assess the determinants of PRP schemes in general, and certain forms in particular, within the context of the following framework. This framework has been based on the investigation of the recent literature on PRP in general and PRP in particular. More detailed discussions of hypotheses and their derivation from this literature will follow when the empirical results are presented.

**Figure 3: Broad factors influencing the incidence and type of PRP – initial conceptual framework**

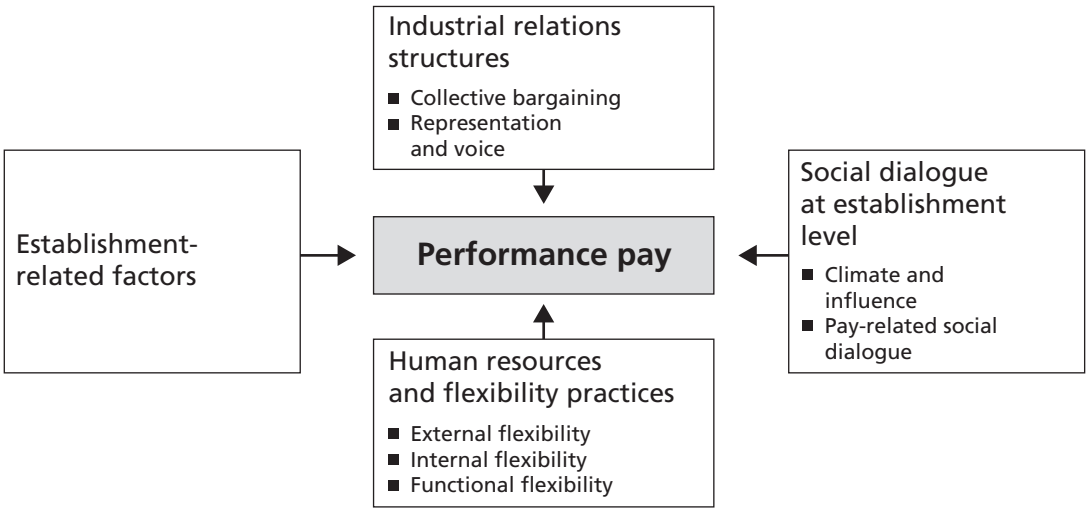



Figure 3 shows the factors that the authors initially hypothesised had an impact on determining the existence of various forms of PRP scheme at the establishment level. This study distinguishes between:

- establishment-related factors;
- the workforce composition of the establishment;
- company practices with regard to flexibility;
- structures for social dialogue within the establishment, but reflecting the national systems of industrial relations;
- the social dialogue climate and practices at establishment level.

The variables these factors comprise already reflect data availability from the ECS for the following empirical assessment.

**Establishment-related factors** comprise largely those variables that describe the nature of the establishment, such as different forms of ownership and sector or its economic situation. Apart from stressing the challenge unions face from a segmentation of employee interests, the literature on PRP has not yet, to the authors' knowledge, looked at the question of whether the composition of the workforce in general, and the predominance of certain subgroups of employees within a company in particular, is related to firms having implemented any form of PRP. An exception is Barth et al

(2008a), who develop a theoretical concept for the link between the risk aversion of employees and PRP and who also relate this to different degrees of unionisation.

**Workforce composition** summarises workforce-related variables, such as an establishment's proprotions of female workers and highly skilled workers, temporary agents and fixed-term employees. The latter two may also serve as an indication of companies' external or contractual flexibility policies.

**Human resources and flexibility practices** comprises company measures for internal flexibility and work organisation: whether overtime is practised and how it is compensated, working time flexibility, training and teamwork as well as evidence on potential recent restructuring.

**Industrial relations structures** summarises such variables as the existence and type of employee representation, coverage of employees by collective agreements, the level at which collective agreements are negotiated, whether any derogation from the collective agreement can take place and trade union membership. Industrial relations structures are obviously determined by national and, to a certain extent, by sectoral industrial relations systems (Bechter et al, 2011). Thus, the variables within this block reflect, to a greater extent, structures of country or sector systems of industrial relations, rather than genuine establishment attributes. For this reason, this block has to be investigated and interpreted with some caution.

**Social dialogue climate and practices** comprises information on these factors at the establishment level. With regard to PRP, the survey specifically asked for the attitude of employee representatives on PRP. More general information also includes subjective assessments of the industrial relations' climate by employee representatives, management attitude towards the employee representative and whether employee representatives have been involved in recent changes of the remuneration system.

Later in the assessment, we will empirically estimate the following questions:

- to what extent these blocks of variables have a joint impact on the incidence of different kinds of performance-related PRP schemes;
- to what extent the various determinants differ between different forms of performance-related PRP systems.

The difficulty within this framework, in particular in terms of industrial relation structures, is that it is determined on a level higher than that of the establishment and so reflecting, for example, sectoral or national practices. In addition, the authors do not have information on legal regulations or specific practices of bargaining with regard to performance-related PRP across Europe. In this sense, the results regarding industrial relations structures have to be interpreted with some caution.

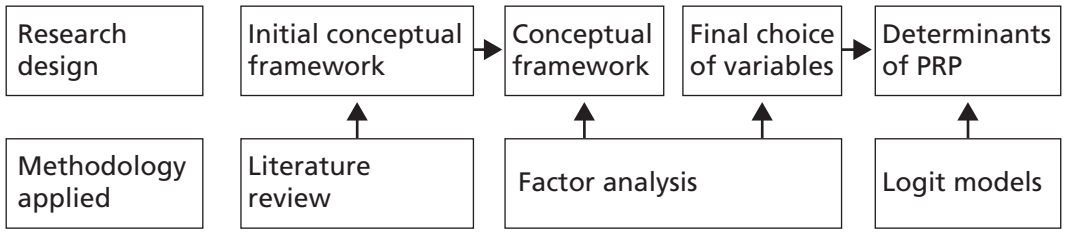
## Methodology at a glance

Figure 4 gives a broad overview of the research design in relation to the methodologies applied. The preliminary conceptual framework, which has been described earlier, will be slightly revised following the results of a factor analysis of the independent variables, which also allows us to make a final choice of variables.

In order to establish the link between the incidence of PRP and the above discussed factors, this study makes use of logistic regressions, also called logit models. This type of model is applied in

the case of binomial outcome variables, which take only the values of 0 or 1. Here, the dependent variables to be explained in separate models are the incidence of individual performance-related pay (IPRP: 0 or 1) and group-based performance-related pay (GPRP: 0 or 1) (compare with Table 2).

**Figure 4: Methodology at a glance**




*Note:* Independent variables or predictors are summarised in Table 10. A detailed description on how these variables have been generated from the ECS is given in Table A2 in Annex 1.

Before beginning to make estimates of the determinants of PRP by using logit models, we stepped back and conducted a factor analysis among the dependent variables identified. This allowed us to assess whether it would be better to take some variables into account jointly as they are 'quite close' to each other. The analysis also allowed us to 'test' whether the blocks of variables identified in the preliminary conceptual framework were homogenous or could be grouped differently.

**Table 10: Initial blocks and distribution of variables**

| | |
|---|---|
| **Establishment-related factors** | Sector, company size, foreign ownership, headquarters, dummy for economic condition being excellent, restructuring |
| **Workforce composition** | Women as proportion of the workforce as compared with sectoral median, temporary agency workers in relation to size class, proportion of workforce who are fixed-term employees and part-time workers |
| **Industrial relation structures** | Collective bargaining coverage at sectoral level, collective bargaining system, incidence and level of wage agreement, type of employee representation (dual or single channel), derogation from collective agreement possible |
| **Social dialogue climate and practices** | Trade union density at establishment level, employee representative's attitude towards PRP, involvement of employee representative in recent major changes of remuneration system, dummy for climate of industrial relations being excellent – employee representative perspective, influence of employee representative in general (on various topics, self-reported by employee representative), provision of economic and financial information 'excellent' (frequent, non-confidential, timely and sufficiently detailed), industrial action at the establishment level with regard to pay in the last 12 months, management perception of employee representative with regard to help in improving performance |
| **Human resources and flexibility practices** | Incidence and form of compensation of overtime, working time flexibility, ability to foresee variations of workload, time off granted for training, incidence and form of teamwork |

*Note:* Variables are taken from the ECS 2009. A detailed description of the variables and questions asked in the survey can be found in Annex 1, Tables A1 and A2.

Using all the above variables, we conducted a factor analysis (principal component analysis). For this purpose, dummy variables were created which were then subsequently used in the analysis. Dummy variables take a value of 1 if a phenomenon is present and 0 otherwise. Note that the block of establishment-related factors (for example, size, sector, economic condition) was not used, as its variables serve as a control later on in the analysis. The factor analysis was to investigate whether and to what extent the variables can be grouped into separate components. A 'component' gathers

those variables that are are correlated (in other words, 'closer' to each other than to other variables) and hence describe a similar phenomenon. The results of this analysis are given in Table 11 and in more detail in A3 in Annex 2. Overall, the analysis resulted in nine distinct 'components' or bundles of variables. The first component, 'collective wage bargaining', shows that establishments with a high score for this component are likely to have an agreement and also operate in sectors with high collective bargaining coverage. The second component embraces establishments with the employee representatives reporting an excellent climate of industrial relations, an excellent financial and economic situation and where they have a high level of influence: in all, a good climate of social dialogue.

Altogether, the nine components show a clear subdivision between the broad blocks of factors that were listed earlier in Table 10. The block of factors related to 'Human resources and flexibility practices', for instance, could be divided into three types of flexibility measures:

- external or numerical measures;
- functional or internal flexibility;
- internal work organisation.

From the block of factors on social dialogue climate and practices, the components 'pay conflicts' and 'social dialogue climate reported by employee representative' would emerge. Note that no workforce component, as such, could be derived from the analysis. Workforce-related variables tend to group within the flexibility and human resources (HR) practice components. For instance, part-time work, temporary agency workers and fixed-term employees group with restructuring, while the proportion of highly qualified workers in the workforce groups with time off being granted for training and working time flexibility with an accumulation of hours. Only the proportion of women in the workforce being higher than the sectoral median forms a single component together with 'overtime not being compensated'.

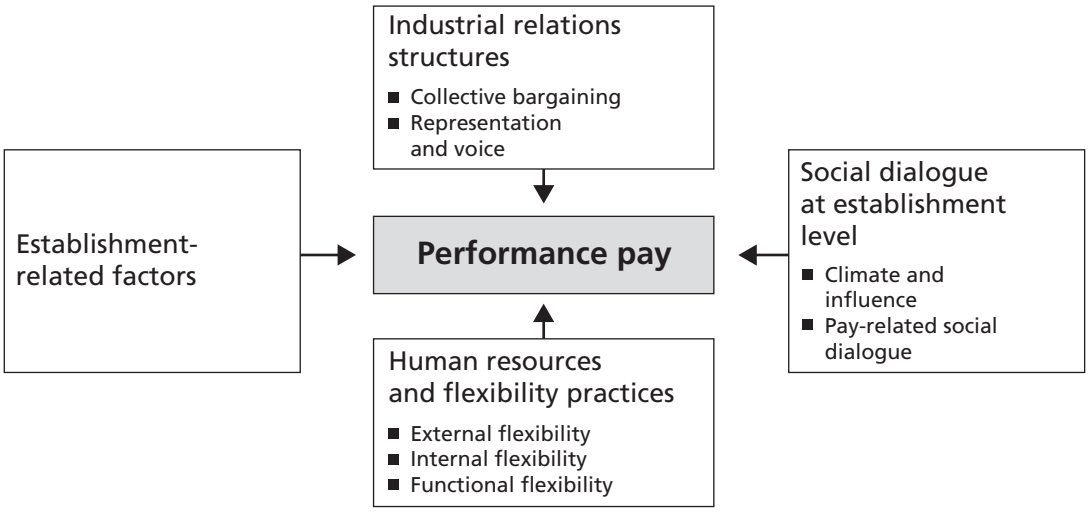
**Table 11: Bundles of variables: Results of the principal component analysis**

| Component | Name | Variables |
|---|---|---|
| 1 | **Collective wage bargaining** | Sectoral collective bargaining coverage high (+); no agreement at establishment level (-) |
| 2 | **Good social dialogue climate reported by employee representative** | 'Excellent' industrial relations climate according to employee representative (+), information on economic and financial situation is excellent (+), perceived self-reported influence of employee representative low (-) |
| 3 | **Higher-level bargaining and derogation mechanisms** | Single-employer agreement (-), derogation possible (+) |
| 4 | **Industrial relations structures at establishment level** | High trade union density (+), single-channel representation (+) |
| 5 | **External – numerical flexibility** | Restructuring, high proportions of temporary agency workers, employees on fixed-term contracts and part-time workers |
| 6 | **Functional and internal flexibility** | Time off for training, proportion of highly qualified workers in the workforce above sectoral median, working time flexibility with accumulation of hours |
| 7 | **Female workforce** | Proportion of women in the workforce above sectoral median, overtime not compensated |
| 8 | **Pay conflicts** | Employee representative opposes PRP, industrial action in the establishment with regard to pay in the last 12 months |
| 9 | **Internal work organisation** | Non-foreseeable workload, teamwork and autonomy |

*Note:* Method is principal component analysis with Varimax rotation; total variance explained: 47.6%; Kaiser-Meyer-Olkin Criterion: 0.526; Bartlett's test of sphericity: significant.

What do these results show? The Kaiser-Meyer-Olkin measure of sampling adequacy provides an index (between 0 and 1) of the proportion of variance among the variables that might be indicative of underlying or latent common factors. Using this, the Kaiser-Meyer-Olkin Criterion of 0.526 indicates a rather 'miserable' sampling adequacy: it is still acceptable, but shows that the variables within the sample, used only to a low extent, have common latent factors. Additionally, the nine components derived explain less than 50% of the variance and both the correlations between the variables (compare Table A4 in Annex 2) and the factor loadings (compare Table A3) are rather low. This initial analysis suggests that individual variables can be safely used in the further analysis without worrying about multicollinearity. The individual variables are independent enough from each other to be used individually in the analysis to come, while using the components instead of individual variables would result in a significant loss of explanatory power. Nevertheless, the results of the analysis are acceptable, so they will be used for modifying the conceptual framework slightly by regrouping and subdividing the initial blocks of variables. The grouping of variables under the different subheadings is hence informed both by the results of the factor analysis – as well as by pragmatic and content-related considerations. The revised conceptual framework, now depicted in Figure 5 and Table 12, shows the slightly regrouped variables, which will be used to explain the incidence of PRP at establishment level.

**Figure 5: The final conceptual framework: slightly revised**



## Table 12: Blocks of factors and variables derived from the ECS

| Blocks of factors | Variables |
|---|---|
| Establishment-related factors (control variables) | Sector |
| | Company size |
| | Foreign ownership |
| | Headquarters |
| | Dummy for economic condition being 'excellent' (a dummy variable takes on the value 1 if a certain attribute is present and is 0 otherwise) |
| | Proportion of women in workforce as compared with sectoral median |
| **Human resources and flexibility practices** | |
| External or numerical flexibility | Temporary agency workers in relation to size class |
| | High proportion of fixed-term employees |
| | High proportion of part-time employees |
| | Past restructuring |
| Internal flexibility practices | Incidence and compensation of overtime |
| | Working time flexibility |
| | Ability to foresee variations of workload |
| | Incidence and form of teamwork |
| Functional flexibility | Time off granted for training |
| | Proportion of highly qualified workers in workforce in relation to sectoral median |
| **Industrial relations structures** | |
| Collective bargaining | Collective bargaining coverage at sectoral level |
| | Collective bargaining system: Incidence and level of wage agreement |
| | Derogation from collective agreement possible |
| Representation and voice | Type of employee representation (dual or single channel) |
| | Trade union density at establishment level |
| **Social dialogue at establishment level** | |
| General climate and influence | Dummy for climate of industrial relations being excellent (employee representative perspective) |
| | Management's perception of employee representative with regard to help in improving performance |
| | Influence of the employee representative in general (on various topics) – self-reported by employee representative |
| | Provision of economic and financial information 'excellent' (frequently, non-confidential, timely and sufficiently detailed) |
| Pay-related social dialogue | Industrial action at the establishment level with regard to pay in the last 12 months |
| | Involvement of employee representative in recent major changes of remuneration system |
| | Employee representative's attitude towards PRP |

# Empirical results for the determinants of performance-related pay

3

## PRP in establishments where social dialogue exists

In this section, the results of a logit model for the incidence of the two types of PRP scheme (see Table 13) are discussed. The dependent variable (which will be explained) is whether or not an establishment has a PRP scheme.

Following Pendleton et al (2003) no 'country dummies' are included, as most of the industrial relation structures will not be independent from the country where an establishment is located. The selected models are valid in terms of the Hosmer Lemeshow test, but only a small proportion of the variation in the data can be explained. The 'fit' is better in the case of the group-based PRP.

Table 13 summarises the 'odds ratios' of the respective variables. The odds ratio, as a result of the logistic regression, here measures the degree of influence of an explanatory variable on the incidence of whether an establishment has a PRP scheme. The table can be read according to the following guidelines.

- Only those variables with a significant odds ratio have a statistically significant influence on whether an establishment runs a PRP scheme.
- Ratios below 1 show a negative association, ratios above 1 a positive.

In the case of variables with more than two answer categories, one category serves as a reference for comparison. For instance, in the case of working time flexibility, establishments may either grant no flexibility at all and they may grant flexibility with or without accumulation of hours. In this case, the reference category chosen is the case of 'no working time flexibility', indicated by an odds ratio of 1. In comparison with establishments without this flexibility, the estimates show that both types of flexibility (with and without accumulation of hours) are more likely to have adopted a PRP scheme. However, the odds are even higher (1.55 in comparison with no working time flexibility) for establishments that allow accumulation, as compared with those that do not allow accumulation of hours (1.24 in comparison with no working time flexibility).

Can information on industrial relations structures explain country-specific differences in the incidence of PRP? It appears that the answer is no, as indicated by the comparison with models that include country dummies instead of, or in addition to, the country-specific industrial relations variables.

Country-specific industrial relations variables comprise:

- the form of collective bargaining;
- channel of employee representation;
- collective bargaining coverage at sectoral level;
- the ability to derogate from higher-level collective agreements.

However, the estimated coefficients remain – apart from some notable exceptions, which will be discussed in further detail below.

**Table 13: Model summary**

| Model no. | Dependent | Explanatory variables | Country dummies | Sample | Nagelkerke R2 | Hosmer Lemeshow | Reported in |
|---|---|---|---|---|---|---|---|
| **M1** | IPRP | As in Table 10 | No | Interviews with employee representatives exist | .134 | .918 | Table 14 |
| **M2** | GPRP | As in Table 10 | No | Interviews with employee representatives exist | .167 | .628 | Table 14 |
| **M3** | IPRP | As in Table 10 (excludes industrial relations structures) | Yes | Interviews with employee representatives exist | .208 | .250 | Not reported |
| **M4** | GPRP | As in Table 10 (excludes industrial relations structures) | Yes | Interviews with employee representatives exist | .219 | .232 | Not reported |
| **M5** | IPRP | As in Table 10 | Yes | Interviews with employee representatives exist | .209 | .204 | Table A5, Annex 2 |
| **M6** | GPRP | As in Table 10 | Yes | Interviews with employee representatives exist | .221 | .490 | Table A5, Annex 2 |
| **M7** | IPRP | As in Table 10: excludes social dialogue practices | No | All establishments | .123 | .073 | Table A6, Annex 2 |
| **M8** | GPRP | As in Table 10: excludes social dialogue practices | No | All establishments | .148 | .348 | Table A6, Annex 2 |
| **M9** | Broad-based IPRP | As in Table 10 | No | Interviews with employee representatives exist | .083 | .900 | Table A7, Annex 2 |
| **M10** | Broad-based GPRP | As in Table 10 | No | Interviews with employee representatives exist | .118 | .101 | Table A7, Annex 2 |
| **M11–15** | Any PRP | As in Table 10 | No | All establishments within five regimes of industrial relations | See Table 18 | See Table 18 | Table 18 |
| **M16** | Any PRP | As in Table 10, plus the interaction effects of employee representative attitude and industrial relations regimes | No, but dummies for industrial relations regimes | Interviews with employee representatives exist | .164 | .300 | Table 19 |

*Note:* 'IPRP' = individual performance-related pay; 'GPRP' = group-based performance-related pay.

