

The development of financial participation in Europe

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Abstract

In this paper, we assess the development of financial participation schemes, employee share ownership and profit-sharing in selected European countries and the degree to which they are correlated with strategic human resource management, and industrial relations, that is collective bargaining, unionization and works councils, and national context. This study adds a more dynamic perspective to the literature on the incidence of financial participation by using a longitudinal approach rarely found before. Our hypotheses are based on the theoretical frameworks of strategic human resource management (HRM), industrial relations and institutional approach. We use data drawn from the waves of the Cranet surveys on Human Resource Management: 1999/2000, 2005/06, 2010/11 and 2015/16. We find that both time and national location are important. The national context matters in particular for profit-sharing and less for employee share ownership. For both forms of financial participation, the country regulative context is also more important than industrial relations factors and HRM strategies. In general, industrial relation factors gain importance over time and become more important than the HRM strategy for employee share

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ownership (ESO) but not for profit-sharing (PS). In general, over the whole period, commitment HRM is more important for the incidence of ESO and PS than control HRM, but the relative importance of these strategies varies per year.

1 | INTRODUCTION

Employees' financial participation in their company is now widespread in many industrialized nations, though the incidence of schemes and the levels of employee participation vary considerably between countries (Pendleton and Poutsma, 2012). There is a dearth of evidence on the extent and particularly the antecedents of the development of such schemes in Europe and we contribute to filling that gap. In addition, and innovatively, we aim to provide a more comprehensive empirical insight into the processes of the development over time of financial participation under different institutional frameworks.

In general, a distinction is made between profit-sharing (PS) and employee share ownership (ESO) (including stock options). PS is where employees receive a share of the profit either in cash, in future savings or in bonds. ESO is where employees acquire equity shares in their employer so that they become shareholders: gaining a right to share in the company's profits through dividends, to access information on company financial operations and performance and gaining voting rights. Coverage is important. Schemes may be narrowly based, applying to senior executives/managers, or broad-based, with most or all employees being eligible. Because we are interested in the strategic use of schemes that generate commitment and performance of the workforce at large, we focus on broad-based schemes where all employees are eligible to participate.

A traditional view from agency theory considers financial participation as an incentive device aligning workers' interests with those of the firm and its shareholders (Jensen and Meckling 1976). It may be part of a high-performance, or high involvement, work system, aiming to instil commitment to the company (Kaarsemaker and Poutsma, 2006). Financial participation may be adopted as part of a strategic human resource management (HRM) system (Delery and Doty, 1996), aiming at aligning the interests of employees with companies' profits and shareholder value (Rosen et al., 2005; Kruse et al., 2010). However, the empirical evidence is limited. Therefore, the first objective of this paper is to assess to what extent firms adopt financial participation for strategic HRM reasons.

An important source of variety in the incidence of financial participation may be factors related to the institutional environment, including industrial relations. To the extent that financial participation takes place because of institutional pressures for conformity, this reduces the 'space' for incidence based on strategy. For instance, it is suggested that financial participation in capitalist societies may work as a 'tax efficient measure to prevent unionization'.¹ Governments in North America, Europe, Australasia and Asia have promoted various forms of financial participation by providing tax and other incentives (Pendleton and Poutsma, 2012). Such fiscal benefits may be linked to a reduction in strategic considerations related to employee commitment. Institutionally, the development of financial participation may be based on the development of shareholder value and the reliance on market-based rather than relationship-based forms of regulation of the employment relationship (Gospel and Pendleton, 2005). While in Germany, for example, national

institutions may generate relationship-based regulation balancing the competing interests of capital and labour, in liberal market economies (LMEs), such as the USA and the UK, national institutions do not perform such a role; financial participation has been more widespread in such LMEs.

In industrial relations, the dominant perspective has been that financial participation is used both to weaken trade unions and mitigate adversarial attitudes between employee groups and employers (Ramsay, 1977). The evidence for and against this thesis is largely based on case studies (Pendleton, 2005) and has been criticized for its limited conceptualization of participation (Ackers et al., 1992). Here, we try to find evidence of the co-variation of the changing incidence of financial participation in direct comparison with collective bargaining and unionization. Therefore, the second objective of the paper concerns the role of institutional factors, including industrial relation factors.

Our study contributes to the literature in several ways. It develops the emerging focus on comparative European research into financial participation by drawing on data from 12 European countries over various time points. This is the widest geographical scope of any longitudinal empirical study yet conducted and the most comprehensive inquiry yet into the structural, participation and human resource management characteristics of business organizations with financial participation for employees. While most studies are country specific, or include a limited number of countries (D'Art and Turner, 2006; Lenne, Mitchell, and Ramsay, 2006; Koziowski, M., 2014; Jones, Kalmi, Kato and Mäkinen, 2012; Long and Fang, 2015), this study adds a comparative perspective and a search for institutional explanations. In addition, it adds a more dynamic perspective to the literature on the incidence of financial participation by using a longitudinal approach rarely found before (an exception is the study by Long and Fang, 2015, for the development of PS in Canada). Finally, and also unusually, we compare the relative contributions of strategic versus institutional determinants of the incidence of financial participation over time.

The following section presents a brief overview of the main concepts and hypotheses. Then, we describe the data and methodology used; followed by the presentation of results. Finally, we discuss the importance of the results and draw conclusions.

2 | CONCEPTS AND HYPOTHESES

2.1 | Identification, commitment and performance

The most common explanation for the use of broad-based financial participation is that it provides an incentive for employees to work harder and to co-operate with each other, by aligning individual and enterprise goals. Recent meta-studies show that ESO and PS have positive effects on firm performance (O'Boyle, Patel and Gonzalez-Mulé, 2016; Nyberg, Maltarich, Abdulsalam, Essman and Cragun, 2018). Much of the research investigating this relationship (Jones and Kato, 1995; Kruse and Blasi, 1997; Robinson and Wilson, 2006; Kraft and Ugarkovic, 2006; Bryson and Freeman 2010; Pendleton and Robinson 2010) notes that any link between financial participation and firm performance is moderated or mediated by more direct HRM outcomes of changing attitudes and behaviour of employees, including job satisfaction, commitment, turnover and organizational citizenship behaviour. Overviews of such studies (Kaarsemaker, 2006; Kruse, Freeman and Blasi, 2010) show that a majority report positive impacts on these outcomes. Financial participation is, therefore, seen as a strategy for HRM to raise the commitment of employees.

Advocates of strategic human resource management (Delery and Doty 1996; Lepak et al., 2006) argue that HRM practices need to be 'bundled' (MacDuffie 1995; Delery and Doty 1996) in order to be effective. The literature draws a distinction between bundles based on either control or commitment strategies (Arthur, 1994). Financial participation schemes are held to be an important complement of commitment HRM (Rosen et al., 2005; Kaarsemaker and Poutsma, 2006). Employee ownership of an asset comes with the right to use the asset, the right to its returns and the right to sell it. To be exercised effectively, these rights require certain HRM practices, including information-sharing and training for business literacy (so that employees can understand information and participate in a meaningful way). With employee ownership, these practices theoretically form part of a 'high-commitment work system' (Kaarsemaker and Poutsma, 2006). Organizations with such work systems have the strongest impact of financial participation on employee attitudes and behaviour (Kruse, Freeman and Blasi, 2010; Rosen et al., 2005; Kaarsemaker, 2006). So, organizations practicing high-commitment HRM should be more likely to adopt financial participation than organizations not practicing high-commitment HRM. We, therefore, expect to find organizations with financial participation also having a range of commitment practices, such as explicit policies for employee communication, and sharing information on the organization's finances and strategy.

The empirical evidence to date is mixed: financial participation has been found to have beneficial impacts on performance when other forms of participation are present (Doucouliagos, 1995; Kruse, Freeman and Blasi, 2010), but there is counter-evidence (Addison and Belfield, 2000; Kalmi et al., 2005). Festing et al. (1999) found weak relationships between direct participation and the presence of either profit-sharing or share ownership, while Poutsma, Hendrickx and Huijgen (2003) found significant correlations between financial participation and direct participation in European countries, especially in France and the UK, the two countries with the highest incidence of financial participation. Long and Fang (2015) found high-commitment strategies to be a significant predictor of the presence of PS. But Poutsma, Kalmi and Pendleton (2006) found no relationship between an index of 'direct participation' practices (i.e. employee surveys, suggestion schemes, quality circles and team work) and the presence of PS or ESO in four European countries. To address the issue, we formulate hypothesis 1.

Hypothesis 1: Financial participation is more likely to be encountered within organizations practising 'commitment' HRM.

Critics of the high commitment strategy suggest that related HRM practices may be merely additional control mechanisms for management to increase the effort of employees. Following a neo-Fordist labour process approach (Friedman 1977), they argue that financial participation may lead to work intensification, which may reach unhealthy levels. An alternative focus, therefore, is on the extent to which key dimensions of 'control' HRM are associated with financial participation. UK evidence suggests that organizations offering share plans are also likely to make use of individual performance-based pay controls (Pendleton, 2006: 772) and, thus, incentives that are open to groups are combined with those operating at an individual level. Both bring greater flexibility to the price of labour (Kochan and Osterman, 1994), suggesting that financial participation may constitute part of a broader strategy of HRM control and a stronger financial orientation towards financial participation by the employer. However, Ramsay, Scholarios and Harley (2000) found no strong support for such an approach. In sum, the question emerges as to how far financial participation may be found in organizations practicing control HRM:

Hypothesis 2: Financial participation is more likely to be encountered within organizations practising ‘control’ HRM.

Aligning the interest of employees with profit and shareholder value is largely dependent on the strategic role of the HRM professional (Ulrich, 1997; Hailey, Farndale and Truss, 2005). The strategic role of HRM specialists is argued to enhance the effective utilization of financial participation, hence:

Hypothesis 3: Financial participation is more likely to be encountered within organizations where HRM has a strategic role.

Another determinant arises from the possible complementarity between share plans and employer-provided training, with one facilitating the use of the other (Pendleton and Robinson, 2011). The relationship between financial participation and training is of particular interest, since the literature argues that employees should have equal rights to owners and investors because employees also make firm-specific investments and incur potential opportunity costs from their investment (Blair, 1999). From the employee perspective, financial participation plans offer a guarantee that employees will benefit from the use of their human capital, and these plans signal that employers will not opportunistically reap all the benefits of employee engagement. The corollary of this is that employees should receive a dividend on their investment in much the same way as private investors (Pendleton et al. 2003). Equally, from the firm’s point of view, the use of financial participation helps to protect investments made by the firm in employee training. It raises the costs to employees of shirking and, since financial participation schemes frequently have deferral periods, it binds the employee to the firm in the medium term (Pendleton and Robinson, 2011). In this way, financial participation plans reduce the potential hold-up problems that may arise with training offered by the employer:

Hypothesis 4: Financial participation is more likely to be encountered within organizations where training is provided for employees.

2.2 | Financial participation and industrial relations

Trade unions are often hostile to financial participation initiatives (D’Art and Turner, 2006), which they see as promoting consensus and bypassing union representation (Gollan et al., 2006). Evidence on linkages between indirect representative participation, such as unions, consultation committees and works councils, and financial participation is mixed, with some studies finding that financial participation is more prevalent in unionized environments (Pendleton, 2001; Yates, 2006) and others finding the opposite (Festing et al., 1999). But although it seems possible that different forms of participation may be complementary, residual suspicions remain among unions in some countries (Pendleton and Poutsma 2004).

Pendleton (2005) argues that, even where union representation and ESO co-exist, the two appear to function largely independently of each other, with little union involvement in the design, implementation and operation of plans. There may be differences between types of financial participation: a four EU country study (Poutsma et al., 2006) showed that representative participation is generally negatively related to employee stock plans but positively related to PS. An explanation is that PS is more complementary to representative participation than equity-based plans because

it has much closer linkages to employee remuneration. Since employee wages are typically subject to collective bargaining in many large European firms, PS seems likely to come into the ambit of collective bargaining. ESO occurs in the 'ownership domain' of the company, and thus is quite distinct from employment and its regulation. Even where financial participation is not formally subject to collective bargaining, it may be stipulated as an issue for works councils, as in Germany. In some countries, such as Norway and Belgium, it is legally required to negotiate with employee representatives about a financial participation plan in order to get tax exemption approval.

A complicating factor is that there is diversity of pay determination arrangements at the company level within national collective bargaining, and hybridization even within single sectors (Arrowsmith and Marginson 2011, p. 74; Marginson, Arrowsmith and Gray 2008; Nergaard et al. 2009). A company's use of financial participation schemes may be influenced by the prevailing national pattern of pay determination as well as the specific form of pay determination used by the company (Kalmi, Pendleton and Poutsma, 2012). Since unions are suspicious of these plans, they may try to avoid including financial participation in pay determination:

Hypothesis 5: Financial participation is less likely to be encountered in organizations covered by collective bargaining and in organization with high unionization degrees.

2.3 | Trends over time

Most of the analysis to date has been cross-sectional and/or qualitative. We seek a more comprehensive empirical insight into the dynamic processes of the incidence of financial participation under different institutional frameworks and two approaches are relevant for our study: the convergence/divergence debate (Mayrhofer et al., 2011), and the cycles of control thesis (Ramsay, 1977; Ramsay and Haworth, 1984).

The institutional literature has long debated whether countries are becoming more similar (Brewster et al., 2016; Kaufman, 2016). The proponents of the convergence thesis maintain that efficient management approaches are universally accepted and applicable. Thus, technological and strategic conditions determine the efficiency of application of management systems (Dore, 2000). The approach assumes that any national differences that might arise from varying value orientations and institutions are superseded by the logic of technology and markets. According to this line of argument, only antecedents specific to the organization would explain the existence of financial participation, while country-specific influences can be neglected. Advocates of the divergence thesis argue that national, specifically cultural and institutional, frames of reference strongly influence behaviour. Country-specific features should have major explanatory value for the existence of financial participation.

One important institutional pressure comes from law and regulations. Several governments of European countries have developed regulations that may favour the incidence of financial participation, mainly through tax exemption rules, while other governments generally do not provide support or have regulatory barriers (Pendleton and Poutsma, 2004). Another important institution influencing financial participation is the stock market: in economies where there are well-developed and liquid stock markets and dispersed ownership, governments and organizations are more likely to see stock-based instruments as a viable form of employee reward (Black et al., 2007). The LMEs are notable for having relatively large numbers of stock market listed firms and equity markets with dispersed ownership (Gospel and Pendleton, 2003). The potential attractiveness of

company shares lies partly in their liquidity: where shares are easily convertible into cash, they will be more attractive to employees.