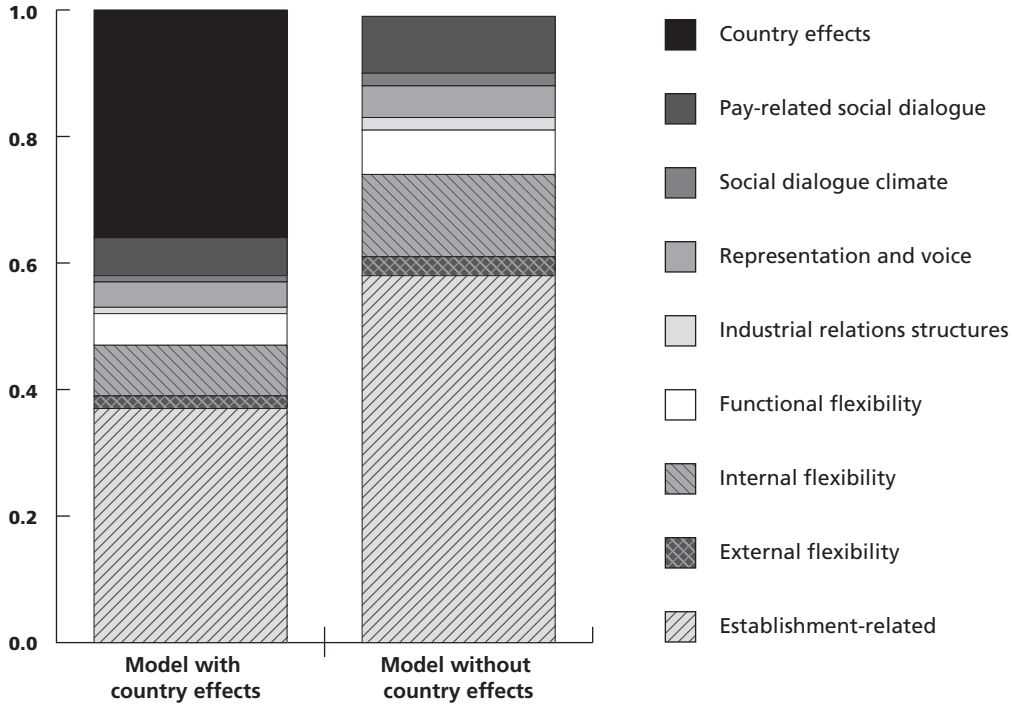
Indeed, the inclusion of country-specific factors into the models improves the model fit substantially. Also, the models estimated within different types of industrial relations' regimes (M11–M15) have higher explanatory power in general, while those for the case of broad-based schemes (M9–M10) are much less convincing. Figure 6 gives an overview of the 'relative importance' of the various blocks of factors in terms of adding to the statistical explanatory power of a model on the incidence of PRP.

From what can be explained through our models, the best prediction of whether an establishment has a PRP scheme comes as a result of knowing the country in which it is located as well as basic establishment-related factors (such as sector and company size). However, there is also some value in knowing the remaining factors this study has hypothesised as having an impact: These are:

- human resource and flexibility practices, with the added value of knowing internal and functional flexibility practices;
- pay-related social dialogue;
- variables of representation and voice.

However, knowledge about industrial relation structures as well as the general social dialogue in the establishment adds only a very little additional information to the model.

**Figure 6: Contribution of blocks of variables to explain the incidence of individual PRP**




*Note:* The figure depicts the share of Nagelkerke's R2 from each step from a nested model, in which the mentioned blocks of variables have been entered blockwise. Nagelkerke's R2 generally indicates the improvement of a specific model over an initial model, where no variables were used for explanation.

**Table 14: PRP in establishments where social dialogue exists**

| | Dependent variables | M1: Individual PRP | | M2: Group-based PRP | |
|---|---|---|---|---|---|
| | | Odds ratio | Sig. | Odds ratio | Sig. |
| | Constant | .263 | *** | .211 | *** |
| **External or numerical flexibility** | Temporary agency workers 'significant' compared with size class | .980 | | 1.052 | |
| | Fixed-term employees form more than 20% | .865 | * | 1.088 | |
| | High proportion of part-time workers | .821 | ** | .801 | ** |
| | Restructuring | 1.230 | ** | 1.318 | *** |
| **Internal flexibility** | No overtime worked | 1.000 | ** | 1.000 | ** |
| | Overtime compensated for with money or time off | 1.290 | ** | 1.292 | ** |
| | Overtime not compensated for | .871 | | .983 | |
| | No information on overtime | .771 | | .538 | * |
| | No working time flexibility | 1.000 | *** | 1.000 | *** |
| | Working time flexibility with accumulation of hours | 1.555 | *** | 1.427 | *** |
| | Working time flexibility without accumulation of hours | 1.240 | ** | 1.057 | |
| | Workload variation not foreseeable | .978 | | 1.000 | |
| | No teamwork | 1.000 | | 1.000 | *** |
| | Teamwork with supervision (ref.) | 1.064 | | .743 | ** |
| | Teamwork with autonomy | 1.024 | | 1.179 | ** |

| | Dependent variables | M1: Individual PRP | | M2: Group-based PRP | |
|---|---|---|---|---|---|
| **Functional flexibility** | Time off granted for training | 1.482 | *** | 1.260 | ** |
| | Highly qualified workforce in sectoral median category (ref.) | 1.000 | | 1.000 | |
| | Highly qualified workforce below sectoral median category | .910 | | .943 | |
| | Highly qualified workforce above sectoral median category | 1.045 | | 1.006 | |
| **Collective bargaining** | Low collective bargaining coverage at sectoral level (ref.) | 1.000 | | 1.000 | |
| | High collective bargaining coverage at sectoral level | 1.200 | * | 1.145 | |
| | Medium collective bargaining coverage at sectoral level | 1.093 | | 1.059 | |
| | No agreement (ref.) | 1.000 | ** | 1.000 | ** |
| | Single-employer bargaining | 1.338 | ** | 1.306 | ** |
| | Multi-employer bargaining | 1.244 | ** | 1.227 | * |
| | Derogation possible | .895 | | .859 | |
| **Representation and voice** | Dual-channel representation | .973 | | .857 | ** |
| | High trade union density (ref.) | 1.000 | *** | 1.000 | ** |
| | Low trade union density | 1.419 | *** | 1.245 | ** |
| | Medium trade union density | 1.431 | *** | 1.160 | * |
| **General social dialogue climate and influence of employee representative** | 'Excellent' climate of industrial relations according to employee representative | .866 | ** | .933 | |
| | Management strongly agrees that employee representative helps improve performance | 1.005 | | 1.075 | |
| | Employee representative influence perceived as 'low' by employee representative (ref.) | 1.000 | | 1.000 | * |
| | Employee representative influence perceived as 'high' by employee representative | .933 | | .762 | ** |
| | Employee representative influence perceived as 'medium' by employee representative | .909 | | .943 | |
| | Information provision on financial situation is 'excellent' | 1.215 | ** | 1.172 | ** |
| **Pay-related social dialogue** | Industrial action with regard to pay at establishment level | 1.057 | | 1.018 | |
| | No changes of remuneration system/no information on involvement | 1.000 | *** | 1.000 | *** |
| | Employee representative had been involved in recent major changes of remuneration system | 1.389 | *** | 1.481 | *** |
| | Employee representative had not been involved in recent major changes of remuneration system | 1.252 | * | 1.179 | |
| | Employee representative is neutral with regard to PRP | 1.000 | *** | 1.000 | *** |
| | Employee representative supports PRP | 1.219 | ** | 1.184 | ** |
| | Employee representative opposes PRP | .798 | ** | .860 | * |

| | Dependent variables | M1: Individual PRP | | M2: Group-based PRP | |
|---|---|---|---|---|---|
| **Establishment-related factors (control)** | Production activities (ref.) | 1.000 | *** | 1.000 | *** |
| | Construction | .974 | | 1.153 | |
| | Commerce | 1.408 | ** | 1.450 | *** |
| | Hotels and restaurants | 1.330 | | 1.445 | * |
| | Transport, storage, communication | .865 | | .665 | * |
| | Financial intermediation | 2.711 | *** | 1.431 | * |
| | Real estate, renting and business activities | 1.133 | | 1.015 | |
| | Public administration | .833 | * | .536 | *** |
| | Education | .945 | | .361 | *** |
| | Social work | .553 | *** | .364 | *** |
| | Other community services | .703 | ** | .504 | *** |
| | 250 plus (ref.) | 1.000 | *** | 1.000 | *** |
| | 10 to 19 | .795 | ** | .586 | *** |
| | 20 to 49 | .734 | *** | .559 | *** |
| | 50 to 249 | .770 | *** | .743 | *** |
| | Foreign ownership | 1.665 | *** | 1.638 | *** |
| | Headquarters | .997 | | 1.142 | * |
| | Economic situation | 1.184 | * | 1.196 | ** |
| | Proportion of women in workforce in sectoral median category (ref.) | 1.000 | ** | 1.000 | * |
| | Proportion of women in workforce below sectoral median category | .791 | ** | .931 | |
| | Proportion of women in workforce above sectoral median category | .993 | | 1.121 | |
| | Nagelkerke R2 | .134 | | .167 | |
| | Hosmer and Lemeshow Test | .918 | | .628 | |

*Significance levels:* *** 0; ** 5%, * 10%; 'ref.' = reference category. For this category, the 'odds ratio' is always 'one'.

Significant and positive influence

Significant and negative influence

No significant influence detected

## Establishment-related factors

### *Size, ownership and type*

It seems straightforward to argue a positive link between company/establishment size and the incidence of PRP, recalling that one reason for management introducing such schemes is to reduce monitoring costs. Firstly, monitoring costs are likely to increase with company size. Secondly, fixed costs are associated with the setting up, implementation and running of any form of PRP schemes, and these will be easier to bear for larger companies. Regarding financial participation schemes, Pendleton et al (2003) also stress the limited applicability of certain forms of financial participation (such as share-owning) in the circumstances faced by SMEs. Similar arguments could be applied in the case of foreign versus domestically owned companies. Foreign-owned companies can be expected to face higher costs of 'monitoring', as they might also have to make more effort to align employees with differences in organisational and corporate cultures. Also, the 'distance' (both spatially and socially) between the headquarters (or other central organisational points where management decisions are made) of foreign companies and the establishment observed might be

greater than for domestic companies. Hence, foreign-owned companies could see a greater need to align employees with more formal schemes, such as PRP. Assuming that human resource policies trickle down from headquarters, one can also expect that headquarters are more likely to have already implemented some form of PRP scheme. In particular, multinational companies have greater opportunities for internal learning and also horizontal best practice transfer, and they might be less attached to domestic conventions. In addition, headquarters are also likely to be staffed with larger proportions of highly qualified employees, which might result in certain forms of PRP schemes (for example, those based on more 'subjective' criteria) being more likely.

These theoretical considerations are confirmed by the results of the statistical analysis: establishment size is, not surprisingly, positively linked to the existence of PRP. Small establishments of all size classes below 249 employees are significantly less likely to have PRP than establishments with 250 or more employees. The size impact is more pronounced among the smallest two categories of enterprises for the case of group-based PRP. This could be due to the higher costs of setting up and running group-based PRP schemes as compared with individual-based PRP schemes. Individual PRP schemes, for instance, in the form of piece rates or payment upon results, are supposedly easier to implement in smaller companies, while group-based schemes – even if they are based on objective criteria – might be more complicated for smaller companies to implement.

The estimates also show that foreign ownership, as compared with domestic ownership, has a strong impact on the odds of having a PRP scheme. Establishments in foreign ownership have a more than 60% higher odds ratio of having PRP than establishments that are predominantly in domestic ownership. Being a headquarters, however, is only (weakly significant) positively related to the existence of group-based PRP, but not for the incidence of individual PRP. This could signal that individual PRP (for instance, in the form of piece rates) is also quite prevalent in establishments that are not headquarters – for instance, on assembly lines. However, group-based PRP might be used in a more sophisticated way (using management appraisal schemes) within headquarters rather than elsewhere. However, this cannot be directly observed in the dataset.

***Sector***

The recent industrial relations literature on PRP schemes has acknowledged sectoral differences concerning the incidence and nature of PRP, and often used comparisons within and between sectors in their research design. Yet, to the authors' best knowledge, there is no recent international study covering a number of sectors simultaneously in a quantitative research, so figures on the sectoral incidence of PRP schemes are, by and large, anecdotal. Arrowsmith et al (2008) report that in banking, a tendency towards individual merit-based pay and multiple bonus arrangements can be observed, and that across the countries observed within the study (Austria, Spain, Norway, UK), shared managerial objectives of performance management and cost control could be detected. Arrowsmith and Marginson (2010) report a decline of incentive-based pay in UK manufacturing, which they attribute to the increase of high-involvement workplaces, which are less suited to individual PRP schemes and output-based measures, but may favour collective schemes. They state that the development of more sophisticated pay schemes also went hand in hand with more management discretion. Park, Appelbaum and Kruse (2010) hypothesise that group-based PRP schemes (as opposed to high-involvement practices) are more important for labour-intensive industries than capital-intensive ones, and find supportive evidence for this in three detailed subsectors of the manufacturing sector.

The study's results, depicted in Table 14, with the production sector as reference category, show that financial intermediation is the sector with the highest likelihood of individual PRP by far: these establishments are 2.7 times more likely to have adopted one. Also, group-based PRP is more likely to be found in this sector, but the likelihood is much lower and, at 1.4 times more likely, lies in the same range as the commerce sector. However, establishments operating in public administration, social or other community services are less likely to run a PRP scheme, while establishments in construction and in hotels and restaurants, transport and storage and in real estate are not significantly different from production when it comes to PRP. In the education sector, group-based PRP is less likely, while we found no significant difference from production activities for the case of individual PRP.

Controlling for these size and sector effects, the impact of all other variables can then be interpreted as being independent of size or sector (for example, in the following section this study compares establishments of the same size within the same sector).

***Financial situation***

More attention in the literature has been given to the link between the financial condition of a company and the existence of a PRP scheme. The correlation has been explored in both directions, but more often in the context of whether the PRP schemes are introduced in order to induce higher performance. Arrowsmith and Marginson (2010) state that – opposed to the claims of the 'new pay' literature – the implementation of PRP schemes is not a performance strategy in its own right, but rather is meant to support wider changes in the work organisation. In this sense, Jungblut (2011), using ECS data, has established that group-based pay schemes, besides a multitude of other innovative HR practices, are significantly positively linked to economic performance and labour productivity. Also, Kim and Gong (2009) have shown that group-based PRP leads to higher performance, mediated by the organisational collective behaviour of core employees.

From a different point of view, Dohmen and Falk (2006) apply an individual, rather than collective, perspective, and show, in an experimental research design, that the link between economic performance and PRP is an issue of self-selection: higher-productivity workers are more likely to choose PRP schemes over fixed pay. This link has also been stressed by Kuhn and Yockey (2003) who state that the main justification for using a PRP plan is to attract and retain high performers.

In this work, we are not atttempting to determine whether PRP induces better performance or whether good financial performance leads to a higher incidence of companies setting up PRP schemes. In any case, this would not be possible as this study relies on a snapshot of point-in-time observations, but the literature gives rise to the need to control for the financial condition of an establishment.

We hypothesised that, given that devising, implementing and monitoring any PRP schemes is costly, companies who have been doing well in the past are also more likely to have adopted such a scheme. This hypothesis is confirmed within our dataset. Establishments with an excellent financial situation are more likely to have adopted a PRP than all the others (odds ratio: +18%–19%). This mirrors forthcoming findings from Eurofound research that management in companies that have adopted a group-based PRP scheme judge labour productivity to be higher (Jungblut and Storrie, 2011). Note that, in this case, we have adopted a broader definition of the 'financial situation', which is only deemed to be good if three out of four criteria (the assessed financial situation, assessed labour productivity compared with others, growth in assessed labour productivity and growth in employment) have been reported to be good. In that sense one can see that even under a narrower definition of the financial situation, the link prevails.

### *Gender composition*

Links between the gender composition of a workforce and PRP have been addressed to various degrees in the literature. Arrowsmith and Marginson (2010) report that: 'International studies consistently demonstrate that payment by results is generally most likely found in establishments with a high proportion of women workers.' However, the literature on determinants of the gender pay gap often claims that women earn less because they get less well-paid forms of PRP, such as bonuses (Ponzellini et al, 2010). Very often, this is explained by a stereotypical view that women are more risk averse when making financial decisions than men. Two interesting studies, both using an experimental research design at the individual level, come to different findings on this issue. Dohmen and Falk (2006) have shown that even when controlling for factors such as individual productivity, risk aversion, relative self-assessment and over-confidence, a significant influence of the gender variable on the decision whether to opt for a PRP as opposed to a fixed salary can be found. Dohmen and Falk found that women are still more likely to choose fixed pay over a variable option. However, Kuhn and Yockey (2003) find, within their experimental research design, no difference with regard to gender when it comes to opting for PRP. It might also be necessary to consider the level of pay involved, which might have an effect on the preference for variable forms of pay: workers with comparatively low levels of pay will be more inclined to choose the safer option of fixed pay rather than the riskier variable one – especially when the PRP is high compared with basic pay and could fall in the event of poor performance. To the extent that one can expect vertical segregation to be present within companies, for example women working more often in lower-paid jobs, one could expect a negative association between the incidence of a predominantly female workforce and PRP. One must, of course, take into account in this research the issue of horizontal gender segregation, predominantly across (differently paid) sectors with different forms and incidence of PRP. As the data means one can already control for sectoral differences, this study will measure the degree of gender balance within an establishment compared with other establishments within the same sector – not across the board.

The main hypothesis to be tested in this study is that there is a link between the gender composition of the workforce within the establishment and the incidence of PRP. As we cannot yet deduce any clear direction of influence from the literature concerning the gender dimension, we leave the direction of influence as explorative investigation for the time being.

In this research, the study considers the gender composition within an establishment as compared with the typical (median) composition within the same sector. The construction of this variable allows us to consider the fact that men and women employees are not spread evenly across all sectors, but are segregated horizontally.

The results show that in the case of individual PRP, there is a significantly negative impact on the odds of having PRP for those establishments that are male-dominated as compared with more gender-balanced establishments. However, female-dominated establishments are not significantly different from the more gender-balanced establishments with regard to individual PRP. For group-based PRP, however, we do not find any significant impact of the gender balance within a company.

This pattern – apart from the finding that male-dominated establishments seem to be less likely to have individual PRP – broadly suggests that there is no gender impact on the adoption of PRP. PRP in general is not something particularly associated with a non gender-balanced workforce.

Our findings would therefore support Kuhn and Yockey's (2003) hypothesis that men and women do not differ when opting for PRP. However, one has to bear in mind that this finding is valid only for the

sample of establishments where employee representatives exist, and depends on gender segregation having already been controlled for across sectors. Establishments with a higher proportion of women in general are much more prevalent in public administration, education and social work, which – as found above – are less likely to have adopted PRP schemes. Conversely, men often dominate in sectors that have been found to have a much higher incidence of PRP. In financial and insurance activities (that have the highest incidence of PRP), only around 30% of the establishments surveyed have a proportion of women in the workforce that exceeds the median category of between 40% and 60%, while around 40% of establishments fall into categories below median. The link is not so clear for real estate activities and the commerce sector. What one has to bear in mind, though, is that with this dataset, one can observe neither the level of PRP as compared with basic pay (for example, is it substantial?) nor to whom the PRP is given when only parts of the workforce are addressed. Across the board, the horizontal segregation of men and women and the unequal sectoral distribution of PRP could still account for some of the explained part of the gender pay gap. A more thorough investigation of this issue, for instance by comparing the links between gender and PRP within sectors, could be an interesting issue for further research and feed into policies on the gender pay gap.

### Human resources and flexibility practices

An important question, as one referee has pointed out, is whether the use of contractual flexibility, or other forms of it, reduces the need for implementing PRP. Productivity could be realised through other means, such as sophisticated management systems or different company cultures. This section considers three 'bundles' of flexibility measures:

- external or numerical flexibility;
- internal flexibility;
- functional flexibility or work organisation.

#### *External or contractual flexibility*

PRP as an internal flexibility measure (particularly when thinking of piece rates or payment upon results) could well be thought of as a substitute for 'external' flexibility measures, whereby companies gain the required flexibility to accommodate labour supply to production demand. This type of PRP would most likely be linked to cost control motives. Companies have a number of external, contractual or numerical flexibility measures at their disposal – for instance, the use of temporary agency workers, fixed-term employees or part-time workers.

Temporary agency workers are not employed by the company they work for. They have an employment contract with an agency and companies generally use these workers for particular periods of time to overcome shortages in capacity or as part of a flexibility strategy. Their pay is dependent on national regulation and/or collective agreements, although it is likely to be linked to basic salaries in the establishment, paid through the agency. Hence one can assume that companies will, in general (although there may be exceptions), not include these workers in PRP schemes. Companies with higher proportions of these workers – and accordingly a lower proportion of core employees – are believed to be less likely, in general, to have adopted any form of PRP. This is because a high proportion of temporary agency workers makes implementating PRP schemes more costly per core employee than for firms of similar sizes with no such workers. The presence of agency workers thereby partly acts as an 'additional' size effect.

Similar arguments could be made in the case of fixed-term employees who are with the company for a specific period of time. A high proportion of these contracts in a company might possibly reduce the likelihood of variable-pay schemes, which are intended to foster long-term engagement with employees. One can look at, for instance, the findings of the PEPPER reports (Lowitzsch et al, 2009), which stress setting up long-term engagement perspective with employees – as opposed to hiring and firing – as a common motive among enterprises when setting up any schemes of financial participation. Also, in the case of PRP, those schemes that are motivated by, and designed for, a longer-term engagement (for example, those intended to motivate and retain employees and possibly those depending on subjective appraisal) should be negatively linked to the incidence of larger proportions of fixed-term employees. Finally, part-time work is another instrument that would allow companies to react more flexibly to fluctuations in workforce utilisation (Nelen et al, 2011). Hence, using part-time workers in flexible ways could reduce the need for companies to use PRP schemes.

The results within this sample of establishments (where employee representatives exist) show that we finds no evidence of a connection between the existence of any form of PRP and the presence of temporary agency workers. We did find that establishments with higher proportions of fixed-term employees and of part-time workers have a lower likelihood of having adopted individual PRP schemes. For group-based PRP schemes, only the incidence of higher proportions of part-time workers is significant and negative. These findings suggest, albeit weakly, that there is some kind of decision made by companies as to whether to link pay to employee performance (in the case of piece rates) or whether to employ workers on a more flexible basis.

It is therefore not clear whether there is a link between the incidence of restructuring and the incidence and nature of PRP. One could argue that restructuring events, causing some form of organisational stress to the company, might result in the need to introduce HR practices that align and incentivise employees. However, Arrowsmith and Marginson (2010) have argued that for the manufacturing sector, which witnessed declining individual incentive-based pay in the UK, '…unions have also become more defensive due to the threat of corporate restructuring and capital mobility, which arguably makes it easier for management to intensify work effort without having to link it to pay'. From this, one might infer that, by and large, those companies that have witnessed such stress in the past could have ceased to operate a PRP scheme. However, Arrowsmith and Marginson also argue that (within the context of increased competition) in making the design of PRP schemes more complex, companies have aggregated PRP schemes in support of broader objectives.

A tentative hypothesis in this regard would be that companies, having faced phases of restructuring, might be more likely to operate group-based or any form of financial participation schemes, rather than systems linked to individual performance. The estimates show that this hypothesis seems to be supported: there is a significantly positive connection between the incidence of any form of restructuring and PRP. Companies that have undergone previous restructuring have 23% higher odds of having adopted an individual PRP scheme and 32% higher odds of having a group-based PRP scheme than their counterparts who have not been recently restructured. This would support our line of argument that companies that have experienced this sort of organisational stress may see a stronger need to introduce human resource practices that align and incentivise employees, such as PRP in general and group-based schemes in particular.

Is there a contradiction between the finding that companies having an excellent economic condition and those having undergone restructuring are both more likely to have adopted PRP schemes? Not necessarily, one can argue, and for a number of reasons. First, the scheme might be different in the

case of companies performing well (where it might be a bonus system), and those performing badly and restructuring as a consequence (using merit-based pay – more pay flexibility instead of basic pay). In both cases, different forms of PRP might be applied, the form of which we do not, however, observe directly in the data.

Second, the variables in our model have to be interpreted in a simultaneous way: this study compares establishments in the same (broad) financial situation, whether they are restructuring or not. The comparison is also made the other way round, comparing establishments that are restructuring, where one might be performing better than the other.

Third, the incidence of restructuring here is not necessarily linked with a poor financial situation. Restructuring might have taken place during the three years preceding the study. Successfully restructured companies might find themselves in an 'excellent' situation again.

Fourth, the way financial performance is measured here is one-sided: the dummy variables are included only for those establishments that are doing well (compared with the rest). From this, one cannot deduce whether establishments that are doing particularly badly are also more likely to have PRP.

**Table 15: 'Restructuring' and establishments' financial situation (%)**

| | | Economic situation | | |
|---|---|---|---|---|
| | | 3 out of 4 financial performance criteria apply | 3 out of 4 financial performance criteria apply | Total |
| 'Restructuring' (acquisition, merger, takeover, relocation or demerger) | None or no info | 79.5% | 20.5% | 100.0% |
| | Yes, any of them | 68.2% | 31.8% | 100.0% |
| | | 77.8% | 22.2% | 100.0% |

*Note:* Financial criteria: financial situation is quite or very good; labour productivity is a lot or somewhat better compared with other establishments in the same sector of activity; the increase in labour productivity has been considerable or slight during the preceding three years; employment has increased during the preceding three years (all reported by management).

*Source:* ECS, full sample of establishments, 2009.

### *Internal flexibility practices*

This study has already touched upon the issue of external flexibility when discussing companies' decisions to engage higher shares of temporary agency workers or fixed-term employees. Based on ECS data, we additionally take into account two proxies for internal flexibility:

- whether companies run overtime and compensate their employees for it;
- whether and to what extent employees are granted working time flexibility.

Either of these practices would allow companies to distribute a changing workload among their employees without having to refer to external help or base their earnings on productivity-based measures. In this sense, we could expect a negative association between, on the one hand, the practice of overtime and the existence of working time flexibility schemes and, on the other hand, the use of PRP schemes. In other words, PRP could be used to substitute for paid (and costly) overtime. However, the HR literature has shown that companies make increasing use of 'bundles' of internal HR measures. In this sense, we could also expect a simultaneous occurrence of overtime, working time flexibility and PRP. We suggest that this is a matter of management motivation: PRP might be directly used to increase work effort by linking pay to results (payment upon results, merit-based pay

or piecework). However, PRP might be more associated with forms of PRP introduced to motivate and reward employees on a longer-term basis (such as bonuses paid on top of an annual basic salary, subject to management appraisal).

There also seems to be a link between the choice of performance-based monetary measures versus time-based flexibility measures and employee representation. Lemieux, Mcleod and Parent (2009) have investigated the relationship between PRP, working hours and the degree of unionisation in the US labour market. They established that while wages are most flexible under non-union performance-pay contracts and least flexible under non-performance-pay union contracts, the opposite is true for the case of work hours.

The type of flexibility practices that companies apply could also be expected to be contingent on whether variations in the workload are foreseeable. By including two types of flexibility practices (working time flexibility and compensation of overtime), no significant effect of the foreseeability variable can any longer be found. This means that through controlling for the two practices, the problem of non-foreseeability of workload variation has no further impact on the existence of a PRP scheme.

Working time flexibility is positively associated with PRP. This is true for different types of flexibility. For instance, when hours can be accumulated, and also when hours cannot be accumulated but end and start times can be varied, establishments are more likely to have a PRP scheme. This finding shows that working time flexibility and pay flexibility are not direct substitutes for each other, but rather are complementary practices or 'bundles' of practices for management. The estimates also show that where workers are not allowed to accumulate hours, a lower impact on the incidence of individual PRP can be found (odds ratio: +24 vs. +56%). For group-based PRP, only working time flexibility with accumulation of hours is positively linked.

In the case of non-accumulation of hours, companies are presumably more likely to compensate for overtime, so the inclusion of the overtime variable captures parts of these effects.

This study further finds a positive association between whether overtime is compensated for in an establishment and the incidence of any form of PRP. Companies in which overtime is practised and compensated for have significantly higher odds (+29%) for having a PRP scheme than companies where no overtime is worked. We find, however, no evidence that companies that do not compensate for overtime use PRP instead. [1]

The findings in the following section indicated that only in two groups of industrial relations regimes (North and West) do we find a significant link between the practice of substituting PRP and the non-compensation of overtime. So one can see that the different incidence of employment representatives across the regimes and different practices of (non-)compensation have shaped this finding.

Earlier research by Eurofound (2001) reported a positive connection between teamwork and broad-based forms of financial participation. This might, however, be subject to what extent autonomy is being granted, particularly in the case of PRP. As PRP might be used to reduce monitoring costs, it is likely that it will be implemented in workplaces where effort is hard to monitor and therefore where employees are granted autonomy. This has been established for PRP by Barth et al (2008a), who,

[1] However, the fact that for a number of companies no information is available, and that these are at the same time significantly less likely to have group-based PRP, shows that there might be some unobserved bias in the data.

using longitudinal data from Norwegian surveys, find a positive relationship between the autonomy of the main occupational group in terms of defining work tasks and the incidence of PRP.

We expect group-based PRP to be positively associated with the existence of teamwork, but only when the team is granted autonomy. However, we also expect supervised teamwork to be a substitute for group-based PRP. Our results show that this expectation can be confirmed: teamwork is associated with group-based PRP, but not with individual-based PRP. Establishments where teamwork is practised and employees are granted autonomy are more likely to base payments on group performance. However, in those establishments where the teamwork is supervised, group-based PRP schemes are considerably less likely to be found than in establishments where no teamwork at all is practised. In this sense, group-based pay could be seen as linked to reducing the costs from supervision.

***Functional flexibility practices***

One key reason for management using PRP is to retain high-performing employees. In the case of financial participation (Pendleton et al, 2003), it is argued that firms with rich human capital will tend to use more financial participation schemes. Here, the authors particularly stress the relationship between training and financial participation, where it can be seen as a return on investment and serve to reduce turnover in the long run. Performance-based schemes, motivating employees to be rewarded for their personal effort, could also be seen along the same lines.

The incidence of PRP schemes has been further discussed in relation to high-performance workplaces which, according to Arrowsmith and Marginson (2010), are less suited to individual PRP schemes and output-based measures, but may favour collective schemes in order to induce teamwork. The experimental research by Dohmen and Falk (2006) show that more productive workers are more likely to choose PRP schemes, and Kuhn and Yockey (2003) show that PRP was preferred when incentives were based on individual rather than collective (team or organisational) performance, and participants were more optimistic about the likelihood of receiving incentives as individuals. As the ECS data allow us to take into account the proportion of highly qualified employees in the establishment, this study will use them as a (vague) proxy for the incidence of both high performers and high-performance workplaces, and at the same time as a proxy for human capital. [2]

A further element of high-performance workplaces is training. It has been argued (Acemoglu and Pischke, 1999 b) that the impact of higher degrees of unionisation on training is expected to be positive, because compressed wage structures may encourage employers to invest in general training so as to run less risk of losing the individual productivity gains of such training in individual wage negotiations. However, empirical results are not as clear cut as the same authors report. We expected a positive association between time off granted for training and the incidence of PRP and profit sharing. Within our sample of observation (where employee representatives exist) there is no significant correlations between the proportion of highly qualified employees and the existence of such variable forms of pay. However, this study does find a positive association between whether companies have granted time off to their employees for training and both forms of variable pay.

[2] 'High-qualified' employees – as we can measure it in the ECS – is, of course, only a very vague proxy for measuring 'high performance', which is existent at all qualification levels. The link would be an indirect one: employees with a higher qualification have to a certain extent 'signalled' a higher productivity through undergoing lengthy and costly formal qualification. Furthermore, we measure the variable in relation to the sectoral median within establishments, so we compare establishments within the same sector and their relative share of high-qualified workers.

### Industrial relations structures

In this study we hypothesised that structures of industrial relations (the levels of collective bargaining, the existence of establishment-level representatives, the room for manoeuvre given to local actors in their discretion over pay) will influence what type of PRP schemes have been put in place (where any have been). In their study of the manufacturing sector, Nergaard et al (2009) sum up four institutional factors that emerge as critical for the willingness and capacity of representatives to engage in the joint governance of PRP schemes:

- the presence of a company arena for collective wage regulation and whether this is located within a multi-employer framework;
- the nature of the division of responsibilities between actors at different layers in multi-level systems;
- established mechanisms and procedures for articulation and coordination between sectoral and company actors;
- the strength and power resources of the company-level actors.

The ECS does not allow us to observe all of these factors, but we try to proxy them through the information about industrial relations structures and practices at our disposal.

#### *Collective bargaining*

Traxler et al (2008) – for the banking sector – produced the hypothesis that the capacity of collective bargaining to *govern* PRP varies with the bargaining system. They show that articulated multi-employer bargaining is better able to govern PRP than its unarticulated counterpart and single-employer bargaining. Arrowsmith and Marginson (2010), in their broader study on wage flexibility and implications for collective bargaining, list the following points under which, within multi-employer bargaining, scope for wage flexibility at company level can still be governed:

- exemption from the application of sector-wide wage norms at company level;
- additional bargaining at company level;
- a framework to be applied to the implementation of PRP schemes within companies; the regulation of PRP schemes by sectoral agreements is thus also specifically considered in this section, as is the incidence of 'downwards' wage flexibility under multi-employer bargaining.

Under single-employer bargaining, however, Nergaard et al (2009) argue that the capacity of representatives to influence PRP schemes, and any trade-off between basic and PRP, will hinge almost entirely on their local strength and bargaining power. Since the stakes are higher, representatives in single-employer bargaining systems are likely to be more wary of PRP schemes and less willing to experiment. They state that:

> *Sectoral unions in well-articulated multi-employer, single-channel systems can go quite far in delegating core industrial relations issues, including working time and wage determination, to local and individual actors – insofar as these processes are framed by higher-order procedures and centrally defined fall-back positions when local actors cannot agree.*

However, a quantitative study based on a Norwegian private sector dataset found a negative relationship between the centralisation of collective bargaining and the incidence of PRP (Barth et al, 2008a).

The models show that one can indeed find correlations between different structures of industrial relations and the incidence of PRP of both types across Europe.

Within the present research, this study considers collective bargaining coverage at sectoral level. At establishment level, the collective bargaining coverage variable most frequently takes on the values of all employees being covered within the establishment, or 'none', as most countries do apply legal extension mechanisms of collective agreements. Only in a few establishments do we find the coverage of a certain fraction of employees only. This is, of course, also not independent of the level where the collective wage agreement has been negotiated. As we have already taken this into account with the variable on 'type of bargaining system', we will not consider collective bargaining coverage at establishment level further.

The variable of collective bargaining coverage at sectoral level could be seen as an indicator of how well the sectoral actors are organised. For example, a high degree of coverage of collective bargaining at sectoral level in a country can mean that sectoral actors are present and that their agreement exerts (possibly also through legal extension mechanisms) a certain impact on the sector. Collective bargaining coverage and mechanisms that extend the provisions of collective agreements beyond the members of the signatory organisations are important factors that strongly affect the procedures and practices through which wages, hours and working conditions are determined. Bargaining coverage and extension affect other areas of industrial relations. Higher levels of collective bargaining coverage are often associated with smaller wage differentials.

However, the estimates show that the degree of collective bargaining coverage at the sectoral level is only weakly statistically associated with individual PRP. Establishments operating in environments with a high level of collective bargaining coverage are more likely to have an individual PRP scheme than other establishments. In this sense, individual PRP can be associated with the presence of collective bargaining.

An establishment's being covered by a collective wage agreement is also associated with the existence of PRP. This study finds positive effects for both single and multi-employer bargaining on both forms of variable pay. The odds that PRP is associated with single-employer agreements are even a bit higher (31%–34%) than the likelihood that it is associated with multi-employer agreements (23%–24%). Hence, this study can state that PRP is, by and large, more likely to exist within a bargaining context than in non-bargaining situations, and the results also point towards single-employer bargaining being more favourable to a PRP scheme implemented in an establishment than multi-employer bargaining situations. In this sense, it could also be inferred that company-level agreements could be more conducive to the laying down of terms and conditions of PRP schemes than higher-level agreements.

In some countries, the derogation from a collective agreement is possible and more widespread than in others (Estonia, Germany, Ireland, Latvia, Lithuania, the Netherlands, Slovakia and the UK). If PRP schemes are introduced following cost-saving motives, having such an opportunity for derogation might be expected to lessen the incidence of having a PRP scheme, as labour costs could be cut through derogation without having to refer to PRP. However, struggling companies permitted to pay lower wages than those agreed at higher levels of bargaining might be more prone to introduce or increase PRP schemes by way of compensation, or to offer performance incentives. However, judging from the recent literature, the cost-saving motive is just one reason among many why establishments choose to operate PRP schemes.

So in general, and also given the limited incidence of these practices, we do not expect to see a significant impact of derogation practices on the incidence of PRP.

The estimates confirm this expectation: neither form of PRP is significantly statistically associated with whether the company could derogate from higher-level agreements.

***Representation and voice***

This study draws on literature suggesting that where employees are represented by a single body, such as one trade union or a works council, such single-channel representation is more likely to be associated with the presence of some form of PRP. Traxler et al (2008) argue that: 'Within the case of articulated multi-employer bargaining, single-channel systems of employee workplace representation are superior to dual systems, as the former equip the unions with selective incentives for membership.'

Nergaard et al (2009) state that:

> *Because of the weaker ties and more fragile relations between sectoral and company pay negotiators in dual-channel systems, trade unions are likely to be more intent on curtailing the leeway at company level for (joint) development of variable pay schemes than in single-channel systems.*

The extent to which trade union density within an establishment will exert an influence on the incidence of PRP seems to be contingent, again, on the type of bargaining system. Nergaard et al (2009), following Barth et al (2008a), report that there is 'no universally negative relationship with union strength'. In Norway, Barth et al (2008a) find a negative relationship between highly unionised firms and the incidence of PRP. They raise two interesting points:

> *If membership in a trade union is perceived as insurance against fluctuating wages, a high-union density may reflect that workers in the firm, on average, are more risk-averse. The theoretical framework predicts that increased risk aversion will raise the compensation for the uncertainty embedded in PRP systems and thereby make fixed pay relatively more favourable to the firm. It is also likely that unions effectively reduce costs of monitoring effort. In a bargaining context, unions may share the interest of the employer in terms of monitoring effort of workers, and unions may have more efficient means of policing effort through peer control, group pressure, etc.*

A further interesting study addressing unions' objections to PRP on the basis of equality is Barth et al (2008b). Using two Norwegian-linked employer/employee surveys, the authors find that the introduction of performance-related pay is shown to raise residual wage inequality in non-union firms, but not in firms with high union density. However, in countries or cases where no multi-tier bargaining arrangements exist, as, for instance, in the UK, Nergaard et al (2009) report from the findings of their metalwork sector case studies that the capacity of unions to regulate PRP schemes collectively seems to correspond more directly to the strength of local unions. In such a case, one could therefore also expect a positive relationship between local trade union membership and the incidence of PRP when assuming that unions might be more in favour of PRP schemes with a higher capacity to govern, and on condition that they are able to influence the management decision whether or not to implement such a scheme.