By contrast, in coordinated market economies (CMEs), such as Germany, employees are more likely to enjoy a combination of mutually reinforcing collective voice mechanisms, underpinning cooperative business models (Brewster et al., 2007). So, in CMEs, employee commitment might be secured through well-developed systems for employee involvement and representation instead of through financial participation. A similar argument is made in the research of potential complementary benefits between employee participation and ESO in Finland (a CME), where complementarities may be significantly weaker than in LMEs (Jones et al., 2017: 414). In support of this thesis, ESO is more likely to be encountered in the UK and the USA. Public listing appears to be a strong determinant for both ESO and PS (Black et al., 2007; Pendleton et al., 2003).

At the same time, in continental Europe, there is a wide divergence in the promotion of and incidence of financial participation. France has the highest incidence with a well-developed employee savings system that allows employees to channel bonuses and savings into employer stock; and is also one of only a few countries with legally required PS schemes and, therefore, the highest incidence of such schemes. Germany has not traditionally promoted ESO, but here, as in Austria, PS is more developed, and is usually part of collective bargaining. In Western Europe, the countries with the lowest use of ESO and PS have tended to be the Southern countries (Greece, Italy, Portugal and Spain). For a while, some Eastern European countries had high levels of employee ownership as shares were offered to employees to reduce opposition to privatizations in the transition from soviet-style economies, but this has almost disappeared (Mygind 2012).

Given the previously summarized accounts in the literature (Farndale, Ligthart, Brewster and Poutsma, 2017), divergence will probably be the overarching picture of incidence of financial participation. Hence, our divergence and convergence theses:

Hypothesis 6a: National contexts are more important than other factors for determining the variety in financial participation over time.

Hypothesis 6b: HRM strategy factors are more important than other factors for determining the variety in financial participation over time.

A second set of explanatory theses adopts the 'cycles of control' thesis (Ramsay and Haworth, 1984), arguing that managerial support for participation grows in periods of economic expansion, when employees' bargaining power rises and employers search for alternative means of employee commitment outside the collective bargaining relationship. Conversely, managerial support for participation wanes when economic conditions decline and employer bargaining power is strengthened. In a multi-country study, Kalmi, Pendleton and Poutsma (2012) suggest that decentralized pay-setters appear to be able to resist institutional normative pressures from centralized regimes, which potentially enables them to introduce innovative HRM practices, such as share ownership: such companies may achieve greater economic benefits from these schemes than firms adhering to regime norms. By contrast, decentralized pay-setters and other companies in decentralized regimes already have a high ability (not influenced by union bargaining power) to optimize their human resource decisions (Kalmi et al., 2012: 1650).

Support for and criticism of the cycle thesis is mainly based on case studies and experience in the UK context (Ackers et al., 1992). A summary of UK evidence for financial participation is provided by Pendleton (2005) where he concludes that the cycles of control may not adequately capture interest in financial participation and that other factors may need to be factored in, such

as the emergence of 'shareholder value' and related strategies to commit employees. Based on the above, we formulate a 'cycle of control' hypothesis.

Hypothesis 6c: Industrial relation factors are more important than other factors for determining the variety in financial participation over time.

3 | DATA AND METHODS

We use data drawn from four waves of the Cranet surveys of human resource management: 1999/2000, 2005/06, 2010/11 and 2015/16. The time period 1999–2016 represents periods of crisis and economic recovery; the dot-com bubble affecting 1999/2000 and the global financial crisis affecting 2010/2011, reflected also in the GDP measures that we included in the analysis. Data were available for 12 European countries: Austria, Belgium, Denmark, France, Germany, Greece, Finland, Netherlands, Norway, Sweden, Switzerland and the UK.² The survey aims to draw representative national samples and is directed to managers responsible for HRM in large-scale (> 100 employees) organizations. The most senior HRM specialist in each organization was asked to respond on items that cover most of the HRM practices in their business (for a detailed description of the sampling procedure, see: Brewster et al., 2004).³ The survey targets organizational units for which the senior HRM specialist is responsible. The unit could be a single unit independent enterprise in the country, a single unit establishment in the country or multi-unit establishments in the country. About 29% of respondents answered the question for the situation in organization with more than one establishment.⁴ We assume that the HR manager is knowledgeable about the HRM practices in the units they are responsible for. Surveys targeting responsibility domain areas of respondents are likely more reliable than higher corporate-level surveys, because the responsibility domain areas are smaller, managers are more familiar with HRM practices because they are responsible for implementing them and HRM practices are more homogenous (Gerhart, Wright and McMahan, 2000: 866).

Data are collected via a pre-tested questionnaire constructed by a multi-national team in English and translated and back-translated into the language or languages of the country (Brislin 1976; Matsumoto and van de Vijver, 2010). For this paper, we exclude from further analysis organizations that were: (1) public or semi-public, or (2) employed less than 100 employees. Response rates for the individual countries varied between 12% and 35%. In smaller countries, data are collected from full population surveys through census or random sampling. In large countries, data are from representative stratified samples. Stratified sampling is according to industry and size and private-public sector (more details about Cranet methodology can be found in Parry, Farn-dale, Brewster and Morley, 2021). Nevertheless, we decided to weight⁵ the data to improve the representativeness of the findings, using the OECD Structural Business Statistics (OECD, 2019) for medium and large organizations by country by year and industry. The data at each point represent the (changing) national economies at each time; these are not panel data, so individual firms cannot be followed over time.

Several factors in the design of this study would limit any problems associated with common method variance (Lindell and Whitney, 2001; Podsakoff et al., 2003). First, the individual indicators of our focal variables were spread throughout the survey, rather than concentrated in a single section. The measures of financial participation practices were not presented adjacent to those focusing on other HRM practices and other determinants used in the analysis. Second, the

questions in the survey primarily asked for factual information, for yes/no answers or for numbers or percentages, rather than opinions. Third, the anonymity of respondents was guaranteed.

3.1 | Operationalization

Our dependent variables consisted of the presence of broad-based ESO and PS. The operationalization is based on the question: Do you offer employee share schemes and/or stock options; with the same question for PS. Respondents answer for which personnel category the questions apply: management, professionals, clerical personnel and manual/operational personnel. We focussed the analysis on 'broad-based' schemes, applied to one or more other categories of personnel. Note that this means eligibility and not actual participation in the schemes. We do not have data of actual participation. Although actual participation would enrich the analysis, in this study we are mainly interested in the development of the incidence of broad-based eligibility as a strategic option for organizations. We found 17.2% of organizations having broad-based ESO and 43.6% broad-based PS in place, pooled for all years and countries.

For the independent variables, we distinguish between HRM strategy factors and industrial relation factors. HRM strategy factors are identified from the strategic role of the HRM department in the organization and by two bundles of HRM practices: 'commitment' and 'control'.

The strategic role of HRM is measured by three variables: (1) the presence of the HRM specialist on the company's main board of directors (or equivalent), (2) the point at which the HRM department became involved in corporate strategy (early discussion, formulation on implementation) and (3) a scale variable measuring the extent of primary responsibility of the HRM department for major policy decisions on five HRM issues: pay and benefits, recruitment and selection, training and development, industrial relations and workforce expansion/reduction.

The distinction between control and commitment HRM is based on two strands in the strategic HRM literature with different perspectives on direction and alignment of employees: (1) the 'hard-control' model, and (2) the 'soft-commitment' model (for reviews, see Arthur 1994; Legge 1995; Wood 1999; Gooderham, Nordhaug and Ringdal 1999; Hauff et al., 2014). The 'hard' model is rooted in an approach aimed at the most cost-efficient use of human resources. Efficiency-promoting practices aim at ensuring that each employee's contribution is assessed and responded to accordingly, through individual performance appraisal and individualized reward systems. The commitment approach is enhanced when management formulates an overarching mission or strategy and communicates the company's strategy through briefings with employees at all levels. Although the HRM literature recognizes the divide between the two models, there is little consensus on what behaviours constitute 'control' HRM and 'commitment' HRM. We follow the operationalization by Gooderham et al. (1999) in selecting a limited set of practices that covers the core content of the two models as tested in the literature (e.g. Lepak and Snell, 2002; see for an inventory Hauff et al., 2014).

For the development of scales of both commitment and control HRM, we used the Mokken Scaling Program (MSP; Molenaar & Sijtsma, 2000). This approach, a probabilistic version of the deterministic Guttman model, was used to determine the degree to which the prevalence of a set of HRM practices in organizations can be explained by a cumulative latent trait of these organizations. The results of this procedure were the two HRM bundles 'commitment' and 'control' with high level scores of reliability and scalability. The results of the scaling are found in Appendix 1.

The commitment HRM bundle consists of those practices where employees are informed about the business case, express their views and thereby are enabled to make joint decisions: strategy

briefings, performance briefings and written mission statements. We did not include structural work organization features like teamwork, as these neither tell us much about actual participation in decision making, nor are they a necessary pre-condition. Different from other authors, the bundle includes a coverage dimension indicating to what extent the bundle is applied to all employee categories.

The control HRM bundle consists of the following practices: (1) performance appraisal and (2) individual performance-related pay. This operationalization of the individual control policy captures the extent to which firms formally monitor and evaluate performance across all individuals. This bundle also contains a coverage dimension indicating the extent to which the bundle is applied to all employee categories. Since the two bundles correlate, a sensitivity analysis was performed including the combination of control and commitment HRM in the equation. The interaction effects were not significant for both ESO and PS. The interaction effect does not substitute the simple effects of these HRM strategies as well as the other effects incorporated in the full model.

The industrial relation factors consist of the level of collective bargaining, the presence of a works council or joint consultative committee and the extent of unionization. We distinguished broad-based multi-employer (national/sectoral) collective bargaining, single employer (company level) collective bargaining and hybrid multi-level collective bargaining (organizations are covered by both national and company-level bargaining). The unionization continuous variable is measured by the midpoints of categories in the questionnaire. Since the works council variable and the unionization variable had missing data, we added 'missings' as a separate category.

The national context is measured by the country variables using the United Kingdom as reference category. Furthermore, we included two additional context variables, that is the yearly GDP and the unemployment rates measured of the year before each wave ($t-1$, OECD, 2020) to capture nation's economic variations over time.

Control variables included the international character of the organization. Multinational companies may develop financial participation practices as part of a strategy of transferring HRM practices to its foreign subsidiaries, possibly challenging local institutional forces (Poutsma, Ligthart and Schouteten, 2005).

Second, we used industry as a control, since the development of financial participation is related to sector-specific technology or labour markets. The survey uses the international NACE classification of organizations in subsectors. Manufacturing is the reference category.

In addition, we controlled for: stock exchange listing and organization size, measured as the logarithm of the number of employees. Also, we included a control variable type of organizational response indicating whether respondent answered for a single establishment or for more than one establishment. For both forms of financial participation, we included the other form as a control variable in order to test for complementarity and substitutability. For both types of financial participation, the models with and without control of another form of participation showed almost identical findings, suggesting that organizations can be differentiated in their determinants for either ESO or PS. Since the Cranet dataset includes company-level data of firms nested in 12 countries, the analysis incorporated clustered robust standard error to account for the within-country correlations. We conducted a fixed-effect logistic regression model using STATA (mlogit version 16.1, StataCorp 2019). Appendix 2 presents descriptives, and Appendix 3 presents the correlations.

4 | RESULTS

Table 1 shows the weighed incidence rates of ESO and PS per country over time.⁶ There is quite some variance. The changes in incidence rates of ESO and PS per country over time may be due to

TABLE 1 Percentage of organizations with broad-based employee share ownership (ESO) and broad-based profit sharing (PS) per country and year (weighted by private organizations 50+ employees by country by year by industry)

Country	ESO 2000	ESO 2005	ESO 2010	ESO 2015	PS 2000	PS 2005	PS 2010	PS 2015
United Kingdom	29.8%	34.7%	29.6%	13.7%	31.1%	20.2%	10.3%	20.4%
France	20.8%	29.3%	17.4%	18.0%	84.4%	91.6%	75.0%	89.4%
Germany	9.8%	13.4%	11.5%	9.7%	37.6%	58.9%	47.7%	47.4%
Sweden	14.4%	15.5%	9.3%	10.5%	19.4%	28.3%	15.7%	21.5%
Denmark	13.9%	47.2%	21.2%	12.7%	9.9%	9.0%	8.4%	13.3%
The Netherlands	15.9%	15.3%	18.3%	7.2%	50.6%	45.8%	49.5%	35.4%
Norway	15.7%	45.7%	16.9%	26.1%	17.6%	21.6%	9.9%	21.0%
Switzerland	6.4%	15.3%	10.7%	13.8%	50.6%	54.3%	51.7%	36.4%
Finland	19.9%	16.0%	8.8%	16.0%	31.5%	85.8%	67.6%	25.7%
Greece	6.7%	22.0%	14.8%	9.2%	7.8%	13.1%	6.3%	4.2%
Austria	2.5%	12.5%	10.9%	7.8%	33.8%	41.4%	42.9%	34.7%
Belgium	13.9%	20.3%	23.1%	25.2%	11.8%	14.2%	20.9%	21.3%
Incidence rate per year	17.1%	23.2%	16.8%	12.4%	42.9%	50.3%	40.6%	41.3%
Observations, N =	2707	2376	1557	1425	2707	2376	1557	1425

changes in regulations and economic development. For some countries, the 2005/06 economic situation was positive and heightened interest in stock options, especially in Norway and Denmark (also influenced by supportive tax exemptions), and in Greece. The first two countries, alongside the UK and France, show on average the highest incidence rates for ESO. Although 2005/06 also showed the highest levels for PS schemes, on this measure another group of countries scored relatively high: France, Germany, Finland and Switzerland. The global financial crisis that began in 2008 affected the incidence of ESO and PS in most countries, and for some countries, this effect continued into the following wave in 2015/16. Swedish, Finnish and Greek economies were hit heavily by the crisis. For the UK, despite supportive regulations, HM revenue and customs note a drop in number of all-employee schemes (Save-As-You-Earn) after 2008 (HMRC, 2018). Torp (2016) found in a survey among the top 500 companies in Denmark, after an increase at the beginning of the 21st century, a decline of broad-based ESO plans and suggests that this is due to the financial crisis. Some countries changed regulations and tax treatment⁷ making ESO and PS less attractive, such as the Netherlands in 2012 (for both ESO and PS) and Denmark in 2012 (for ESO). Other countries expanded their supporting regulations after 2008, such as Belgium (for stock options in 2009) and France (for PS in 2008) and report a somewhat higher incidence of ESO and PS after the global financial crisis (Wilke, Maack and Partner, 2014; Lowitzsch et al. 2009 and Lowitzsch et al., 2012 provide more details regarding changes in regulations and developments). In addition, we explored the country-level variation in Table 2 by adding country GDP and unemployment rates ($t-1$) as control variables (OECD, 2020). Although both GDP and unemployment did not affect significantly the incidence of ESO and PS in 2015, both variables had a significant negative impact in the previous years. The analysis shows that the waves after periods of economic downturn (1999/2000 and 2010/2011, respectively, the dot-com and global financial crises) show lower incidence of ESO, but not so much for PS. Particularly, the unemployment rate in 2010/11 shortly after the economic 2008 crisis had the greatest negative impact on the incidence of ESO (OR: 0.659 $p < 0.006$). The incidence of ESO and PS is also correlated with organizational performance (gross revenue), which we included as an additional control variable.