The results using ECS data show that both low- and medium-level trade union density at establishment level increase the likelihood that establishments have adopted a PRP scheme, compared with

establishments with a high trade union density. The impact of lower degrees of representation is higher in the case of individual PRP than for group-based PRP, which could be interpreted as a general preference of unions for the latter.

The estimates further show that establishments with dual-channel representation (having a trade union and a works council) are less likely to have PRP schemes than establishments with single-channel representation. It has to be noted again here that these findings are not to be seen as independent of country specificities. The structure of employee representation at the workplace is quite heterogeneous across the European Union. In this sense the variable represents an 'aggregate' across Europe, but could not be generalised.

**Social dialogue climate and practices**

Social dialogue around the establishment of PRP is predominantly conducted at company or establishment level. However, establishment-level social dialogue is not independent of many contextual factors at higher levels. Figure 7 tries to summarise and conceptualise in further detail the possible links between the 'social dialogue climate and practices' and the outcome variable of interest – the existence or non-existence of PRP at establishment level. This relationship is by no means direct, but mediated or influenced by a number of other factors or contextual variables. Figure 7 also depicts which variables can be directly observed within the dataset and hence also taken into account, while information about further influences is missing.

In particular, we hypothesise that the attitude of the employee representative towards PRP is a crucial variable when it comes to setting up PRP schemes within a context of social dialogue. A positive attitude of the employee representative might favour the setting up of PRP schemes, while a negative attitude could result in their non-adoption.

This attitude is, however, not independent of the general climate of social dialogue at the workplace level (such as the quality of information provision by management, the incidence of any recent pay-related conflicts and the general influence of the employee representative). Employee representatives' attitudes may also have been shaped by such factors as:

- broader union motives and attitudes towards pay;
- the type of employee representation;
- the form of variable pay and the management's motive for introducing the scheme.

All of these factors may also have been influenced by the nature of industrial relations at higher levels. For example, if we recall Nergaard et al (2009), basic pay is a major concern in the UK and Spain. Company-level bargaining here is of greater importance because of non-existent or weaker higher-level agreements. In multi-tier systems (with sectoral agreements regarding basic pay) this is less likely to be of concern. From this, one could well expect to find different attitudes from employee representatives within different systems of industrial relations. Figure 7 tries to summarise two key areas:

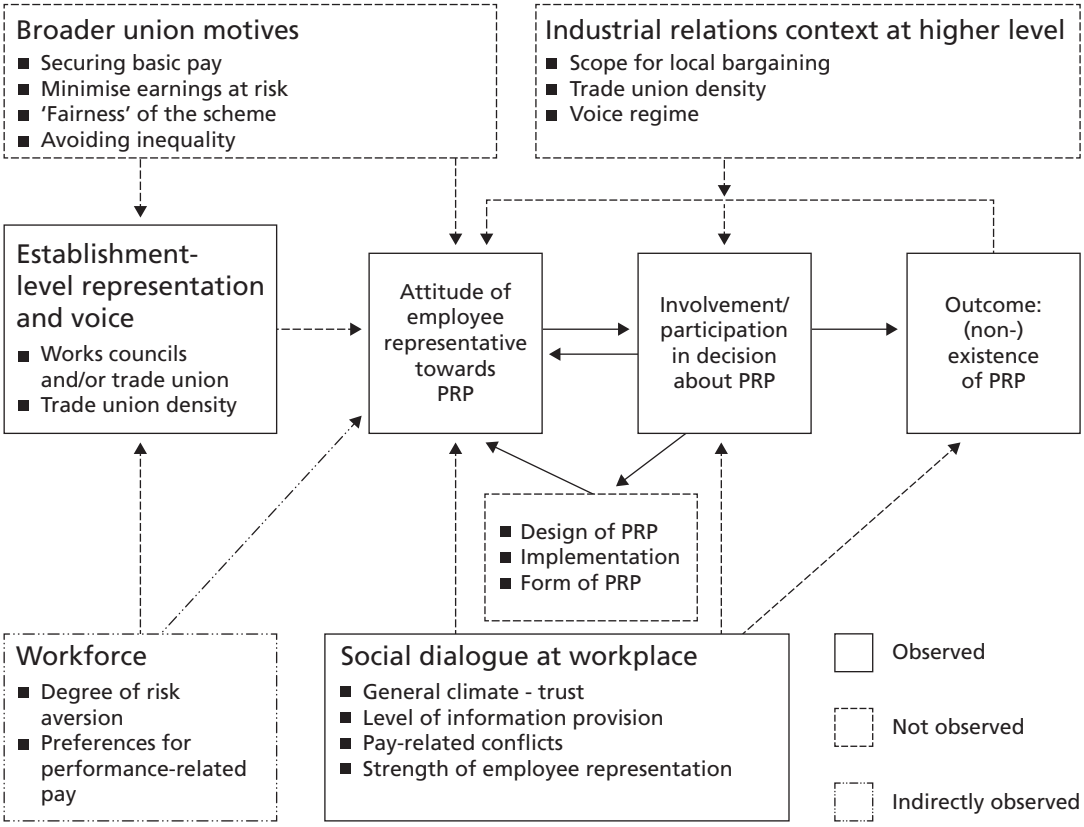
- which factors might influence employee representatives' attitude towards PRP;
- to what extent this attitude might have an influence on an establishment running a PRP scheme.

A particular company's workforce, their personal preferences for a particular form of PRP and in particular their degree of risk aversion could also have shaped their employee representative's attitude.

Social dialogue practices in relation to PRP, particularly whether and to what extent employee representatives are involved in setting up and designing such a pay scheme, its monitoring and the cash distribution, will therefore be influenced by the employee representative's attitude, the general climate and social dialogue practices at the establishment level, fostering or hindering the implementation of PRP.

However, the attitude of employee representatives towards PRP, as one can measure it here, does not fully reflect the argument of causality as depicted in Figure 7, since we cannot know at what point in time these attitudes have been shaped. This might have been either prior to the decision whether to introduce the PRP scheme, or at a later stage, perhaps reflecting the perceived future functioning of such a scheme.

**Figure 7: Links between attitude of employee representatives and (non-) existence of PRP**




Bearing in mind the non-observation of important variables and the time when attitudes have been shaped, two blocks of variables are introduced to this study's empirical framework, which should capture social dialogue climate and practices. The first block relates to general social dialogue climate and practices at the establishment and includes the degree of influence of the employee representative. The second block embraces pay-related social dialogue at the establishment level.

### *General social dialogue climate*

According to Pendleton and Poutsma (2005), the introduction of 'high-trust' financial participation schemes would be particularly hard to achieve where there is conflict between the main parties. We expect the same positive association to exist between a good climate of social dialogue and PRP, while

bearing in mind the possibility that the views of employers and employees (and their representatives) may diverge more widely over the issue of PRP than that of financial participation. (A point worth bearing in mind is that well-functioning social dialogue is not necessarily characterised by the absence of conflict, but may actually put divergent views on the table (Bryson et al, forthcoming).

We operationalised the general social dialogue climate by means of the following variables:

- the employee representative's perception of it;
- the employee representative's generally perceived level of influence in various areas;
- management's perception of employee representatives – in particular, whether it thinks they help to improve performance (given that we are dealing with PRP, this focus seems to be justified);
- whether a company's provision of information about its economic and financial situation is timely and voluntary, frequent, sufficiently detailed and open to all – this latter variable could be also interpreted as an indicator of trust.

Our estimates indicate that the climate of industrial relations generally has some impact on whether PRPs are set up. When employee representatives deem the industrial relations climate to be excellent, the company is significantly less likely to have adopted an individual PRP scheme, but no such association exists with group-based PRP. This result points towards the interpretation that an organisational environment conducive to social dialogue may require less formalised instruments to align employees with corporate goals or to introduce performance-enhancing forms of pay. However, it might also show employee representatives' preference for group-based PRP.

However, no statistically significant link could be found to support management perceptions that employee representatives might help to improve performance. There is also no statistically significant link between the employee representatives' general level of influence on different topics and the incidence of individual PRP. However, our estimates show that establishments where employee representatives rate their influence as 'high' have a significantly lower likelihood of having adopted a group-based pay scheme than those establishments where the employee representative's influence is only 'low'.

Finally, excellent information provision is positively linked to the incidence of both individual and group-based PRP, which would support our expectations.

***Pay-related social dialogue***

Industrial relations literature has produced a rather homogenous picture with regard to the attitudes of employee representatives towards PRP. Individual PRP is said to represent a greater challenge to existing conventions and outcomes (Heery, 2000). Meanwhile, Marginson et al (2008) make the following observation about the banking sector: 'Union officials and representatives shared a dislike in principle of appraisal-based pay, but have come to a pragmatic acceptance in practice.'

Furthermore, according to Pendleton (1997), profit-related pay tends to be less problematic for unions than other forms of bonus or appraisal-based pay. It is commonly viewed as an equitably shared return on the labour invested by all workers in a company, over and above what may be secured through conventional bargaining. Employers see it as a means of reinforcing communication and financial participation rather than individual incentivisation.

This study assumes that the influence of the employee representatives on the incidence of PRP is mediated through the extent to which employee representatives are involved in setting up such schemes, and at a later stage in monitoring their regular implementation. Here again, this is only a rough way of assessing the influence of employee representatives, but this study does observe whether they have been involved in recent major changes of their remuneration system. Although there is a question about the stage of their involvement in the PRP scheme, we have abstained from using it because of concerns about validity. This might have also concerned other changes of the remuneration system beside the PRP. However, one can argue that when observing a recent involvement in changes of the remuneration systems, this also increases the likelihood of involvement in the PRP scheme. Again, the question of involvement is not independent of a number of contextual factors, most of which have already been discussed. High-trust workplaces are more likely to seek cooperative approaches in the design of PRP schemes (Arrowsmith et al, 2008) and, from a management perspective, engaging with trade unions over PRP schemes can bring benefits in terms of legitimacy and giving the trade unions a 'voice' (Marginson et al, 2008). Even so, union involvement in regulating PRP schemes through consultation and negotiation varies markedly according to the type of PRP schemes (Marginson et al, 2008) and it has also been reported (from some trade union representatives) that some trade unions abstain from negotiations on PRP. Additionally, Nergaard et al (2009) argue that there is a link between the involvement of employee representatives and the system of representation.

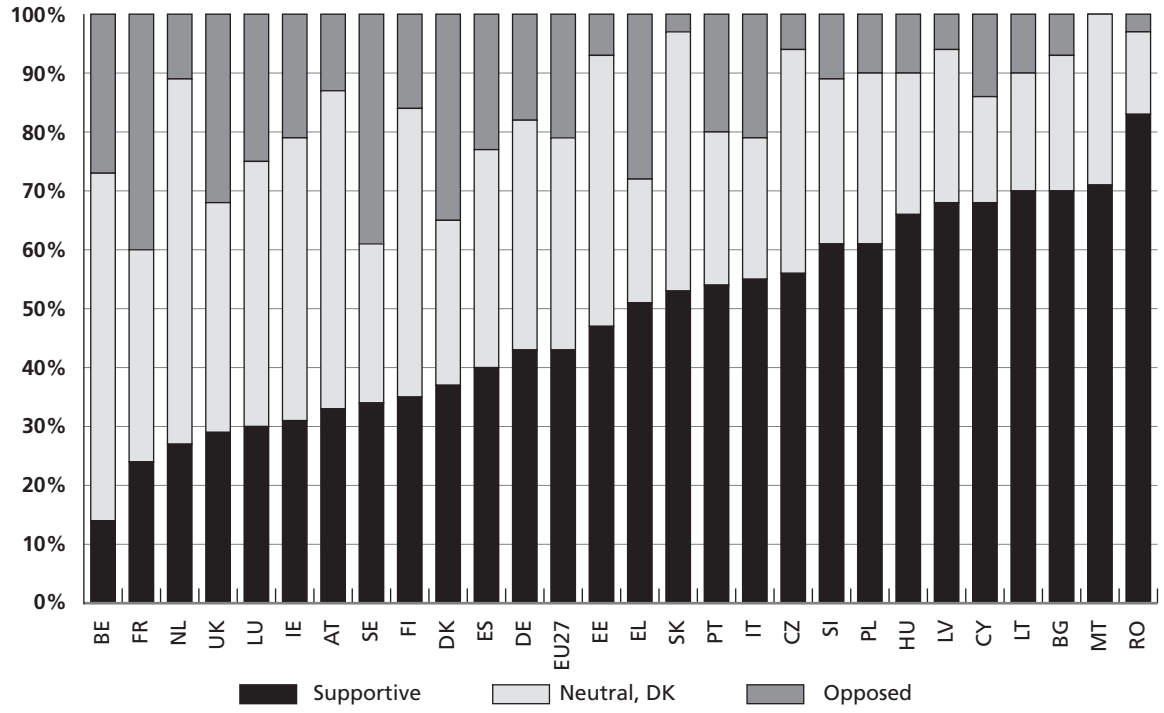
We hypothesised that a supportive attitude on the part of the employee representative towards PRP and their regular involvement in changes of the remuneration system increase the likelihood of having a PRP scheme. Our estimation results show that the representative's attitude towards performance-related variable has a significant impact on the odds of an establishment having PRP. If the employee representative is supportive towards PRP, the establishment is significantly more likely to have adopted such a scheme than where the employee representative reports to be 'neutral'. However, employee representatives who report being 'against' PRP are more likely to be in establishments where no scheme has been set up. The impact of the employee representatives' attitude on the incidence of such schemes is more pronounced in the case of individual PRP schemes than in the case of group-based PRP schemes, which could reflect their general preference for collective pay over individual-based pay. Note, however, that the link of causality is not clear, as opinions and attitudes could also have been shaped by the introduction of the scheme.

The estimates also show that when changes in the remuneration system had recently been introduced, this had a significant impact on the likelihood of the establishment having adopted an individual PRP scheme. The likelihood of having an individual PRP scheme was higher where the employee representative had been involved in changes to the remuneration system. For group-based PRP schemes, there is no significant difference between companies where there was no involvement of the employee representative and those for which there is no information about whether an employee representative was involved.

However, a comparison of the results obtained from the basic models with the inclusion of country dummies shows that the statistical significance of employee representatives' support for PRP diminishes when country information is included, and the significance of the employee representatives' opposition vanishes. This means that employee representatives' attitudes seem to be shaped, or are at least distinct, at 'country level' – for whatever reason. A closer investigation of the data reveals that there is indeed a high variation of employee representative attitudes between countries. Figure 8 shows a considerable range of support for PRP across countries, ranging from 14% in Belgium to 83% in Bulgaria. There is a clear division between EU15 countries and new Member

States (NMS). Support is highest and above the EU average among the NMS. However, among three EU15 countries – Greece, Italy and Portugal – employee representatives also show a higher-than-average support for PRP. In contrast, attitudes vary far less across sectors. One potential explanation for this could be a lower level of basic pay rates in the NMS, which might make employees (and hence their representatives) more inclined to support pay on top of what can be conventionally secured. A further explanation could be different notions of fairness and equality across the Member States, which could have been shaped historically. A thorough investigation of country-level differences with regard to employee representatives' attitudes would clearly merit further research.

**Figure 8: Employee representatives' attitudes towards PRP by country (%)**




*Note:* Unweighted data, EU27.

*Source:* ECS 2009.

## PRP across all establishments

To what extent can the findings established above, which are valid for the sample of establishments where social dialogue exists, be generalised to all establishments? In order to determine this, similar logit models as above were estimated, with the exception that the block of social dialogue practices had to be left out. Overall, the estimates, reported in Table A5 and A6 in Annex 2 show that the findings remain quite stable, with some minor exceptions.

Using the full sample, the following conclusions could be drawn.

First, PRP is positively associated with having employee representation in place. Companies with single- or dual-channel forms of employee representatives are more likely to have some kind of PRP in place than establishments without employee representatives. The likelihood is higher in the case of those companies with a works council and a trade union.

Second, there is still a positive link between the incidence of PRP and overtime being compensated for with money or time in lieu, but the association is stronger than in the sample where employee representatives exist. Also, those establishments that do not compensate for overtime are more likely to have a PRP scheme than those establishments where no overtime is worked at all. However, we do not attempt to interpret these findings, as the (substantial) block of establishments where no information on overtime is available is also significantly different (and with a lower incidence of PRP) from those establishments where overtime is not practised.

Third, performance pay is linked with a comparatively highly qualified workforce. Establishments with a higher proportion of highly qualified workers, compared with the sectoral average, are slightly more likely to have PRP than establishments whose proportion of highly qualified workers is at the sectoral median. Establishments with a lower-than-sectoral median proportion of highly qualified workers are considerably less likely to have a PRP system. No such association with the workforce existed within the sample where interviews with employee representatives exist.

Finally, PRP is, by and large, not present in establishments where collective agreements exist. Only the case of single-employer bargaining (at establishment level) remains (weakly) positively significant.

## Broad-based PRP schemes

Does the type of PRP scheme make any difference? Table 16 summarises the distribution of the incidence of broad-based schemes at sectoral level (those that are available to more than 50% of a company's workforce) and narrow-based schemes (those available to less than 50% of the workforce). In the case of individual PRP, sectors are rather homogenous in their incidence of broad- versus narrow-based schemes. The majority of companies (between 74% and 87% in 10 out of 11 sectors) with a PRP scheme provide only narrow-based schemes. The exception is financial intermediation, in which almost half (46%) of the individual PRP schemes are broad-based. In the case of group-based PRP, broad-based schemes are rather limited as well, ranging from 6% of companies in the education sector to 26% of companies in financial intermediation.

**Table 16: Broad- and narrow-based PRP schemes by sector**

| | Individual PRP | | | Group-based PRP | | |
|---|---|---|---|---|---|---|
| | Narrow-based | Broad-based | | Narrow-based | Broad-based | |
| Production activities | 78% | 22% | 100% | 79% | 21% | 100% |
| Construction | 82% | 18% | 100% | 83% | 17% | 100% |
| Wholesale and Retail | 74% | 26% | 100% | 79% | 21% | 100% |
| Hotels and restaurants | 80% | 20% | 100% | 85% | 15% | 100% |
| Transport, storage, communication | 81% | 19% | 100% | 85% | 15% | 100% |
| Financial intermediation | 54% | 46% | 100% | 74% | 26% | 100% |
| Real estate, renting and business activities | 78% | 22% | 100% | 82% | 18% | 100% |
| Public administration | 79% | 21% | 100% | 92% | 8% | 100% |
| Education | 78% | 22% | 100% | 94% | 6% | 100% |
| Social work | 87% | 13% | 100% | 93% | 7% | 100% |
| Other community social services | 83% | 17% | 100% | 91% | 9% | 100% |
| Total | 79% | 21% | 100% | 85% | 15% | 100% |

*Note:* Sample within EU27 establishments, where interviews with employee representatives exist. (N=6,214); narrow-based schemes: less than 50% of employees are subject to the scheme; broad-based: more than 50% of employees are subject to the scheme.

*Source:* ECS 2009.

In order to establish whether the 'special case' of broad-based schemes can be considered different from their determinants as the case of 'any' PRP scheme, similar logit models as presented above have been estimated. The results of this model are summarised in Table A7 in Annex 2.

By and large, the estimates show that the findings remain relatively stable compared with those cases of having 'any scheme', yet with some exceptions. In the case of broad-based schemes, the following differences are worth mentioning.

**Sectoral differences** First, companies in the financial intermediation sector are more likely to have broad-based schemes (compared with the production sector) than in the case of having any other kind of scheme scheme.

**No establishment size effect** The establishment size effect vanishes. This is most noticeable among small establishments, which are more likely to have broad-based individual PRP schemes than large companies (those with more than 250 employees). No significant difference exists between establishments with between 20 and 249 employees and large establishments. This finding seems to be quite intuitive, since one would expect bigger companies to have more opportunity to provide PRP selectively – for instance, to sales staff or those working on an assembly line. Providing PRP 'selectively' in small companies could be seen as too costly, both financially and because of the potential for creating strife among a small workforce, possibly affecting productivity and industrial relations.