The results of the analysis are presented in Table 2. The cells present the odds-ratio for the firm-level determinants being the exponentiated b-coefficient. Taking into account the non-linear logistic regression model, the odds ratio is interpretable as an effect size (Tabachnick and Fidell 2013). An odds-ratio above 1 represents a positive effect and less than 1 a negative effect. We present the analysis in a main-effects only model and a full model including all year interactions.⁸ All models appear to be significant and relevant as the pseudo R-square ranges between 0.281 and 0.430.

Our first hypotheses predict (1) that financial participation is more likely to be encountered within organizations practising commitment HRM and (2) in control HRM. Hypothesis 1 is supported by the significant positive odds ratios for both share ownership and PS (main-effects model). For every additional commitment HRM practice that organizations adopt, the odds of offering ESO increases by 1.210 and PS by 1.153. In the full model, the positive effect of commitment HRM strategy on ESO is found at the end of the period studied: 2015/16. Contrasted against 2015/16, the yearly interaction effects show a non-significant deviation in the waves 1999/2000 and 2010/11, suggesting no change in its positive association with ESO. The positive interaction effect in 2005/06 suggests that commitment HRM was more important for ESO in 2005/06 than in 2015/16. In the full model for PS, there are no significant differences for commitment HRM between its positive effect in the reference year in 2015/16 and the earlier years. Over the whole period, the effects suggest a continuing positive association of commitment HRM with PS.

TABLE 2 Odds-ratios of the determinants for broad-based employee share ownership (ESO) and profit-sharing (PS). Models: main effects only, and full model (weighted by private organizations 50+ employees by country by year by industry)

<i>Model</i>	<i>Indicator</i>	<i>ESO main effects only</i>	<i>robust se</i>	<i>ESO full model</i>	<i>robust se</i>	<i>PS main effects only</i>	<i>robust se</i>	<i>PS full model</i>	<i>robust se</i>
HRM strategy factors									
Commitment HRM	Commitment_HRM	1.210**	[0.044]	1.119**	[0.046]	1.153**	[0.024]	1.160**	[0.035]
Commitment HRM * Year	Commit*2000			1.044	[0.050]			1.065	[0.053]
	Commit*2005			1.258**	[0.093]			0.956	[0.044]
	Commit*2010			1.031	[0.079]			0.999	[0.073]
Control HRM	Control_HRM	1.122**	[0.028]	1.174**	[0.053]	1.081+	[0.050]	1.050	[0.043]
	Control*2000			0.896*	[0.043]			0.934	[0.063]
	Control*2005			0.947	[0.057]			1.235*	[0.110]
	Control*2010			1.067	[0.079]			0.958	[0.068]
HR mngr in board of directors (base: no)	HRM on board_yes	1.133	[0.167]	0.979	[0.502]	1.099	[0.095]	0.988	[0.117]
	HRM on board_missings	1.554	[0.532]	3.841	[5.086]	1.852+	[0.653]	12.429**	[8.859]
HRM board * Year	HRMboard*2000			0.929	[0.481]			1.234	[0.240]
	HRMboard*2005			0.989	[0.533]			1.083	[0.188]
	HRMboard*2010			1.888	[1.032]			1.005	[0.180]
	Missings*2000			0.063+	[0.094]			0.132*	[0.113]
	Missings*2005			0.590	[0.787]			0.165*	[0.139]
HR involved in strategy (base: not consulted)	Missings*2010			0.368	[0.536]			0.051**	[0.052]
	HRMinvolved	1.097	[0.156]	0.859	[0.238]	0.940	[0.081]	1.129	[0.170]
HR involved * Year	HRMinvolved*2000			1.308	[0.462]			0.874	[0.157]
	HRMinvolved*2005			1.226	[0.392]			0.700	[0.164]
	HRMinvolved*2010			1.470	[0.817]			0.823	[0.156]

(Continues)

TABLE 2 (Continued)

<i>Model</i>	<i>Indicator</i>	<i>ESO main effects only</i>	<i>robust se</i>	<i>ESO full model</i>	<i>robust se</i>	<i>PS main effects only</i>	<i>robust se</i>	<i>PS full model</i>	<i>robust se</i>
HR policy responsibilities	HRMPolicies	1.019	[0.027]	1.012	[0.064]	1.010	[0.025]	1.103**	[0.036]
HR polices * Year	HRMPolicies*2000			0.965	[0.070]			0.873**	[0.040]
	HRMPolicies*2005			0.976	[0.072]			0.921	[0.081]
	HRMPolicies*2010			1.078	[0.083]			0.884*	[0.052]
Training	Training	1.195	[0.146]	2.219**	[0.565]	1.117	[0.162]	1.315	[0.283]
Training * Year	Train*2000			0.476**	[0.134]			0.871	[0.207]
	Train*2005			0.417**	[0.132]			1.163	[0.272]
	Train*2010			0.518+	[0.201]			0.574+	[0.185]
Industrial relation factors									
Collective bargaining (base: no Bargaining)	Multi-employer only	0.918	[0.226]	3.697*	[2.017]	1.143	[0.138]	1.360	[0.307]
	Single employer only	0.973	[0.191]	2.107	[1.155]	1.584**	[0.218]	1.745*	[0.410]
	Hybrid Bargaining	0.987	[0.196]	3.686**	[1.095]	1.135	[0.143]	1.052	[0.258]
Collective bargaining * Year	Multi-employer*2000			0.192*	[0.133]			0.593	[0.228]
	Multi-employer*2005			0.216*	[0.138]			0.975	[0.412]
	Multi-employer*2010			0.140**	[0.098]			0.688	[0.174]
	Single employer*2000			0.395	[0.254]			0.892	[0.423]
	Single employer*2005			0.463	[0.271]			0.654	[0.270]
	Single employer*2010			0.364	[0.256]			0.878	[0.239]
	Hybrid Bargaining*2000			0.166**	[0.067]			0.940	[0.390]
	Hybrid Bargaining*2005			0.208**	[0.081]			1.110	[0.344]
	Hybrid Bargaining*2010			0.260**	[0.118]			0.987	[0.371]

(Continues)

TABLE 2 (Continued)