**Financial situation** Whether a company is in an excellent financial situation is not a significant determinant for the incidence of a broad-based scheme. This could suggest that companies doing particularly well would rather provide PRP selectively (for certain departments only or in the form of individual bonuses for positive results), rather than as bonuses for the whole workforce. Neither is there any significant link between the incidence of restructuring and broad-based individual PRP.

**Flexibility** Internal aspects of flexibility are also, to a lesser extent, associated with broad-based schemes. There is no statistically significant association of broad-based individual PRP schemes with overtime being compensated for with time or money off, or working time flexibility without accumulation of hours. Working time flexibility with accumulation of hours does, however, remain significantly linked to broad-based PRP of both kinds.

**No link with autonomous teamwork** In the case of broad-based group-based schemes, the detected positive link with autonomous teamwork vanishes. In this sense, group-based PRP is more associated with the remuneration of selective groups of employees working together jointly than with the whole workforce being subject to such a scheme.

**Highly qualified workforce** As in the case of PRP across all establishments, there is a significant link between a highly qualified workforce and the incidence of broad-based individual PRP schemes. This connection could not be found for any PRP schemes in establishments where social dialogue exists. This could be cautiously interpreted in two ways: as social dialogue resulting in outcomes (on individual PRP schemes) that are independent of the skill level of the workforce; or as social dialogue resulting in broad-based rather than selective schemes, when the skill level of the workforce is taken into account.

**Industrial relations and social dialogue** Structural industrial relations turn out to be insignificant variables as determinants for broad-based pay. Almost all forms of collective bargaining are insignificant in the case of broad-based schemes. Only company-level (single-employer) bargaining and broad-based individual PRP are weakly associated with each other. Also, the negative connection with the level of trade union density vanishes for group-based PRP in the case of broad-based schemes. Equally, some of

the variables related to the social dialogue climate (such as the employee representative's perception of the industrial relations climate or excellent information provision) cease to be significant in the case of broad-based schemes. However, the management view of the employee representative and broad-based group-based PRP are positively linked. Industrial action related to pay is also positively associated with broad-based schemes. Finally, just as with all types of PRP, the employee representative's opposition has no significant (negative) impact on the incidence of broad-based group-based PRP.

## PRP, employment relations and industrial relations regimes

The above findings are valid for the EU27 in general. However, it is well known that industrial relations structures differ between companies, being strongly influenced by the country and possibly also the sector (Bechter, Brandl and Meardi, 2011).

In this section we will therefore try to establish whether the findings on industrial relations structures and on working time flexibility measures and PRP do carry over to different regimes of industrial relations or whether they are different within different groups of countries. For this purpose we can take Jelle Visser's classification of industrial relations regimes as a starting point (Visser, 2008). Compare Table 1 a grouping of countries within the regimes.

Table 17 shows that the incidence of both individual and group-based PRP is equally distributed across the industrial relations clusters. Around 37% of establishments across Europe run an individual PRP scheme. The Centre-East records the highest incidence of individual PRP schemes (40% of establishments) and the West (32% of establishments) the lowest. Group-based PRP stands at 23% across the EU27, with the highest incidence being recorded in the North (28%) and the lowest in the Centre-West (20%).

**Table 17: Incidence of PRP in different industrial relations regimes**

| | | Visser classification of industrial relations models | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | North | South | West | Centre-East | Centre-West | |
| IPRP | .00 | 1,903 | 4,251 | 1,946 | 3,974 | 3,461 | 15,535 |
| | 1.00 | 1,121 | 2,277 | 921 | 2,676 | 2,110 | 9,105 |
| | % | 37 | 35 | 32 | 40 | 38 | 37 |
| GPRP | .00 | 2,184 | 5,142 | 2,249 | 4,971 | 4,444 | 18,990 |
| | 1.00 | 840 | 1,386 | 618 | 1,679 | 1,127 | 5,650 |
| | % | 28 | 21 | 22 | 25 | 20 | 23 |
| Total number of cases within regime | | 3,024 | 6,528 | 2,867 | 6,650 | 5,571 | 24,640 |

*Note:* 'IPRP' = individual performance-related pay; 'GPRP' = group-based performance-related pay.

This study estimates the same models as before, focusing on any type of PRP, using first the full sample of establishments and then the sample where interviews with employee representatives exist, but each of them within the five different regimes of industrial relations. The results for the full sample of establishments are given in Table 18. Table 19 is based on the sample where interviews with employee representatives exist and summarises the impact of the employee representatives' attitudes towards PRP by regime. For reasons of space this study displays only results for the industrial relations variables as well as those on flexibility practices, as one expects the choice between these and the use of PRP to differ across regimes.

The estimates show that one cannot generalise the findings across the different industrial relations regimes. In particular, the West cluster (which comprises Cyprus, Ireland, Malta and the UK) stands out.

**Table 18: Incidence of PRP and industrial relations in industrial relations regimes**

| | M11: North | M12: South | M13: West | M14: Centre-East | M15: Centre-West |
|---|---|---|---|---|---|
| **Dependent** | PRP | PRP | PRP | PRP | PRP |
| **Nagelkerke R2** | 0.203 | 0.172 | 0.122 | 0.158 | 0.226 |
| **Hosmer Lemeshow** | 0.441 | 0.318 | 0.178 | 0.664 | 0.602 |
| **Sample** | Full sample | Full sample | Full sample | Full sample | Full sample |

| | Sig. | Odds ratio | Sig. | Odds ratio | Sig. | Odds ratio | Sig. | Odds ratio | Sig. | Odds ratio |
|---|---|---|---|---|---|---|---|---|---|---|
| **No overtime worked** | ** | 1.00 | *** | 1.00 | *** | 1.00 | *** | 1.00 | ** | 1.00 |
| **Overtime compensated for with money or time off** | | 1.14 | *** | 1.64 | ** | 1.34 | *** | 1.83 | *** | 1.33 |
| **Overtime not compensated for** | ** | 2.16 | | 1.57 | *** | 2.18 | | 0.98 | | 1.10 |
| **No information on overtime** | | 0.37 | | 1.14 | | 0.81 | | 1.08 | | 1.10 |
| **No working time flexibility** | *** | 1.00 | *** | 1.00 | | 1.00 | *** | 1.00 | *** | 1.00 |
| **Working time flexibility with accumulation of hours** | *** | 1.66 | *** | 1.47 | | 1.16 | *** | 1.51 | *** | 1.60 |
| **Working time flexibility without accumulation of hours** | *** | 1.75 | *** | 1.25 | ** | 1.24 | | 1.10 | ** | 1.31 |
| **Foreseeability of the workload** | | 0.96 | | 1.07 | | 0.95 | | 0.97 | | 1.09 |
| **Low CBC at sectoral level (ref.)** | | 1.00 | *** | 1.00 | *** | 1.00 | *** | 1.00 | *** | 1.00 |
| **High CBC at sectoral level** | *** | 1.58 | *** | 12.75 | *** | 0.26 | ** | 1.42 | | 1.33 |
| **Medium CBC at sectoral level** | | | *** | 9.75 | *** | 0.64 | *** | 1.59 | | 0.84 |
| **No agreement (ref.)** | * | 1.00 | *** | 1.00 | | 1.00 | | 1.00 | ** | 1.00 |
| **Single-employer bargaining** | | 0.83 | *** | 1.35 | | 1.06 | | 0.99 | *** | 1.30 |
| **Multi-employer bargaining** | | 1.05 | *** | 1.35 | | 0.83 | | 1.09 | ** | 1.21 |
| **Derogation from collective agreement possible** | | 1.00 | | 0.94 | * | 0.64 | | 0.95 | | 1.14 |
| **No employee representation** | *** | 1.00 | | 1.00 | | 1.00 | *** | 1.00 | ** | 1.00 |
| **Single-channel representation** | | 0.92 | * | 0.88 | | 1.08 | | 1.07 | ** | 1.18 |
| **Dual-channel representation** | *** | 2.00 | | 0.98 | | 1.02 | *** | 0.71 | | 0.99 |
| **Constant** | ** | 0.44 | *** | 0.03 | | 0.59 | ** | 0.49 | ** | 0.33 |

*Note:* CBC = collective bargaining coverage; logit models across the sample of all establishments. All variables included in the basic model (M1) have also been controlled for here, but are not displayed for reasons of space. Significance levels: *** 0; ** 5%, * 10%; 'ref.' = reference category (for this category, the 'odds ratio' is always '1.00').

Significant and positive influence

Significant and negative influence

No significant influence detected

Table 19 depicts the results of a further logit model in the sample of establishments where interviews with employee representatives exist. It focuses in particular on employee representatives' attitudes and the incidence of PRP within industrial relations regimes. In order to detect whether there is any specific interplay, interaction effects were estimated between industrial relations regimes and employee representatives' attitudes. The reference category here is a neutral attitude of employee representatives in Centre-West. The odds ratio of the other regime/attitude pairs have to be interpreted against this reference category.

**Table 19: Interaction of employee representative's attitude with industrial relation regimes**

| Dependent variable | M16: PRP | |
|---|---|---|
| **Independent** | **Sig.** | **Odds ratio** |
| **Neutrality - Centre-West (ref.)** | *** | 1.000 |
| **Support - North** | | 1.097 |
| **Support - South** | ** | .788 |
| **Support - West** | * | .692 |
| **Support - Centre-East** | *** | 1.527 |
| **Opposition - North** | *** | .561 |
| **Opposition - South** | | .812 |
| **Opposition - West** | * | .611 |
| **Opposition - Centre-East** | * | 1.527 |
| | | |
| **Hosmer Lemeshow** | 0.300 | |
| **Nagelkerke R2** | 0.164 | |

*Note:* Logit model among the sample of establishments where interviews with employee representatives exist. All variables included in the basic model (M1) have also been controlled for here, but are not displayed for reasons of space. Significance levels: *** 0; ** 5%, * 10%; 'ref.' = reference category (for this category, the 'odds ratio' is always '1.000').

Significant and positive influence

Significant and negative influence

No significant influence detected

### *West*

For the cluster of Western countries (Cyprus, Ireland, Malta and the UK), this study finds some striking differences compared with the rest. PRP is strongly and positively associated with overtime not being compensated for (and is still quite strongly positively associated with overtime being compensated for). Contrary to all the other regimes, we also do not find a significant association with working time flexibility. This means that establishments in the West cluster are most likely to use performance-related forms of pay when they do not compensate for overtime. They are also likely to use PRP when they compensate for overtime, but the issue of whether working time flexibility is granted is not associated with PRP. To put this finding in context, it must be pointed out that the UK makes the most widespread use of the opt-out clause as stipulated in the Working Time Directive. Furthermore, PRP in the West cluster is positively associated with the highly qualified workforce – a finding that is not true for all types of regimes. West is also the only cluster in which PRP is negatively associated with the ability to derogate from a collective agreement at the higher level. Contrary to the general findings, PRP in the West is also not associated with having any type of employee representation at workplace level and with collective bargaining of any form. There is further evidence that PRP in West is very unlikely to be found in establishments operating in sectors with medium or high levels of collective bargaining coverage. In West, PRP seems to be dealt with outside of industrial relations – or is likely not to exist where there are employment relations. This is also supported by the somewhat strange findings on employee representatives' attitudes: if in the West cluster employee representatives report that they are supportive of, or opposed to, PRP, the likelihood of there being a scheme is low, as compared with the reference category (neutrality in the Centre-West regime).

### *North*

This cluster of countries (Denmark, Finland and Sweden) is the only one where the compensation for overtime with time off or money is not significantly related to the incidence of PRP. However, there is a positive (and rather strong) association between overtime not being compensated for and PRP.

Hence, it could be suggested that companies in North use PRP instead of compensating for overtime. An explanation for this might be that paying overtime is regulated (within collective agreements) and comparatively costly within these countries.[3] When the success of some work might be heavily influenced by individual effort (in terms of working hours), companies in the North cluster might be more inclined to use PRP instead of compensating the employees for overtime worked (at presumably high wages and under stringent legislative requirements). Furthermore, North is the cluster with the highest incidence of flexible working time arrangements (and where workers are most likley to be able to accumulate working hours), which – by definition – reduces the incidence of overtime. This could explain why the compensation for overtime with money or time off is not related to the incidence of PRP.

North is, furthermore, the only cluster where time off for training is not connected with PRP. An explanation for this could be that there is, comparatively, a lot of training in North and so it is not necessarily to be found among the more sophisticated HR practices of this group, as could be argued for other countries/regimes and group-based PRP in particular. As for industrial relations, this study finds that, in North, both types of PRP are associated with dual-channel representations, but there is no empirical connection between PRP and the incidence of a collective wage agreement. However, PRP in North is present in a context of a high rate of collective bargaining coverage at sectoral level. Employee representatives' opposition to PRP schemes in North significantly decreases the odds of having a scheme in place. However, there is no significant link between employee representatives' support for PRP in North and its incidence (compared with the reference category, Centre-West neutrality).

***Centre-East, Centre-West, South***

In Centre-East (Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia), which has the highest incidence of individual PRP schemes, we find PRP to be positively associated with both working time flexibility (with accumulation of hours) and overtime being compensated for. There is no association (as in North or Centre-East) between the practice of not compensating for overtime and PRP. Centre-East has the highest positive association between the incidence of time off granted for training and PRP among all regimes. As for industrial relations structures, dual-channel forms of representation at the workplace are associated with a lower incidence of PRP in Centre-East. PRP is, furthermore, associated with only high and medium collective bargaining coverage at sectoral level, but not with the actual incidence of collective wage agreements at company level. Given the high incidence of PRP in Centre-East, both a supportive attitude and opposition by the employee representative towards PRP are still associated with higher odds for having PRP, as compared with Centre-West and neutral employee representatives.

The Centre-West cluster (Austria, Belgium, Denmark, Luxembourg, the Netherlands and Slovenia) is, in some regards, similar to the Centre-East cluster in terms of PRP and workplace practices. We find that working time flexibility and compensated overtime is positively associated with PRP, with no significant indication of PRP's substituting for the non-compensation of overtime. In contrast to the Centre-East regime, however, the PRP in Centre-West seems to be established within a bargaining context – whether at the company level or higher, and is more likely to exist when a single-channel employee representation exists.

---

[3] One can see this, for instance, in the cases of Sweden (http://www.eurofound.europa.eu/emire/SWEDEN/ANCHOR--Ouml-VERTIDSERS-Auml-TTNING-SE.htm) and Finland (http://www.eurofound.europa.eu/emire/FINLAND/ANCHOR-YLITY-Ouml--Ouml-VERTIDSARBETE-FI.htm).

In the South cluster (France, Greece, Italy, Portugal and Spain), PRP is also positively associated with working time flexibility and seems to be no substitute for uncompensated overtime. PRP in South is independent of the existence of employee representation, but is very likely to exist within a context of collective bargaining, especially when collective bargaining coverage at sectoral level is high. Support of the employee representative is still associated with lower odds of PRP as compared with Centre-West and neutral employee representatives.

# Summary and conclusions 4

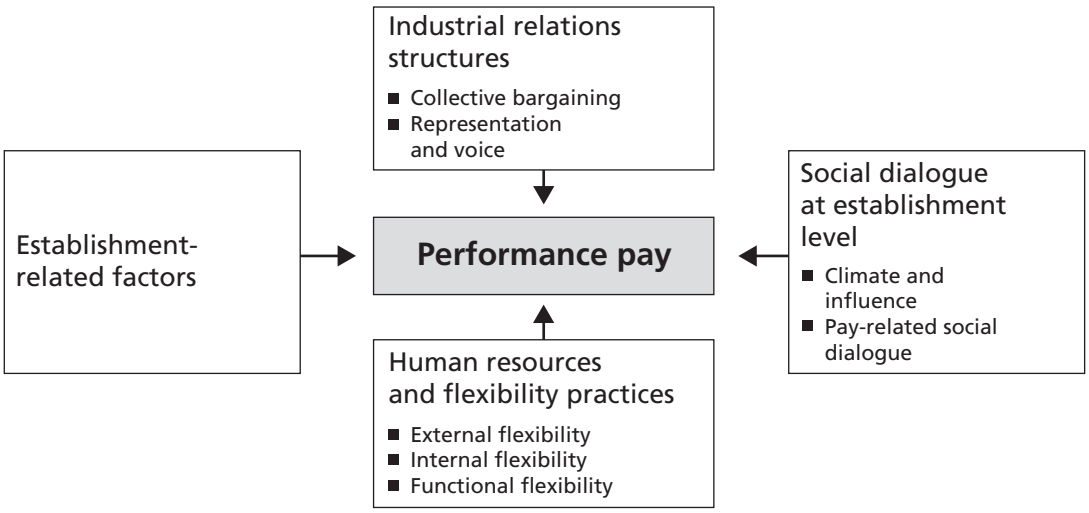
## The research: Framework and operationalisation

This report looked into the incidence of performance-related pay (PRP) in European establishments and its determinants, with a specific focus on the role of employment relations. Drawing on data from the ECS 2009, more than 27,000 interviews with human resources managers and more than 6,000 interviews with employee representatives could be included in the empirical research. The research questions were set as follows.

- What factors distinguish those companies that have set up (any type of) PRP schemes from those that have not?
- Can any significant links be found between industrial relations structures and social dialogue practices at establishment level and the incidence of PRP?
- Do the attitudes of employee representatives on PRP have a significant impact on whether such a system has been put in place?
- To what extent do the above-mentioned questions differ for group-based and individual-based schemes?
- Can differences be found across different types of industrial relations systems?

Based on a literature review, together with explorative data analysis, the research was guided by the conceptual framework depicted in Figure 9. According to this framework it was expected that the existence of PRP within European establishments could be explained through a variety of factors.

**Figure 9 (Figure 5 reprised): The conceptual framework**




Besides establishment-related factors (such as size or sector), human resources and flexibility practices carried out at establishment level were expected to be good indicators as to whether a PRP scheme exists. These practices could be measures for external flexibility (such as the use of temporary agency workers), internal flexibility measures (using working time flexibility, for instance) or functional flexibility (such as training measures). Furthermore, the research hypothesised that industrial relations aspects such as the form of wage-related collective bargaining, the form and presence of employee representation or the degree of trade union representation within an establishment could be related to the incidence of PRP. The main interest, finally, was whether and

to what extent social dialogue at establishment level (the general climate and degree of influence of the employee representative as well as aspects of pay-related social dialogue) could be associated with the existence of PRP.

Guided by this framework and using multivariate logit models, which allowed the consideration of these factors 'simultaneously', it could be shown that each of the above factors exert an influence on whether an establishment has PRP, albeit to different degrees.

## Results of the empirical research

### What factors distinguish those companies that have set up a PRP scheme from those that have not?

The study looked only at those establishments where employee representatives – and interviews with them – were available. From what can be explained through our models, the 'best prediction' of whether an establishment has individual PRP comes as a result of knowing where an establishment is located as well as factors such as sector and company size. Inclusion of country and establishment factors already account for 75% of the 'explanatory' or 'predictive' power of our models. However, there is also further value in taking into consideration the following additional factors that this study has hypothesised as having an impact.

- Human resources (HR) and flexibility practices (15%), with particular added value of knowing internal (8%) and functional flexibility practices (5%).
- Pay-related social dialogue (6%) can be added next followed by the inclusion of variables on representation and voice (4%).
- Finally, including knowledge of industrial relation structures (1%) as well as the 'general' climate of social dialogue (1%) in the establishment adds only very little additional information to the model.

#### *Establishment-related factors*

First and foremost, the sector of activity is an important determinant for PRP. Establishments operating within financial intermediation, commerce or the real estate and business service industries are considerably more likely to have adopted some kind of PRP than others. It could also be shown that the larger the establishment, the higher the odds that it has a PRP scheme. However, this is not the case for 'broad-based' schemes, which are found particularly in the smallest establishments. Foreign ownership is a further strong predictor for PRP. Establishments in foreign ownership have more than 60% higher odds of having a PRP than establishments which are predominantly in domestic ownership. Establishments with an 'excellent' economic situation are also 19% more likely to have PRP schemes in place compared to establishments that are not in such good shape financially.

#### *Human resources and flexibility practices*

An important question is whether the use of contractual or other forms of flexibility reduces the need for implementing PRP, since better productivity might then be realised through sophisticated management systems or different company cultures. The findings in relation to this question are mixed. For external (contractual) flexibility measures, there is some weak evidence that companies do use fixed-term contracts or higher proportions of part-time workers instead of using PRP. No significant connection could be found for the use of temporary agency workers. Our empirical estimates, in relation to internal flexibility measures, do however support the findings of Arrowsmith

and Marginson (2010), which indicate that companies have 'aggregated' the PRP schemes in support of broader motives, just as this study finds evidence that companies use PRP together with other HR measures.

PRP is more likely to exist in establishments that have previously undergone restructuring. If establishments grant working time flexibility to their employees with the ability to accumulate hours, the odds of them also having individual PRP schemes increase by 55% compared with companies that do not grant any working time flexibility.

Establishments that compensate for overtime with money or time off are also more likely to have PRP schemes. There is no evidence that PRP would be used to avoid the costly compensation for overtime within the sample of establishments where employee representatives exist. Looking into the full sample of establishments, however, it could also be found that companies that do not compensate for overtime have higher odds of having PRP schemes. Tentatively, it could be concluded that employee representation has an impact on avoiding the substitution of overtime compensation with PRP.

However, it needs to be stressed that due to a high number of missing cases, the findings here are not necessarily robust. Teamwork is, furthermore, linked only to group-based PRP: establishments with supervised teamwork use group-based PRP to a much lower extent (-26% lower odds) and establishments with autonomous teamwork use group-based PRP to a higher extent (+18% higher odds) than establishments where no teamwork is practised at all.

Our findings in relation to broad-based schemes, however, show that group-based PRP is more associated with the remuneration of selective groups of employees working together than with the whole workforce being subject to such a scheme.

The results for functional flexibility are in line with those for internal flexibility practices. Establishments that grant time off for training are also more likely to provide PRP. Within the sample where employee representatives exist, no connection could be found between the proportion of highly skilled workers and the incidence of PRP. However, this does not carry over to the whole sample of establishments, where a clear link between the qualifications level of the workforce and the incidence of PRP exists. A tentative conclusion here is that employee representation and the existence of social dialogue within an establishment result in schemes that are independent of the workforce composition.

**Can any significant links be found between industrial relations structures and social dialogue practices at establishment level and the incidence of PRP?**

The results show that throughout Europe, PRP is more likely to have been implemented in establishments that have employee representatives and, in particular, is more often associated with single forms of representation within the establishment (either with a works council or with a trade union) than with dual forms of representation. It must be remembered, however, that this, to a large extent, reflects the different incidence and form of these bodies within different countries.

Together with the finding that establishments with a wage agreement have higher odds of having PRP, it can be concluded that, altogether and across Europe, PRP is an issue that can be dealt with within industrial relations structures at establishment level. It is not a phenomenon that is placed particularly outside the reach of social dialogue. There is also no evidence for the derogation powers of collective agreements being linked in any way to the incidence of PRP. Unions' general dislike of performance-based pay, as suggested by the work of Marginson, could be established across Europe through the finding that low and medium levels of trade union density at the establishment level

increase the odds that establishments have adopted a PRP scheme, compared with establishments with a high trade union density.

Furthermore, this study also found that when a company does not have an individual PRP scheme, the employee representative is more likely to report an excellent climate of industrial relations. This result points towards the interpretation that an organisational environment conducive to social dialogue may require less formalised instruments to align employees with corporate goals or to introduce performance-enhancing forms of pay.

Beside this, however, there is also stronger empirical evidence from our data for the second (case study-based) finding from Marginson et al (2008) that unions 'can retain their role in collective bargaining' and 'have come to a pragmatic acceptance' by considering social dialogue practices at establishment level.

This study finds evidence for a higher incidence of PRP within establishments where pay-related social dialogue is practised. PRP is more often to be found when employee representatives have been involved in recent changes of remuneration systems. General aspects of the social dialogue climate (such as an excellent provision of economic and financial information) within an establishment also affect whether it has a PRP scheme, but only account for a tiny fraction of what other factors explain.

Finally, no significant link could be found between the presence (or not) of PRP and pay-related industrial action at companies.

**Do the attitudes of employee representatives on PRP have a significant impact on whether such a system has been put in place?**

Indeed they do. There is clear empirical evidence that the incidence of PRP is associated with supportive employee representatives, while establishments with employee representatives who oppose PRP are less likely to have such a scheme.

Whether the representatives' attitude had been causal, or at least influential, in the implementation (or not) of a PRP scheme cannot be assessed with the dataset at hand. This is because it does not tell us at what point in time opinions have been shaped and the process of implementation of any schemes could not be monitored in detail. From the interviews with employee representatives, however, it became apparent that their support for PRP schemes is greater where they have been involved in discussions about setting up such schemes than when decisions had been made without their input. There is also a higher level of support when the employee representative never or seldom receives individual complaints in relation to PRP.

However, the attitude of employee representatives is strongly linked to country, with a huge variation between countries. The highest support rates for PRP can be found in the new Member States and for those EU15 countries in which wage levels are lower (for example, Italy, Greece and Portugal). This suggests a link between national-level pay practices, national-level social partner discussions and PRP-related social dialogue practices at the establishment level. Some industrial relations-related explanations for this have been given, for instance, by Nergaard et al (2009) or Traxler et al (2008). More research on the determinants of employee representatives' attitudes towards different types of PRP and their relation to, and variation by, country would be a rewarding path.

**To what extent do these questions differ for group-based and individual-based schemes?**

By and large, the findings reported are quite similar for both types of schemes. One notable exception is the association of group-based pay with autonomous teamwork, while there is no such connection with individual-based pay. Supervised teamwork, however, is a substitute for group performance-based pay, so group-based PRP is used to decrease the cost of monitoring teamwork.

Furthermore, this study finds some evidence for group-based schemes being more likely to be associated with restructuring than individual PRP. Companies having undergone previous restructuring have 23% higher odds of having adopted an individual PRP scheme and 32% higher odds of having a group-based PRP scheme than their counterparts who have not had recent restructuring. This would support our line of argument that companies that have experienced such 'organisational stress' may see a stronger need to introduce HR practices that align and incentivise employees, such as PRP in general and group-based schemes (as a more sophisticated HR practice) in particular.

There is also some evidence that employee representatives give greater support to group-based PRP than individual schemes. The study shows that:

- the impact of the degree of trade union membership on the existence of PRP is greater in the case of individual PRP than for group-based PRP;
- no statistically significant link exists between employee representatives and group-based pay, while a negative relationship could be found for individual PRP.

**Can differences be found across different types of industrial relations regimes?**

Some of the findings related to industrial relations and flexibility practices do differ within different regimes of industrial relations. In particular, the West cluster of countries (Cyprus, Ireland, Malta and the UK) stands out. West is the only cluster where working time flexibility is not significantly (and positively) linked to the incidence of PRP.

This study suggests that a possible explanation for this might be due to the high incidence of opt-out arrangements from the Working Time Directive in the UK. This could have reduced the necessity for companies to allow for working time flexibility. Together with the North cluster (comprising Denmark, Finland and Sweden), the non-compensation of overtime in West is positively associated with establishments having a PRP scheme. This suggests some kind of substitution within these regimes. PRP arrangements could be used by companies instead of compensating for overtime. As for the West cluster, again, a link to the ability to derogate from the Working Time Directive could be sought as an explanation. For North, the high costs of compensating for overtime – together with the high incidence of working time flexibility (which decreases the amount of overtime) – within North countries could serve as a possible explanation.

Furthermore, West is the only industrial relations regime where the ability to derogate from collective agreements reduces the odds of having PRP. In contrast to the other regimes, West is the only one where PRP seems to be present outside the reach of social partners. When there is a high or medium level of sectoral collective bargaining in West, it is very unlikely that PRP is in place, and there is no link to the existence of a collective wage agreement and no evidence for the incidence of employee representation being associated with PRP. Altogether, these differentiated results suggest a cautious interpretation of the findings in the context of different industrial relations regimes and point towards the need for more research along these lines.

# Bibliography

(All Eurofound publications are available at www.eurofound.europa.eu)

Acemoglu, D. and Pischke, J. (1999a), 'The structure of wages and investment in general training', *Journal of Political Economy*, Vol. 107, No. 3.

Acemoglu, D. and Pischke, J. (1999b), 'Beyond Becker: Training in imperfect labour markets', *The Economic Journal*, Vol. 109, No. 453.

Arrowsmith, J. and Marginson, P. (2009), *Wage flexibility*, Eurofound, Dublin.

Arrowsmith, J. and Marginson, P. (2010), 'The decline of incentive pay in British manufacturing', *Industrial Relations Journal*, Vol. 41, No. 4.

Arrowsmith, J., Nicholaisen, H., Bechter, B. and Nonell, R. (2008), 'The management of variable pay in banking: forms and rationale in four European countries', in Blanpain, R. and Dickens, L. (eds), *Challenges in European employment relations*, Kluwer Law International, Alphen aan den Rjin, Netherlands, pp. 101–240.

Aumayr, C., Demetriades, S., Foden, D., Scepanovics, V. and Wolf, F. (2011, in press), *Employee representation at the establishment level*, Eurofound, Dublin.

Barth, E., Bratsberg, B., Hægeland, T., Raaum, O. (2008a), 'Who pays for performance?', *International Journal of Manpower*, Vol. 29, No. 1, pp. 8–29.

Barth, E., Bratsberg, B., Hægeland, T. and Raaum, O. (2008b), 'PRP and within-firm wage inequality', *Discussion Papers No. 535*, April 2008, Statistics Norway, Research Department.

Bechter, B., Brandl, B., Meardi, G., Eurofound (2011), *From national to sectoral industrial relations: Developments in sectoral industrial relations in the EU*, Publications Office of the European Union, Luxembourg.

Bryson, A., Forth, J., and George, A. (forthcoming), 'Social dialogue at the workplace' Eurofound, Dublin.

Dohmen, T. and Falk, A. (2006), *Performance pay and multi-dimensional sorting: Productivity, preferences and gender*, IZA Discussion paper series, Institute for the Study of Labor (IZA), Bonn.

Engellandt, A. and Riphahn, R. (2010), 'Evidence on incentive effects of subjective performance evaluations', *Industrial & Labor Relations Review*, Vol. 64, No. 2, article 2.

Eurofound (2001), Case studies on European works councils available online at http://www.eurofound.europa.eu/areas/participationatwork/ewccasestudies.htm.

European Economic and Social Committee (2010), *Employee financial participation in Europe*, Opinion, SOC/371, Brussels.

Heery, E. (2000), 'Trade unions and the management of reward', in Druker, J. and White, G. (eds), *Reward management*, Routledge, London.

Jacobi, O. (2010), National report on Germany (unpublished ) for Pedersini, R., Eurofound, (2011), *Social dialogue and recession in the automotive sector*, Publications Office of the European Union, Luxembourg.

Jungblut, J.M. and Storrie, D. (2011, in press), *HRM practices and establishment performance: An analysis using the European Company Survey 2009*, Eurofound, Dublin.

Kim, H. and Gong, Y. (2009), 'The roles of tacit knowledge and organisational collective behaviour in the relationship between group-based pay and firm performance', *Human Resource Management Journal,* Vol. 19, No. 2, pp. 120–139.

Kuhn, K. and Yockey, M. (2003), 'Variable pay as a risky choice: Determinants of the relative attractiveness of incentive plans', *Organisational Behavior and Human Decision Processes*, Vol. 90, pp. 323–41.

Lemieux, T., McLeod, W. and Parent, D. (2009), *Performance pay, wage flexibility, and hours of work*, McGill University, Montreal.

Lowitzsch, J., Hashi, I. and Woodward, R. (eds) (2009), *The PEPPER IV reports: Benchmarking of employee participation in profits and enterprise results in the Member and Candidate Countries of the European Union*, Inter-University Centre at the Institute for Eastern European Studies, Free University of Berlin.

Marginson, P., Arrowsmith, J. and Gray, M. (2008), 'Undermining or reframing collective bargaining? Variable pay in two sectors compared', *Human Resource Management Journal,* Vol. 18, No. 4, pp. 327–46.

Nelen, A., de Griep, A. and Fouarge, D. (2011), *Is part-time employment beneficial for firm productivity?*, IZA Discussion paper, No. 5423, Institute for the Study of Labor (IZA), Bonn.

Nergaard, K., Dølvik, J., Marginson, P., Arasanz Díaz, J. and Bechter, B. (2009), 'Engaging with variable pay: A comparative study of the metal industry', *European Journal of Industrial Relations,* Vol. 15, No. 2, pp. 121–42.

Park, R., Appelbaum, E. and Kruse, D. (2010), 'Employee involvement and group incentives in manufacturing companies: A multi-level analysis', *Human Resource Management Journal*, Vol. 20, No. 3, pp. 227–243.

Pendleton, A. (1997), 'Characteristics of workplaces with financial participation: Evidence from the Workplace Industrial Relations Survey', *Industrial Relations Journal*, Vol. 28, No. 2, pp. 103–19.

Pendleton, A. (2010), 'Employee share ownership and investment concentration: Which employee shareholders fail to diversify?', *Human Resource Management Journal*, Vol. 20, No. 2, pp. 157–74.

Pendleton, A. and Poutsma, E. (2005), *Financial participation: The role of governments and social partners,* Eurofound, Dublin.

Pendleton, A. and Robinson, A. (2010), 'Employee stock ownership, involvement, and productivity: An interaction-based approach', *Industrial & Labor Relations Review,* Vol. 64, No. 1.

Pendleton, A., Poutsma, E., Ommeren, van J. and Brewster, C. (2003), 'The incidence and determinants of employee share ownership and profit sharing in Europe', *Advances in the Economic Analysis of Participatory & Labor-Managed Firms,* Vol. 7, pp. 141–72.

Perkins, S. and White, G. (2010), 'Modernising pay in the UK public services: Trends and implications', *Human Resource Management Journal*, Vol. 20, No. 3, pp. 244–57.

Ponzellini, A.M., Aumayr, C. and Wolf, F. (2010), *Addressing the gender pay gap: Government and social partner initiatives*, Eurofound, Dublin.

Riedmann, A., Van Gyes, G., Román, A., Kerkhofs, M. and Bechmann, S., Eurofound (2010), *European Company Survey 2009 – overview*, Publications Office of the European Union, Luxembourg.

Traxler, F., Nergaard, K., Arrowsmith, J. and Molins López-Rodó, J. (2008), 'Variable pay and collective bargaining: A cross-national comparison of the banking sector', *Economic and Industrial Democracy*; 29; 406.

Visser, J. (ed) (2008), *2008 Industrial relations in Europe report*, European Commission, Brussels.

Welz, C. and Fernandez-Macías, E. (2007), *Financial participation of employees in the European Union: Much ado about nothing?*, Eurofound, Dublin.

# Annex 1: Construction of variables

**Table A1: Questions taken from the ECS**

| Term | Code | Question | Answer categories |
|---|---|---|---|
| | | **Dependent variables** | |
| **PRP** | **MM454** | Do any of your employees – except for those in top management – receive specific elements of pay that depend on the performance of the individual, a working group or the department? These elements can be either cash or in the form of shares of the company. | Yes/no/don't know/no answer |
| **Individual PRP/ broad-based IPRP** | **MM455** | Approximately what proportion of your workforce receives specific elements of pay that depend on the performance of the individual? | None/less than 10%/ between 10% and less than 25%/between 25% and less than 50%/ more than 50%/all/no answer |
| **Group-based PRP/ broad-based IPRP** | **MM456** | Approximately what proportion of your workforce receives specific elements of pay that depend on the performance of the team, working group or department? | None/less than 10%/ between 10% and less than 25%/between 25% and less than 50%/ more than 50%/all/no answer |
| | | **Establishment-related factors** | |
| **Headquarters** | **MM101** | Is it a headquarters, or is it a subsidiary site? | Headquarters/subsidiary site/no answer |
| **foreign ownership** | **MM106** | Is this establishment predominantly or exclusively … | In domestic ownership/in foreign ownership |
| **female workforce** | **MM550** | About what proportion of your employees is female? | % Categories |
| **economic condition** | **MM103** | Has the total number of employees in your establishment increased, decreased or stayed about the same over the past three years? | |
| | **MM500** | How would you rate the economic situation of this establishment? Is it very good, quite good, neither good nor bad, quite bad or very bad? | Very good/quite good/ neither good nor bad/ quite bad/very bad/don't know/no answer |
| | **mM501** | Compared with other establishments in the same sector of activity, how would you assess the labour productivity in your establishment? Is it a lot better, somewhat better, about average or below average for this sector? | A lot better/somewhat better/about average for industry/below average/ don't know-comparison not possible/no answer |
| | **mM502** | And if you compare your establishment's current labour productivity to the situation three years ago: has it increased considerably, has it slightly increased, has it remained about the same or has it decreased since then? | Increased considerably/ increased slightly/ remained about the same/decreased/don't know-comparison not possible/no answer |
| **human resources and flexibility practices** | | | |
| | | **External and numerical flexibility** | |
| **Restructuring** | **MM150** | Has your establishment been involved in any of the following changes in the last three years?<br>The acquisition of another organisation<br>A takeover by another organisation<br>A merger<br>A relocation<br>A demerger | Yes/no/no answer |
| **part-time** | **MM250** | Approximately what proportion of your employees work part time? | % Categories |
| **temporary agency workers/fixed-term employees** | **MM400** | Have there been any of the following groups working in your establishment in the last 12 months?<br>Temporary agency workers<br>staff with fixed term contracts | Yes/no/no answer |
| **temporary agency workers** | **MM401** | About how many temporary agency workers are currently working in this establishment? | Numeric categories |
| **fixed-term** | **MM402** | About what proportion of your employees is holding a fixed-term contract? | % Categories |

| Term | Code | Question | Answer categories |
|---|---|---|---|
| | | **Internal flexibility** | |
| **Foreseeing the workload** | **MM159** | Are these variations of the workload within a day or within a normal working week mostly foreseeable? | Mostly foreseeable/ mostly not foreseeable/ both of equal importance/no answer |
| **working time flexibility** | **MM300** | Does your establishment offer employees the possibility to adapt – within certain limits – the time when they begin or finish their daily work according to their personal needs or wishes? | Yes/no/no answer |
| | **mM303** | Does this system of flexible working hours allow employees to accumulate hours, i.e. is it possible to work longer hours on some days and to compensate this later by working less on other days? | Yes/no/no answer |
| **overtime** | **MM350** | Roughly, what proportion of your employees has worked any overtime in the past 12 months? | % Categories |
| | **mM351** | How is overtime compensated: is it paid for as a general rule, is it compensated with time off, are both alternatives offered or are overtime hours usually not at all compensated? | Paid for/compensated with time off/ both/payment or compensation with time off/not at all compensated/no answer |
| **teamwork** | **MM558** | Is work in teams an important characteristic of the work organisation in your establishment? | Yes/no/no answer |
| | **mM559** | If you think about the tasks to be performed by the teams: do the team members decide among themselves how and by whom the tasks are to be performed or is there usually a superior distributing the tasks within the team? | Team members decide among themselves/ tasks are distributed by a supervisor/no answer |
| | | **Functional flexibility** | |
| **Training** | **MM563** | Have any of your employees been given time off from their normal duties in the past 12 months in order to undergo further training? | Yes/no/no answer |
| **highly skilled workforce** | **MM553** | Approximately what proportion of your employees work in high-skilled jobs, i.e. jobs which usually require an academic degree or a comparable qualification? | % Categories |
| **industrial relations structures** | | | |
| | | **Collective bargaining** | |
| **Wage agreement** | **MM450** | What proportion of your employees is covered by a collective wage agreement – be it on the level of the establishment or on any higher level? | % Categories |
| **sectoral collective bargaining coverage** | **MM451** | Is this collective agreement negotiated at the establishment or company level or at a higher level than the company? | Establishment or company level/higher level than company/both types of agreements apply/no answer |
| **derogation** | **MM452** | Is it possible to derogate from this higher-level collective agreement under certain circumstances in order to pay wages below the collectively agreed level? | Yes/no/no answer |
| | | **Representation and voice** | |
| **Type of employee representation** | **MM650** | Which of the following forms of formal employee representation currently exists in your establishment? Do you have …? | Different types according to country |
| **trade union density** | **ER107** | Roughly how many employees at this establishment are members of a trade union? | Five categories |
| **social dialogue at establishment level** | | | |
| | | **Climate and influence** | |
| **Climate according to employee representative** | **ER151** | To what extent do you agree with the following statements when you look to the industrial relations climate of your establishment? The relationship between management and employee representation can best be defined as hostile. Management and employee representation make sincere efforts to solve common problems. | Strongly agree/agree/ neither agree nor disagree/disagree/ strongly disagree/no answer |