<i>Model</i>	<i>Indicator</i>	<i>ESO main effects only</i>	<i>robust se</i>	<i>ESO full model</i>	<i>robust se</i>	<i>PS main effects only</i>	<i>robust se</i>	<i>PS full model</i>	<i>robust se</i>
Unionization	Percentage unionization	0.992*	[0.003]	0.990	[0.006]	0.995+	[0.003]	0.997	[0.004]
	Unionization missing	0.993	[0.144]	1.567	[0.689]	0.790**	[0.060]	0.659*	[0.117]
Unionization * Year	Unionization*2000			1.003	[0.009]			0.993	[0.006]
	Unionization*2005			0.999	[0.007]			1.008	[0.005]
	Unionization*2010			1.002	[0.007]			0.995	[0.006]
	Missings*2000			0.501	[0.222]			1.235	[0.235]
	Missings*2005			0.717	[0.319]			1.188	[0.260]
	Missings*2010			0.544	[0.287]			1.526+	[0.341]
Join Consultation\Works Council (base: no)	JWC_yes	0.766	[0.128]	0.848	[0.183]	0.883	[0.078]	0.863	[0.122]
	JWC_missings	0.777	[0.649]	4.081	[4.083]	0.693	[0.349]	0.672	[0.571]
JWC * Year	JWC*2000			1.215	[0.279]			0.991	[0.194]
	JWC*2005			1.200	[0.312]			0.713	[0.169]
	JWC*2010			0.559+	[0.171]			1.390	[0.316]
	Missings*2000			0.156+	[0.170]			1.569	[1.472]
	Missings*2005			1.512	[1.611]			0.357	[0.608]
	Missings*2010			0.013*	[0.022]			1.597	[1.784]
Control variables	Country (base: UK)								
	France	1.348	[0.258]	1.318	[0.287]	59.747**	[14.379]	66.312**	[15.717]
	Germany	0.404**	[0.107]	0.350**	[0.113]	8.128**	[2.909]	8.899**	[3.415]
	Sweden	0.566	[0.206]	0.564	[0.236]	1.017	[0.489]	1.003	[0.520]
	Denmark	0.976	[0.569]	0.999	[0.642]	0.265+	[0.205]	0.209+	[0.182]
	The Netherlands	0.254*	[0.143]	0.222*	[0.133]	2.069	[1.430]	2.163	[1.649]
	Norway	0.320	[0.482]	0.290	[0.478]	0.081	[0.155]	0.069	[0.147]
	Switzerland	0.095*	[0.095]	0.081*	[0.086]	1.337	[1.705]	1.234	[1.745]

(Continues)

TABLE 2 (Continued)

<i>Model</i>	<i>Indicator</i>	<i>ESO main effects only</i>	<i>robust se</i>	<i>ESO full model</i>	<i>robust se</i>	<i>PS main effects only</i>	<i>robust se</i>	<i>PS full model</i>	<i>robust se</i>
	Finland	0.914	[0.359]	0.835	[0.361]	6.440**	[3.485]	6.876**	[3.580]
	Greece	1.766	[0.917]	1.858	[1.187]	0.978	[0.554]	0.847	[0.631]
	Austria	0.200**	[0.099]	0.184**	[0.084]	3.971**	[1.846]	3.996**	[2.008]
	Belgium	1.244	[0.382]	1.107	[0.364]	0.822	[0.366]	0.834	[0.419]
Year (base: 2015)	2000	1.276	[0.604]	6.125*	[5.246]	2.199	[1.333]	2.654	[2.208]
	2005	2.461**	[0.750]	8.670**	[6.394]	2.703**	[1.034]	5.296**	[2.917]
	2010	1.830**	[0.384]	6.516+	[6.351]	0.996	[0.231]	1.165	[0.462]
Gross Domestic Product (GDP t-1, base 2015)	GDP	1.138+	[0.085]	1.134	[0.093]	1.135	[0.101]	1.153	[0.116]
GDP * Year	GDP*2000	0.880**	[0.032]	0.889**	[0.030]	0.929*	[0.031]	0.923*	[0.031]
	GDP*2005	0.975	[0.032]	0.988	[0.031]	1.032	[0.030]	1.008	[0.029]
	GDP*2010	0.853**	[0.045]	0.869**	[0.039]	1.042	[0.061]	1.018	[0.059]
Unemployment rate (t-1, base 2015)	Unemployment	1.079	[0.053]	1.061	[0.057]	1.071	[0.050]	1.081	[0.057]
Unemployment * Year	Unemployment*2000	0.788**	[0.058]	0.816**	[0.056]	0.759**	[0.048]	0.748**	[0.051]
	Unemployment*2005	0.826**	[0.042]	0.863**	[0.043]	1.088*	[0.046]	1.069	[0.067]
	Unemployment*2010	0.659**	[0.100]	0.689**	[0.093]	1.015	[0.170]	0.930	[0.170]
Industry (base: manufacturing)	Construction	1.451	[0.349]	1.385	[0.307]	1.423+	[0.295]	1.371	[0.291]
	Transportation	1.220	[0.286]	1.156	[0.294]	0.547*	[0.135]	0.542**	[0.129]
	Banking and finance	1.498*	[0.235]	1.468*	[0.224]	0.798	[0.157]	0.790	[0.159]
	Chemicals (energy; non-energy)	2.347**	[0.414]	2.355**	[0.436]	0.867	[0.109]	0.866	[0.107]
	Other industries (e.g. services)	0.953	[0.114]	0.964	[0.112]	0.736**	[0.061]	0.744**	[0.065]
Size (number of employees)	Size(log)	1.371**	[0.065]	1.375**	[0.066]	1.226**	[0.072]	1.223**	[0.070]

(Continues)

TABLE 2 (Continued)

<i>Model</i>	<i>Indicator</i>	<i>ESO main effects only</i>	<i>robust se</i>	<i>ESO full model</i>	<i>robust se</i>	<i>PS main effects only</i>	<i>robust se</i>	<i>PS full model</i>	<i>robust se</i>
Listed stock exchange	Indicated	3.838**	[0.912]	3.901**	[0.969]	0.977	[0.129]	0.962	[0.118]
Gross Revenue	Gross Revenue	1.117**	[0.047]	1.137**	[0.048]	1.121+	[0.071]	1.125+	[0.070]
Organization response level (base: establishment)	Multi-establishment	0.941	[0.132]	0.880	[0.114]	1.150	[0.113]	1.159	[0.121]
Multinational (base: national)	Level missing	1.177	[0.298]	1.117	[0.269]	0.921	[0.325]	0.945	[0.338]
Other form of financial participation	Multinational	1.777**	[0.155]	1.807**	[0.180]	0.838	[0.099]	0.861	[0.103]
	Profit-sharing schemes	1.769**	[0.229]	1.780**	[0.223]				
	Employee share plans					1.957**	[0.171]	1.979**	[0.186]
Constant	Intercept firm	0.003**	[0.002]	0.001**	[0.001]	0.021**	[0.009]	0.018**	[0.006]
Model statistics	Observations	8065		8065		8065		8065	
Effect size model	Cragg-Uhler R^2	0.281		0.314		0.405		0.430	
	Loglikelihood	-5706		-5562		-6277		-6142	
	Chi square	81,196		4275		4,644e+06		30789	
	Df	47		47		47		47	
	p-value <	0.001		0.001		0.001		0.001	

Note: Two-sided significance level ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$.

According to the main-effect model, for control HRM practices, the odds of offering ESO increases by 1.122 and for PS by 1.081 (one-sided $p < 0.045$). The full model does not report significant differences for control HRM between the reference year in 2015/16 and earlier two waves, but in 1999/2000, the incidence of ESO was lower than in the following waves. For PS, the positive effect of control HRM disappeared in the last year 2015/16, that is the odds ratio (1.050) is not significant. Only in the year 2005/06, control HRM increased the likeliness of offering PS, no effects of control HRM are found in the years 1999/00 and 2010/11. The overall trend suggests a decreasing impact of control HRM on the probability of PS being offered.

In addition, in Table 3, we investigated the effect sizes of commitment and control HRM relative to other factors. In general, over the whole period, it shows that for the incidence of ESO and PS, commitment HRM is more important than control HRM, but the relative importance varies per year.

Hypothesis 3 predicts that financial participation is more likely to be encountered within organizations where the HRM function has a strategic role. This hypothesis is supported for neither ESO nor for PS: neither HR managers on the board, nor the involvement of the HRM specialists in strategy development, nor HRM responsibility for policies, produce significant effects for ESO and PS in the main-effect model. The full model does show some positive changes over time for PS, associated with HRM policy responsibilities, that is the significant positive effect of HR policy responsibilities in 2015/16 (OR: 1.103) is preceded with significant negative effects in the years 1999/00 (OR: 0.873) and 2010/11 (OR: 0.884).

Hypothesis 4 predicts that financial participation is more likely to be encountered in organizations where training is provided for employees. This hypothesis is not supported in the main-effect model for either ESO or PS, that is the odds ratios are not significant. Looking at the full model, a positive relationship between training and ESO is noticeable at the end of the period 2015/16. Compared with 2015/16, training appeared to be less likely to affect ESO in earlier years. This suggests a trend of increasing importance of the influence of investment in training in later years for ESO. Training did not affect PS significantly positive in 2015/16 nor in the earlier waves.

Hypothesis 5 predicts that financial participation is less likely to be encountered in organizations covered by collective bargaining and in organizations with high unionization. For collective bargaining, non-significant odds ratios as tested by the main-effect models for ESO do not support this hypothesis overall (no significant odds-ratios in the main-effect model). The full model does show a positive effect of some forms of collective bargaining at the end of period studied. In comparison with the reference year 2015/16, multi-employer and hybrid bargaining showed less likelihood of ESO in all the previous years, suggesting an increasing importance of ESO under collective bargaining over time. Single employer collective bargaining did not affect the likelihood of ESO in most years, with its impact least less likely in the wave to 2010/11. For PS, the significant positive effect for single employer bargaining is also not in line with the predicted negative impact. The full model shows no negative effects of collective bargaining on PS in the reference year. Given the positive impact of two forms of collective bargaining on ESO and single employer bargaining on PS in the last year of the period studied, the development over time suggests an increased correlation with collective bargaining over time. This lends some support for the cycle of control thesis. In the main-effect model, the extent of unionization is negatively associated with ESO for the period overall, but the effect is small. There are no differences found in 2015/16 and earlier years in the full model, suggesting no changes over the years. For PS, only a small negative effect is found in the main-effect model (one-sided p value < 0.035).

TABLE 3 Effect size (Cragg-Uhler pseudo R-square changed) per model (sub)compound added per year (weighted by private organizations 50+ employees by country by year by industry)

<i>Compound</i>	<i>ESO_2000</i>	<i>ESO_2005</i>	<i>ESO_2010</i>	<i>ESO_2015</i>	<i>Employee shares (2000-15)</i>
HRM strategy	0.027	0.117	0.062	0.047	0.041
sub commitment	0.007	0.088	0.008	0.006	0.019
sub control	0.003	0.018	0.002 ^a	0.007	0.010
sub other HRM strat.	0.017	0.011	0.052	0.034	0.012
Industrial relations	0.013	0.036	0.062	0.115	0.031
Controls	0.117	0.090	0.303	0.292	0.173
Industry	0.035	0.033	0.030	0.064	0.012
Country	0.078	0.068	0.067	0.164	0.057
<i>Full model</i>	0.269	0.344	0.524	0.682	0.314
<i>Compound</i>	<i>PS_2000</i>	<i>PS_2005</i>	<i>PS_2010</i>	<i>PS_2015</i>	<i>Profit sharing (2000-15)</i>
HRM strategy	0.019	0.059	0.081	0.064	0.026
sub commitment	0.007	0.005	0.028	0.003	0.011
sub control	0.005	0.036	0.004	0.034	0.006
sub other HRM strat.	0.007	0.018	0.049	0.027	0.009
Industrial relations	0.028	0.036	0.041	0.052	0.022
Controls	0.077	0.086	0.077	0.104	0.044
Industry	0.031	0.045	0.034	0.051	0.007
Country	0.318	0.367	0.430	0.438	0.331
<i>Full model</i>	0.473	0.593	0.663	0.709	0.430

Note: All compounds in the table are significant with $p < 0.05$, except from the value of 0.002 for subcontrol of ESO 2010 as indicated in the Table by a.

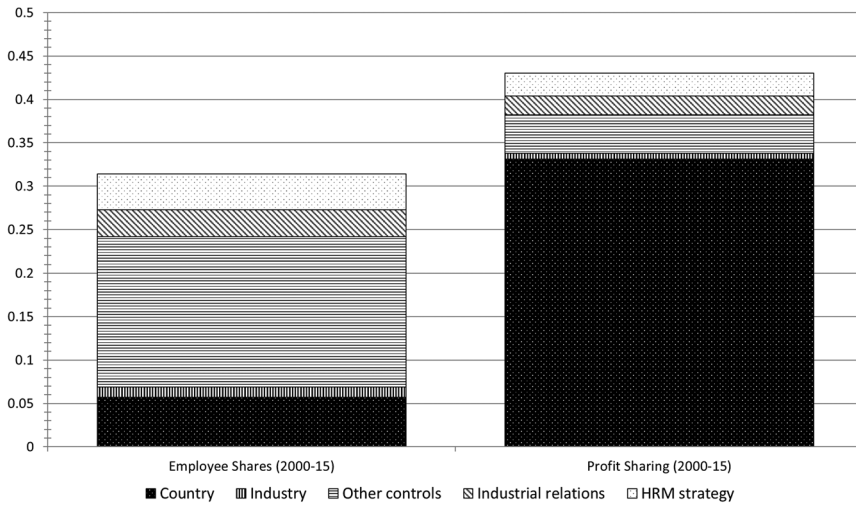


FIGURE 1 Proportional effect size (Cragg-Uhler pseudo R-square) per compound added for employee share ownership (ESO) and profit-sharing (PS) across years. (weighted by private organizations 50+ employees by country by year by industry)

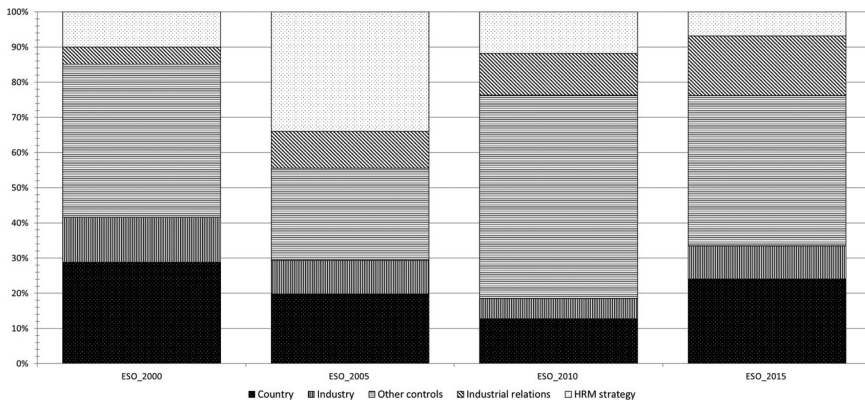


FIGURE 2 Relative effect size (Cragg-Uhler pseudo R-square) for employee share ownership (ESO) per compound added per year (weighted by private organizations 50+ employees by country by industry)

Hypotheses 6a–c focus mainly on the compound effects of country, HRM strategy factors and industrial relation factors (Table 3) and their effect sizes per year (see also Figures 1–3). The compound of HRM strategy factors consists of the strategic role of the HRM function, the two HRM strategy bundles and training. The compound of industrial relation factors consists of the level of collective bargaining, unionization and existence of joint works council or similar. The compound of control factors consists of the international character of the organization, industry, size, stock-listing and performance of the organization in terms of gross revenue. The type of industry is separated out from the controls since industry appeared to be an important determinant in general. The compound factor of country includes GDP and unemployment per country per year.