| Term | Code | Question | Answer categories |
|---|---|---|---|
| **influence of employee representation in general** | **ER207** | How large is the influence of the employee representative on management decisions in this establishment?<br>(list of areas for decisions)<br>Employment and human resources planning<br>Equal opportunities policies and diversity management<br>Changes in working time regulations<br>The determination of pay<br>Health and safety matters<br>Changes in the organisation of work processes and workflow<br>The impact of structural changes such as restructurings, relocation or takeovers<br>Career management (selection, appraisal, training)<br>Disciplinary or hierarchical problems | Very strong/quite strong/ quite weak/very weak |
| **excellent provision of information** | **ER200** | Please tell me for each of the following issues whether the employer provides the employee representation with relevant data on it … | At least once a month/ several times a year/once a year/less than once a year/never |
| | **eR202** | If you think about the business information you get from the employer: does it frequently, sometimes or practically never happen that this information is classified as confidential so that you can not disseminate it to the workforce? | Frequently/sometimes/ practically never/no answer |
| | **eR203** | Do you usually receive the information timely and unrequested? | Yes/no/no answer |
| | **eR204** | Is the disclosed business information normally sufficiently detailed? | Yes/no/no answer |
| | | **Pay-related social dialogue** | |
| **Industrial action** | **ER260** | In the last 12 months, have there been one or more instances of industrial action in your establishment? | Yes, one/yes, more than one/no none/ no answer |
| | **eR262b** | Which issues were concerned by these actions?<br>….<br>Matters related to pay | Yes/no/don't know |
| | **eR263a** | Was this industrial action part of a broader campaign on the national, regional or sectoral level or was it confined to your enterprise? | Part of a broader campaign/confined to the enterprise/no answer |
| **employee representation attitude towards PRP** | **ER353a** | Is the employee representation generally supporting the performance-related pay elements practised in the establishment, is it neutral about them or is it opposing this practice? | Supporting/neutral/ opposing |
| | **eR353b** | Would the employee representation generally support the introduction of performance-related pay elements in this establishment, would it have a neutral position about that or would it be opposing such a practice? | Supporting/neutral/ opposing |
| **involvement of employee representation in changes of remuneration system** | **MM700** | Please tell me for each of the measures you introduced whether or not you have consulted the affected employees before deciding on the issue …<br>…<br>Major changes of the remuneration system | Yes/no/no answer |
| **management attitude towards employee representation** | **MM702** | The employee representation helps us in a constructive manner to find ways to improve workplace performance | Strongly agree/agree/ neither agree nor disagree/disagree/ strongly disagree/no answer |

## Table A2: Construction of the variables

<table>
<tr><th>Variable</th><th>Construction</th></tr>
<tr><td>Financial condition</td><td>This is a dummy variable (coded 0/1), composed of four different subcriteria, and takes on the value 1 if three or four of the following subcriteria apply: (as assessed by management)<br>1. financial situation is quite or very good;<br>2. perceived labour productivity a lot or somewhat better as compared to other establishments in the same sector of activity;<br>3. increase in labour productivity considerably or slightly during the past three years;<br>4. increase in employment during the past three years.</td></tr>
<tr><td>Overtime</td><td>The ECS does not have a measure for the extent of overtime at establishment level, but asks for compensation practices with regard to overtime. This has been merged with the question on the existence of overtime. In a considerable number of establishments, the question could not be answered at all. In the course of this work, we define ‘overtime’ as a categorical variable, based on MM351. It is coded 1 if it is either paid for, compensated for with time off or both. It takes on the value 2 if not at all compensated, is 3 if no information on compensation practices is available and 4 when it has been reported that no overtime has been worked by any of the employees during the past 12 months.</td></tr>
<tr><td>Working time flexibility</td><td>The variable ‘working time flexibility’ has been constructed based on MM300 and MM303 and distinguishes between establishments with working time flexibility, where accumulation is possible, those with flexible working hours, where accumulation is not possible, and those where no working time flexibility is in evidence.</td></tr>
<tr><td>Temporary agency workers</td><td>Existence of an ‘important share of temporary agency workers’ is a dummy variable and takes on the value 1 when the upper bound of the temporary agent category (asked for in the survey) is around 10% of the upper bound of the establishment size (or more).</td></tr>
<tr><td>Fixed-term employees</td><td>An establishment has been assigned the dummy variable ‘having a considerable proportion of fixed-term employees’ when the proportion of fixed-term employees has been reported to be greater than 20%. The following table summarises the distribution of categories within the dummy variable.</td></tr>
<tr><td>Female workforce</td><td>As the proportion of women within establishments is highly sector-specific, the variable ‘female workforce’ has been constructed in relation to the sectoral median value of female employment. Female workforce is a categorical variable and constructed as deviation from the mean category by sector: female employment in an establishment is ‘lower than median’ when the establishment is below the median category, ‘high’ when it is above the median and ‘median’ when it falls in the same category as the sector median.</td></tr>
<tr><td>Highly skilled workforce</td><td>Also the question of whether an establishment has a high proportion of highly skilled workers is rather sector-specific. For this reason, we pursued a similar strategy in the construction of the variable as above. An establishment is considered to have a lower- or higher-than-median proportion of highly skilled employees when it falls in a lower/higher category than the median by sector.</td></tr>
<tr><td rowspan="6">Level of collective wage agreement – form of collective bargaining</td><td colspan="2">Merged the questions MM450XN (answer: ‘Nobody’) and MM451 (all other answers).</td></tr>
<tr><td>Level of agreement</td><td>Form of collective bargaining</td></tr>
<tr><td>Establishment or company level</td><td>Single-employer bargaining</td></tr>
<tr><td>Higher level than company</td><td>Multi-employer bargaining</td></tr>
<tr><td>Both types of agreement apply</td><td>Multi-employer bargaining</td></tr>
<tr><td>Don’t know</td><td>Don’t know</td></tr>
<tr><td>No agreement</td><td>No agreement</td></tr>
<tr><td>Form of employee representation</td><td>This variable has been constructed based on MM650: where ‘Yes’ means that at least one type of the respective possible national bodies of works council (WC) or trade union (TU) exists.<br><br>
<table>
<tr><th>TU</th><th>WC</th><th>Form of representation</th></tr>
<tr><td>Yes</td><td>Yes</td><td>Dual channel</td></tr>
<tr><td>No</td><td>Yes</td><td>Single channel</td></tr>
<tr><td>Yes</td><td>No</td><td>Single channel</td></tr>
<tr><td>No</td><td>No</td><td>No representation</td></tr>
<tr><td>DK/NA</td><td>Yes</td><td>Single channel</td></tr>
<tr><td>Yes</td><td>DK/NA</td><td>Single channel</td></tr>
<tr><td>DK/NA</td><td>No</td><td>No representation</td></tr>
<tr><td>No</td><td>DK/NA</td><td>No representation</td></tr>
<tr><td>DK/NA</td><td>DK/NA</td><td>No representation</td></tr>
</table>
</td></tr>
</table>

| Variable | Construction | |
|---|---|---|
| Trade union density | **Categories for trade union density at establishment level** | |
| | None | Low |
| | Less than 20% | Low |
| | From 20% to less than 40% | Medium |
| | From 40% to less than 60% | Medium |
| | From 60% to less than 80% | Medium |
| | From 80% to less than 100% | High |
| | All | High |
| | Don't know | No information |
| Sectoral collective bargaining coverage | The variable sectoral collective bargaining coverage is based on the variable MM450XN (collective bargaining coverage within establishment). The variable was taken employee weighted-wise, and then broken down by countries and sectors. For each country/sector pair, an 'average' value for the sectoral collective bargaining coverage has then been calculated, using the median of each initial answer category (that is, '10' in the case of the category 0 to 20) as weights. Each establishment has then been assigned the sector-specific average rate of collective bargaining within their country. The breakdown into three categories is as follows: low being 0%–40%; medium being 40%–80%; and high being 80%–100%. | |

# Annex 2: Empirical results

**Table A3: Results of the principal component analysis – rotated component matrix**

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| Dummy female share above sectoral median | -.095 | .109 | -.075 | .014 | -.002 | -.053 | .705 | -.049 | -.110 |
| Dummy high-qualified share above sectoral median | -.329 | .072 | -.026 | -.106 | -.223 | .512 | .305 | .082 | .050 |
| Dummy for 'significant' fraction of temporary agents | -.199 | .040 | -.022 | -.048 | .450 | -.261 | -.001 | -.251 | .067 |
| Dummy for fixed-term employees > 20% | -.006 | .024 | -.097 | .134 | .549 | .309 | .041 | .131 | -.128 |
| Dummy 'stress' (acquisition, merger, takeover, relocation or demerger) | .074 | -.011 | -.045 | .125 | -.582 | .108 | .042 | -.018 | -.137 |
| Teamwork and autonomy | .079 | .305 | .205 | -.170 | -.018 | .021 | .227 | -.124 | .449 |
| Proportion of part-timers high: more than 20% | .346 | .116 | .227 | .286 | .429 | .073 | .309 | .074 | -.015 |
| Time off for training | .068 | -.051 | .025 | -.083 | .108 | .700 | -.122 | -.043 | .007 |
| Workload variation not forseeable | .097 | -.061 | -.052 | .055 | .103 | .013 | -.123 | .038 | .630 |
| Overtime not compensated for | .084 | -.132 | .058 | .034 | .029 | -.033 | .543 | -.011 | .026 |
| Working time flexibility with accumulation of hours | .292 | .118 | .096 | .145 | -.218 | .452 | -.124 | -.080 | .034 |
| Sectoral collective bargaining coverage high | .627 | -.024 | .205 | -.036 | -.173 | .116 | .025 | .157 | .190 |
| Single-employer agreement | .111 | .023 | -.863 | -.074 | .012 | -.041 | -.005 | -.025 | -.087 |
| No agreement | -.735 | .007 | .355 | .251 | .041 | .000 | -.005 | .004 | .033 |
| High trade union density | -.294 | -.111 | .028 | .648 | .019 | .017 | .015 | .111 | -.066 |
| Single-channel representation | .063 | .065 | -.006 | .726 | -.050 | -.060 | .034 | -.211 | .069 |
| Derogation possible | .242 | -.040 | .490 | -.134 | .036 | .009 | -.007 | -.112 | -.393 |
| Employee representation opposes PRP | .124 | .008 | .096 | .000 | .046 | .068 | -.091 | .567 | .303 |
| No involvement on recent changes of the remuneration system | -.007 | -.254 | -.004 | .080 | .250 | .230 | .065 | -.391 | .086 |
| Employee representation influence low | -.166 | -.571 | -.024 | -.064 | -.045 | .002 | .234 | .012 | .261 |
| Information on financial situation of establishment is "excellent" | -.177 | .537 | -.076 | -.147 | .099 | .037 | .028 | .076 | -.062 |
| Industrial action with regard to pay confined to the establishment during past 12 months | -.021 | -.156 | -.092 | -.066 | .051 | -.024 | .032 | .633 | -.107 |
| 'Excellent' climate of industrial relations, according to employee representative | .067 | .606 | -.023 | .156 | -.042 | -.009 | .107 | -.030 | .096 |
| Employee representation helps in constructive matter to improve performance | -.033 | .373 | .039 | -.084 | -.010 | .004 | -.056 | -.171 | .201 |

*Note:* Extraction method: Principal Component Analysis; Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 35 iterations.

## Table A4: Pearson's correlation matrix for variables used in PCA

| | Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Dummy female share above sectoral median | 1.00 | 0.07 | 0.04 | 0.01 | 0.01 | 0.04 | 0.10 | -0.05 | -0.05 | 0.06 | -0.05 | -0.08 | 0.01 | 0.07 | 0.03 | 0.02 | -0.02 | -0.07 | 0.02 | 0.02 | 0.03 | -0.01 | 0.04 | 0.02 |
| 2 | Dummy high-qualified share above sectoral median | 0.07 | 1.00 | -0.04 | 0.01 | 0.03 | 0.03 | -0.06 | 0.08 | -0.03 | 0.03 | 0.04 | -0.01 | -0.02 | 0.06 | 0.04 | -0.01 | -0.01 | 0.01 | 0.00 | 0.04 | 0.03 | 0.01 | 0.02 | 0.02 |
| 3 | Dummy for 'significant' fraction of temporary agents | 0.04 | -0.04 | 1.00 | 0.05 | -0.13 | 0.02 | 0.01 | -0.07 | -0.01 | 0.01 | -0.11 | -0.16 | 0.01 | 0.07 | 0.02 | 0.06 | -0.01 | -0.06 | 0.03 | 0.01 | 0.03 | -0.02 | 0.01 | 0.02 |
| 4 | Dummy for fixed-term employees > 20% | 0.01 | 0.01 | 0.05 | 1.00 | -0.05 | -0.01 | 0.11 | 0.04 | 0.03 | 0.02 | -0.01 | -0.04 | 0.01 | 0.05 | 0.03 | 0.02 | 0.00 | 0.01 | 0.03 | 0.01 | 0.01 | 0.01 | 0.00 | -0.02 |
| 5 | Dummy 'stress' (acquisition, merger, takeover, relocation or demerger) | 0.01 | 0.03 | -0.13 | -0.05 | 1.00 | 0.00 | -0.08 | 0.01 | -0.01 | -0.02 | 0.07 | 0.04 | 0.02 | -0.03 | -0.01 | 0.03 | 0.05 | 0.00 | -0.02 | -0.01 | -0.01 | 0.00 | 0.00 | -0.03 |
| 6 | Dummy teamwork and autonomy | 0.04 | 0.03 | 0.02 | -0.01 | 0.00 | 1.00 | 0.07 | 0.02 | 0.06 | 0.02 | 0.06 | 0.07 | -0.07 | -0.02 | -0.09 | 0.02 | 0.02 | 0.03 | -0.01 | -0.05 | 0.06 | -0.06 | 0.10 | 0.07 |
| 7 | Proportion of part-timers high: more than 20% | 0.10 | -0.06 | 0.01 | 0.11 | -0.08 | 0.07 | 1.00 | 0.05 | 0.02 | 0.06 | 0.05 | 0.09 | -0.13 | -0.04 | 0.06 | 0.08 | 0.05 | 0.04 | 0.07 | -0.04 | 0.01 | -0.04 | 0.06 | 0.02 |
| 8 | Time off for training | -0.05 | 0.08 | -0.07 | 0.04 | 0.01 | 0.02 | 0.05 | 1.00 | 0.03 | 0.00 | 0.13 | 0.07 | -0.03 | -0.05 | -0.02 | -0.03 | 0.04 | 0.05 | 0.03 | 0.00 | -0.02 | 0.01 | -0.01 | 0.00 |
| 9 | Workload variation not forseeable | -0.05 | -0.03 | -0.01 | 0.03 | -0.01 | 0.06 | 0.02 | 0.03 | 1.00 | 0.00 | 0.01 | 0.06 | -0.01 | -0.04 | -0.01 | 0.00 | -0.01 | 0.05 | 0.01 | 0.02 | 0.00 | 0.01 | 0.02 | 0.00 |
| 10 | Overtime not compensated for | 0.06 | 0.03 | 0.01 | 0.02 | -0.02 | 0.02 | 0.06 | 0.00 | 0.00 | 1.00 | -0.02 | 0.01 | -0.03 | 0.02 | 0.02 | 0.03 | 0.02 | -0.02 | 0.01 | 0.04 | -0.02 | -0.01 | 0.00 | -0.03 |
| 11 | Working time flexibility with accumulation of hours | -0.05 | 0.04 | -0.11 | -0.01 | 0.07 | 0.06 | 0.05 | 0.13 | 0.01 | -0.02 | 1.00 | 0.17 | -0.07 | -0.09 | -0.05 | 0.05 | 0.03 | 0.03 | -0.01 | -0.07 | -0.03 | -0.03 | 0.05 | 0.01 |
| 12 | Sectoral collective bargaining coverage high | -0.08 | -0.01 | -0.16 | -0.04 | 0.04 | 0.07 | 0.09 | 0.07 | 0.06 | 0.01 | 0.17 | 1.00 | -0.16 | -0.33 | -0.12 | -0.02 | 0.03 | 0.11 | -0.01 | -0.03 | -0.04 | 0.02 | 0.02 | 0.01 |
| 13 | Single employer agreement | 0.01 | -0.02 | 0.01 | 0.01 | 0.02 | -0.07 | -0.13 | -0.03 | -0.01 | -0.03 | -0.07 | -0.16 | 1.00 | -0.29 | -0.05 | -0.05 | -0.15 | -0.02 | -0.03 | -0.01 | 0.04 | 0.05 | 0.00 | -0.01 |
| 14 | No agreement | 0.07 | 0.06 | 0.07 | 0.05 | -0.03 | -0.02 | -0.04 | -0.05 | -0.04 | 0.02 | -0.09 | -0.33 | -0.29 | 1.00 | 0.23 | 0.09 | -0.10 | -0.06 | 0.06 | 0.05 | 0.03 | -0.03 | -0.01 | -0.02 |
| 15 | High trade union density | 0.03 | 0.04 | 0.02 | 0.03 | -0.01 | -0.09 | 0.06 | -0.02 | -0.01 | 0.02 | -0.05 | -0.12 | -0.05 | 0.23 | 1.00 | 0.20 | -0.02 | -0.03 | 0.04 | 0.06 | -0.03 | 0.01 | -0.04 | -0.02 |
| 16 | Single-channel representation | 0.02 | -0.01 | 0.06 | 0.02 | 0.03 | 0.02 | 0.08 | -0.03 | 0.00 | 0.03 | 0.05 | -0.02 | -0.05 | 0.09 | 0.20 | 1.00 | 0.00 | -0.05 | 0.04 | -0.02 | -0.04 | -0.08 | 0.09 | 0.00 |

| | Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | Derogation possible | -0.02 | -0.01 | -0.01 | 0.00 | 0.05 | 0.02 | 0.05 | 0.04 | -0.01 | 0.02 | 0.03 | 0.03 | -0.15 | -0.10 | -0.02 | 0.00 | 1.00 | 0.00 | 0.00 | -0.03 | -0.03 | -0.01 | 0.00 | -0.01 |
| 18 | Employee representation opposes PRP | -0.07 | 0.01 | -0.06 | 0.01 | 0.00 | 0.03 | 0.04 | 0.05 | 0.05 | -0.02 | 0.03 | 0.11 | -0.02 | -0.06 | -0.03 | -0.05 | 0.00 | 1.00 | -0.02 | 0.01 | -0.03 | 0.07 | -0.01 | 0.00 |
| 19 | No involvement on recent changes of the remuneration system | 0.02 | 0.00 | 0.03 | 0.03 | -0.02 | -0.01 | 0.07 | 0.03 | 0.01 | 0.01 | -0.01 | -0.01 | -0.03 | 0.06 | 0.04 | 0.04 | 0.00 | -0.02 | 1.00 | 0.04 | -0.01 | -0.02 | -0.03 | -0.02 |
| 20 | Employee representation influence low | 0.02 | 0.04 | 0.01 | 0.01 | -0.01 | -0.05 | -0.04 | 0.00 | 0.02 | 0.04 | -0.07 | -0.03 | -0.01 | 0.05 | 0.06 | -0.02 | -0.03 | 0.01 | 0.04 | 1.00 | -0.10 | 0.05 | -0.13 | -0.08 |
| 21 | Information on financial situation is timely, unrequested, un-confidential (employee representative may make information available to workforce) and sufficient | 0.03 | 0.03 | 0.03 | 0.01 | -0.01 | 0.06 | 0.01 | -0.02 | 0.00 | -0.02 | -0.03 | -0.04 | 0.04 | 0.03 | -0.03 | -0.04 | -0.03 | -0.03 | -0.01 | -0.10 | 1.00 | -0.04 | 0.13 | 0.04 |
| 22 | Industrial action with regard to pay confined to the establishment during past 12 months | -0.01 | 0.01 | -0.02 | 0.01 | 0.00 | -0.06 | -0.04 | 0.01 | 0.01 | -0.01 | -0.03 | 0.02 | 0.05 | -0.03 | 0.01 | -0.08 | -0.01 | 0.07 | -0.02 | 0.05 | -0.04 | 1.00 | -0.07 | -0.07 |
| 23 | 'Excellent' climate of industrial relations according to employee representative | 0.04 | 0.02 | 0.01 | 0.00 | 0.00 | 0.10 | 0.06 | -0.01 | 0.02 | 0.00 | 0.05 | 0.02 | 0.00 | -0.01 | -0.04 | 0.09 | 0.00 | -0.01 | -0.03 | -0.13 | 0.13 | -0.07 | 1.00 | 0.10 |
| 24 | Employee representative helps in constructive matter to improve performance | 0.02 | 0.02 | 0.02 | -0.02 | -0.03 | 0.07 | 0.02 | 0.00 | 0.00 | -0.03 | 0.01 | 0.01 | -0.01 | -0.02 | -0.02 | 0.00 | -0.01 | 0.00 | -0.02 | -0.08 | 0.04 | -0.07 | 0.10 | 1.00 |

## Table A5: Results for the logit models on PRP, including country dummies (model 5 and model 6)

| | M5: Individual PRP | | M6: Group-based PRP | |
|---|---|---|---|---|
| | Sig. | Odds ratio | Sig. | Odds ratio |
| Production activities (reference) | .000 | | .000 | |
| Construction | .725 | 1.047 | .110 | 1.247 |
| Commerce | .000 | 1.555 | .001 | 1.446 |
| Hotels and restaurants | .071 | 1.474 | .089 | 1.469 |
| Transport, storage, communication | .738 | .952 | .017 | .678 |
| Financial intermediation | .000 | 3.065 | .003 | 1.750 |
| Real estate, renting and business activities | .106 | 1.217 | .982 | 1.003 |
| Public administration | .093 | .829 | .000 | .486 |
| Education | .534 | .927 | .000 | .355 |
| Social work | .000 | .527 | .000 | .354 |
| Other community services | .011 | .692 | .000 | .501 |
| 250 plus (ref.) | .003 | | .000 | |
| 10 to 19 | .056 | .805 | .000 | .538 |
| 20 to 49 | .003 | .761 | .000 | .543 |
| 50 to 249 | .001 | .781 | .000 | .741 |
| Foreign ownership | .000 | 1.845 | .000 | 1.766 |
| Headquarters | .523 | 1.050 | .259 | 1.097 |
| Perceived financial situation | .006 | 1.190 | .003 | 1.229 |
| Female workforce in sectoral median category (ref.) | .010 | | .695 | |
| Female workforce below sectoral median category | .003 | .810 | .899 | .990 |
| Female workforce above sectoral median category | .430 | .943 | .491 | 1.058 |
| Temporary agency workers 'significant' compared with size class | .095 | .892 | .808 | .982 |
| Fixed-term employees > 20% | .070 | .847 | .831 | 1.022 |
| High proportion of part-time employees | .387 | .932 | .745 | .970 |
| Restructuring | .000 | 1.347 | .000 | 1.380 |
| No overtime worked | .001 | | .002 | |
| Overtime compensated for with money or time off | .000 | 1.339 | .003 | 1.322 |
| Overtime not compensated for | .813 | .943 | .658 | 1.145 |
| No information on overtime | .471 | .820 | .100 | .562 |
| No working time flexibility | .000 | | .003 | |
| Working time flexibility with accumulation of hours | .000 | 1.464 | .002 | 1.274 |
| Working time flexibility without accumulation of hours | .007 | 1.272 | .896 | 1.013 |
| Foreseeability of the workload | .865 | 1.013 | .826 | 1.019 |
| No teamwork (ref.) | .355 | | .000 | |
| Teamwork with supervision | .982 | .998 | .000 | .663 |
| Teamwork with autonomy | .159 | 1.110 | .008 | 1.240 |
| Time off granted for training | .000 | 1.455 | .000 | 1.331 |
| Highly qualified workforce in sectoral median category (ref.) | .017 | | .483 | |
| Highly qualified workforce below sectoral median category | .327 | .924 | .520 | .942 |
| Highly qualified workforce above sectoral median category | .044 | 1.147 | .492 | 1.052 |
| Low CBC at sectoral level (ref.) | .267 | | .185 | |
| High CBC at sectoral level | .121 | 1.318 | .877 | 1.032 |
| Medium CBC at sectoral level | .317 | 1.150 | .241 | 1.205 |

| | M5: Individual PRP | | M6: Group-based PRP | |
|---|---|---|---|---|
| | Sig. | Odds ratio | Sig. | Odds ratio |
| No agreement (ref.) | .143 | | .439 | |
| Single-employer bargaining | .049 | 1.210 | .248 | 1.135 |
| Multi-employer bargaining | .141 | 1.156 | .630 | 1.056 |
| Derogation from collective agreement possible | .197 | .837 | .017 | .703 |
| Dual-channel representation | .784 | 1.022 | .793 | .976 |
| High trade union density (ref.) | .118 | | .023 | |
| Low trade union density | .095 | 1.177 | .006 | 1.351 |
| Medium trade union density | .043 | 1.180 | .104 | 1.161 |
| 'Excellent' climate of industrial relations | .719 | 1.027 | .513 | 1.054 |
| Management attitude towards employee representation supporting performance | .036 | 1.153 | .175 | 1.107 |
| Employee representation influence perceived as 'low' by employee representative (ref.) | .682 | | .149 | |
| Employee representation influence perceived as 'high' by employee representative | .433 | .920 | .075 | .808 |
| Employee representation influence perceived as 'medium' by employee representative | .461 | .950 | .812 | .982 |
| Information on financial situation of establishment is 'excellent' | .040 | 1.171 | .111 | 1.144 |
| Industrial action related to pay | .452 | 1.105 | .333 | 1.148 |
| No info on employee representation involvement available (ref.) | .000 | | .000 | |
| Employee representation had been involved | .000 | 1.372 | .000 | 1.474 |
| Employee representation had not been involved | .141 | 1.196 | .243 | 1.176 |
| No information on employee representation attitude towards PRP or neutrality (ref.) | .022 | | .124 | |
| Employee representation supportive of PRP | .067 | 1.128 | .080 | 1.135 |
| Employee representation opposed to PRP | .266 | .914 | .826 | .980 |

*Note:* CBC = collective bargaining coverage; sample where interviews with employee representative exist. Inclusion of country dummies (not displayed here for reasons of space).

## Table A6: Results for the logit models on PRP across all establishments

| | M7: Individual PRP | | M8: Group-based PRP | |
|---|---|---|---|---|
| | Sig. | Exp(B) | Sig. | Exp(B) |
| Production activities (reference) | 0.00 | | 0.00 | |
| Construction | 0.08 | 0.91 | 0.38 | 0.95 |
| Commerce | 0.00 | 1.54 | 0.00 | 1.48 |
| Hotels and restaurants | 0.12 | 1.14 | 0.12 | 1.15 |
| Transport, storage, communication | 0.46 | 0.95 | 0.06 | 0.86 |
| Financial intermediation | 0.00 | 2.10 | 0.00 | 1.72 |
| Real estate, renting and business activities | 0.00 | 1.28 | 0.00 | 1.18 |
| Public administration | 0.00 | 0.79 | 0.00 | 0.50 |
| Education | 0.68 | 0.97 | 0.00 | 0.49 |
| Social work | 0.00 | 0.66 | 0.00 | 0.44 |
| Other community services | 0.20 | 0.91 | 0.00 | 0.67 |
| 250 plus (ref.) | 0.00 | | 0.00 | |

| | M7: Individual PRP | | M8: Group-based PRP | |
|---|---|---|---|---|
| | Sig. | Exp(B) | Sig. | Exp(B) |
| 10 to 19 | 0.00 | 0.61 | 0.00 | 0.55 |
| 20 to 49 | 0.00 | 0.68 | 0.00 | 0.57 |
| 50 to 249 | 0.00 | 0.78 | 0.00 | 0.76 |
| Foreign ownership | 0.00 | 1.52 | 0.00 | 1.57 |
| Headquarters | 0.00 | 1.19 | 0.00 | 1.25 |
| Perceived financial situation | 0.00 | 1.22 | 0.00 | 1.28 |
| Female workforce in sectoral median category (ref.) | 0.00 | | 0.09 | |
| Female workforce below sectoral median category | 0.00 | 0.85 | 0.03 | 0.91 |
| Female workforce above sectoral median category | 0.55 | 0.98 | 0.55 | 0.98 |
| Temporary agency workers 'significant' compared with size class | 0.88 | 0.99 | 0.63 | 1.02 |
| Fixed-term employees > 20% | 0.23 | 1.05 | 0.05 | 1.10 |
| High proportion of part-time employees | 0.00 | 0.78 | 0.00 | 0.86 |
| Restructuring | 0.00 | 1.31 | 0.00 | 1.35 |
| No overtime worked | 0.00 | | 0.00 | |
| Overtime compensated for with money or time off | 0.00 | 1.49 | 0.00 | 1.47 |
| Overtime not compensated for | 0.00 | 1.39 | 0.00 | 1.51 |
| No information on overtime | 0.00 | 0.63 | 0.00 | 0.58 |
| No working time flexibility | 0.00 | | 0.00 | |
| Working time flexibility with accumulation of hours | 0.00 | 1.57 | 0.00 | 1.51 |
| Working time flexibility without accumulation of hours | 0.00 | 1.29 | 0.00 | 1.25 |
| Foreseeability of the workload | 0.78 | 1.01 | 0.91 | 1.00 |
| No teamwork (ref.) | 0.13 | | 0.00 | |
| Teamwork with supervision | 0.54 | 1.02 | 0.00 | 0.62 |
| Teamwork with autonomy | 0.08 | 0.94 | 0.06 | 1.08 |
| Time off granted for training | 0.00 | 1.51 | 0.00 | 1.44 |
| Highly qualified workforce in sectoral median category (ref.) | 0.00 | | 0.00 | |
| Highly qualified workforce below sectoral median category | 0.00 | 0.83 | 0.00 | 0.81 |
| Highly qualified workforce above sectoral median category | 0.06 | 1.07 | 0.05 | 1.08 |
| Low CBC at sectoral level (ref.) | 0.85 | | 0.00 | |
| High CBC at sectoral level | 0.64 | 1.02 | 0.26 | 0.94 |
| Medium CBC at sectoral level | 0.92 | 1.00 | 0.00 | 0.83 |
| No agreement (ref.) | 0.05 | | 0.18 | |
| Single-employer bargaining | 0.05 | 1.08 | 0.38 | 1.04 |
| Multi-employer bargaining | 0.88 | 0.99 | 0.42 | 0.96 |
| Derogation from collective agreement possible | 0.82 | 0.98 | 0.51 | 0.94 |
| No employee representation | 0.08 | | 0.00 | |
| Single-channel employee representation | 0.04 | 1.08 | 0.05 | 1.08 |
| Dual-channel employee representation | 0.08 | 1.08 | 0.00 | 1.29 |
| Constant | 0.00 | 0.31 | 0.00 | 0.21 |

*Note:* CBC = collective bargaining coverage; sample: all establishments, EU27.

## Table A7: Results for the logit models on broad-based PRP

| | M9: IPRP | | M10: GPRP | |
|---|---|---|---|---|
| | Sig. | Exp(B) | Sig. | Exp(B) |
| Dependent variable | Broad-based individual PRP | | Broad-based group-based PRP | |
| Production activities (reference) | 0.00 | | 0.00 | |
| Construction | 0.47 | 0.89 | 0.78 | 0.96 |
| Commerce | 0.00 | 1.39 | 0.02 | 1.33 |
| Hotels and restaurants | 0.88 | 1.04 | 0.76 | 1.08 |
| Transport, storage, communication | 0.93 | 0.99 | 0.23 | 0.80 |
| Financial intermediation | 0.00 | 3.51 | 0.02 | 1.61 |
| Real estate, renting and business activities | 0.31 | 1.15 | 0.99 | 1.00 |
| Public administration | 0.16 | 1.19 | 0.00 | 0.47 |
| Education | 0.08 | 1.26 | 0.00 | 0.33 |
| Social work | 0.05 | 0.75 | 0.00 | 0.39 |
| Other community services | 0.50 | 0.89 | 0.00 | 0.49 |
| 250 plus (ref.) | 0.02 | | 0.01 | |
| 10 to 19 | 0.03 | 1.31 | 0.82 | 1.03 |
| 20 to 49 | 0.97 | 1.00 | 0.00 | 0.70 |
| 50 to 249 | 0.21 | 0.90 | 0.10 | 0.86 |
| Foreign ownership | 0.00 | 1.40 | 0.00 | 1.60 |
| Headquarters | 0.10 | 0.87 | 0.92 | 0.99 |
| Perceived financial situation | 0.26 | 1.08 | 0.79 | 1.02 |
| Female workforce in sectoral median category (ref.) | 0.00 | | 0.19 | |
| Female workforce below sectoral median category | 0.00 | 0.75 | 0.16 | 0.88 |
| Female workforce above sectoral median category | 0.73 | 0.97 | 0.72 | 1.03 |
| Temporary agency workers 'significant' compared with size class | 0.71 | 1.03 | 0.62 | 1.04 |
| Fixed-term employees > 20% | 0.41 | 0.92 | 0.45 | 1.09 |
| High proportion of part-time employees | 0.01 | 0.79 | 0.00 | 0.69 |
| Restructuring | 0.96 | 1.00 | 0.00 | 1.28 |
| No overtime worked | 0.23 | | 0.13 | |
| Overtime compensated for with money or time off | 0.22 | 1.12 | 0.03 | 1.28 |
| Overtime not compensated for | 0.42 | 0.79 | 0.89 | 1.05 |
| No information on overtime | 0.36 | 0.74 | 0.86 | 0.94 |
| No working time flexibility | 0.00 | | 0.00 | |
| Working time flexibility with accumulation of hours | 0.00 | 1.41 | 0.00 | 1.38 |
| Working time flexibility without accumulation of hours | 0.70 | 1.04 | 0.71 | 1.05 |
| Foreseeability of the workload | 0.00 | 0.76 | 0.43 | 0.92 |
| No teamwork (ref.) | 0.77 | | 0.11 | |
| Teamwork with supervision | 0.50 | 1.07 | 0.07 | 0.81 |
| Teamwork with autonomy | 0.69 | 1.03 | 0.46 | 1.07 |
| Time off granted for training | 0.00 | 1.36 | 0.00 | 1.29 |
| Highly qualified workforce in sectoral median category (ref.) | 0.00 | | 0.32 | |
| Highly qualified workforce below sectoral median category | 0.08 | 0.85 | 0.32 | 0.89 |
| Highly qualified workforce above sectoral median category | 0.02 | 1.20 | 0.50 | 1.06 |
| Low CBC at sectoral level (ref.) | 0.33 | | 0.08 | |
| High CBC at sectoral level | 0.39 | 0.91 | 0.12 | 1.22 |
| Medium CBC at sectoral level | 0.87 | 1.02 | 0.91 | 1.01 |

| | M9: IPRP | | M10: GPRP | |
|---|---|---|---|---|
| | Sig. | Exp(B) | Sig. | Exp(B) |
| Dependent variable | Broad-based individual PRP | | Broad-based group-based PRP | |
| No agreement (ref.) | 0.18 | | 0.77 | |
| Single-employer bargaining | 0.07 | 1.21 | 0.47 | 1.09 |
| Multi-employer bargaining | 0.34 | 1.11 | 0.56 | 1.08 |
| Derogation from collective agreement possible | 0.27 | 1.20 | 0.80 | 0.96 |
| Dual-channel representation | 0.49 | 1.05 | 0.00 | 0.71 |
| High trade union density (ref.) | 0.00 | | 0.31 | |
| Low trade union density | 0.01 | 1.30 | 0.13 | 1.17 |
| Medium trade union density | 0.00 | 1.39 | 0.36 | 1.09 |
| 'Excellent' climate of industrial relations | 0.54 | 0.95 | 0.30 | 0.91 |
| Management attitude towards employee representation supporting performance | 0.85 | 0.99 | 0.01 | 1.25 |
| Employee representation influence perceived as 'low' by employee representative (ref.) | 0.19 | | 0.05 | |
| Employee representation influence perceived as 'high' by employee representative | 0.28 | 0.88 | 0.02 | 0.72 |
| Employee representation influence perceived as 'medium' by employee representative | 0.07 | 0.87 | 0.69 | 0.97 |
| Information on financial situation of establishment is 'excellent' | 0.03 | 1.20 | 0.16 | 1.15 |
| Industrial action related to pay | 0.02 | 1.37 | 0.37 | 0.86 |
| No info on employee representation involvement available (ref.) | 0.00 | | 0.00 | |
| Employee representation had been involved | 0.00 | 1.49 | 0.00 | 1.46 |
| Employee representation had not been involved | 0.05 | 1.31 | 0.27 | 1.20 |
| No information on employee representation attitude towards PRPS or neutrality (ref.) | 0.00 | | 0.00 | |
| Employee representation supportive of PRPS | 0.00 | 1.28 | 0.00 | 1.27 |
| Employee representation opposed to PRPS | 0.02 | 0.80 | 0.61 | 0.95 |
| Constant | 0.00 | 0.09 | 0.00 | 0.10 |

*Note:* CBC = collective bargaining coverage; sample: establishments in EU27 where interviews with employee representatives exist.

European Foundation for the Improvement of Living and Working Conditions

**Performance-related pay and employment relations in European companies**

Luxembourg: Publications Office of the European Union

2011 – V, 74 p. – 21 × 29.7 cm

doi:10.2806/30124
ISBN 978-92-897-1048-0

## SALES AND SUBSCRIPTIONS

Publications for sale produced by the Publications Office of the European Union are available from our sales agents throughout the world.

***How do I set about obtaining a publication?***

Once you have obtained the list of sales agents, contact the sales agent of your choice and place your order.

***How do I obtain the list of sales agents?***

- Go to the Publications Office website: http://www.publications.europa.eu/
- Or apply for a paper copy by fax (352) 2929 42758

EF/11/44/EN

4 5 TJ-31-11-270-EN-C

*This reports analyses data from Eurofound's European Company Survey of 2009 to examine the incidence of performance-related pay (PRP) in European establishments and what determines it, with a specific focus on the role of employment relations. Larger establishments, those in foreign ownership, in the financial intermediation and commerce sectors, and those located in some central and eastern European countries are more likely to have a PRP scheme based on the performance of individuals. Across Europe, PRP schemes are more likely to be in place in companies that have employee representation in place. And employee representatives are more supportive of PRP schemes when they are involved in the discussions on setting up of such schemes. The attitude of trade unions is an important factor in the adoption of such schemes.*

**The European Foundation for the Improvement of Living and Working Conditions (Eurofound) is a tripartite EU body, whose role is to provide key actors in social policymaking with findings, knowledge and advice drawn from comparative research. The Foundation was established in 1975 by Council Regulation EEC No 1365/75 of 26 May 1975.**

doi:10.2806/30124

ISBN 978-92-897-1048-0

Publications Office