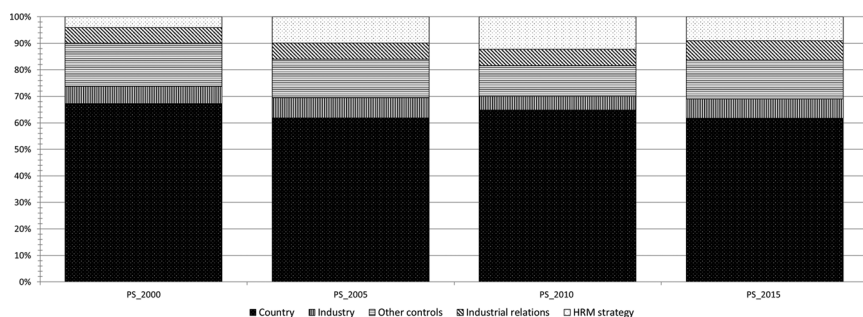


FIGURE 3 Relative effect size (Cragg-Uhler pseudo R-square) for profit sharing (PS) per compound added per year (weighted by private organizations 50+ employees by country by industry)

Hypothesis 6a predicts that national context is likely to be more important than other factors in determining financial participation. This hypothesis is supported. Substantial variance from country is found for PS and limited variance for ESO (Table 3 and Figure 1). Table 3 shows that relative to the other compound factors, country explains more variance in ESO than industrial relations or strategy factors, especially in 2015/16. For ESO, this outcome does not support hypotheses 6b and 6c. Looking at the year-by-year results, industrial relation factors are initially less important than HRM strategy factors but increasingly gain importance across the years. HRM strategy appears to lose importance over time.

In the case of PS, over the years, country produces the strongest effects over and above other factors; HRM strategy factors follow as second, and industrial relation factors as third, representing support for the divergence hypothesis 6a. The hypotheses 6b and 6c are not supported for PS; industrial relations and strategic factors are not more important than other factors in determining the variety in PS over time. Also, for PS, industrial relation factors gain importance over time but remain less important than HRM strategy factors over time.

Since the background of Hypothesis 6c on industrial relations is the cycle of control thesis, we included in the analysis OECD unemployment figures per country per year. The results in Table 2 reveal differences in time for the full model. For ESO, in the years before 2015/16, unemployment is negatively associated with incidence of ESO, suggesting that tied labour markets have a positive effect on ESO, lending some support for the cycle of control thesis. For PS, unemployment is not important as a determinant except for a negative association in 1999/2000. An explanation for the mixed results could be that, in contrast to PS, employers implement ESO less for immediate incentive effects, but more for long-term commitment and retention purposes, highly relevant in tight labour markets. There is little research done on the attractiveness of ESO relative to PS for job seekers; however, job seekers may be more attracted to ESO than PS due to the combination of monetary and non-monetary elements of employment where ESO, in contrast to PS, offers some elements of limited control rights by providing insights into how the company is performing via financial reporting.

Regarding controls, organizational performance in terms of gross revenue is positively associated with ESO, but not with PS, though the effect-size is small. The GDP measures reflect the relationship of ESO with economic development. GDP in the periods after economic downturn is negatively associated with the incidence of ESO; and similarly for PS for 1999/2000 only. Regarding the other controls, industry differences are important. Banking and finance and the chemical industry are important determinants for ESO, while industry differences are less important for PS.

As expected, size matters for both types of financial participation, and being listed on the stock market is obviously a determinant for ESO.

5 | DISCUSSION AND CONCLUSIONS

Our study provides evidence that companies adopt financial participation as part of either commitment or control versions of HRM. The literature is starting to make this distinction: Caramelli and Carberry (2014) found that organizational commitment was positively related to employee preferences to invest in company stock, while Pendleton (2010) found a negative association between affective commitment and financial participation, interpreting this as the result of stronger financial orientation towards the share-plan by both employer and employee. The scenarios can be interpreted as two pathways to performance: an involvement-orientation/commitment path and a financial-orientation/control path.

However, the study provides evidence that over time HRM strategy is less important as a determinant than contextual factors, such as country and industrial relations. To the extent that financial participation is taking place because of institutional pressures for conformity, this reduces the 'space' for an organization's strategy or other organization-level characteristics to have an effect (Long and Fang, 2015). Research relating HRM to outcomes needs to address context more than it does, since the independent role of context can both enable and constrain the development of practices and the outcomes of these practices (Delbridge and Keeney, 2010).

We also found that country is a strong determinant of the incidence of financial participation, reflecting large variance between nation states, supporting the divergence perspective. The UK (mainly for ESO) and France (mainly for PS) stand out with relatively high levels of incidence. Both countries have strong traditions of government-promoting specific financial participation arrangements. Similar traditions can be found in other countries, although with lower support, causing lower uptakes (Lowitzsch and Hashi, 2012). The corollary of this support is that management (and employees) may respond to tax exemptions in certain countries and may not particularly target commitment and control strategies with financial participation and performance, but consider financial participation simply as a possible instrument for employee savings.

There is some support for the cycles of control thesis. Single employer bargaining is related to higher incidence of PS and multi-employer and hybrid bargaining seems to be relevant for ESO in the booming periods. In addition, earlier than 2015/2016, higher incidence of ESO tends to relate to tight labour markets. Following the cycles of control thesis, employers may react with more flexibility in reward systems to align the interests and commitment of employees to the organization as a reaction to more power of labour, that is regulation through collective agreements and tied labour markets.

While commitment HRM was mainly a significant determinant for ESO in the booming periods of 2005/06 and 2015/2016, control HRM is a significant determinant of ESO largely throughout the whole period. This may question the influence of commitment-focused HRM. Market discipline may drive HRM decisions (Thompson, 2011), and publicly listed firms are increasingly influenced by shareholder value metrics (Appelbaum et al., 2013).

The relationship with diverse economic cycles may also indicate that management and employees may be variously attentive to economic developments, which may explain the greater variation in incidence and development that researchers often note (Kaufman, 2016). When unemployment is low and labour is scarce, employers adjust HRM practices, resulting in improved terms and conditions of employment. Alternatively, during recession and high unemployment, the opposite may

occur. Forde et al. (2006) show how, during high unemployment, the threat of job loss improves employee productivity without participatory work initiatives. Translated into HRM practices, it is likely that commitment HRM practices will be reduced or eroded, moving worker-level HRM outcomes from commitment towards control (Hauff et al., 2014; Lahteenmaki et al., 1998). Cook et al. (2016), for instance, found that recession led to the derailing of a commitment-focused model of HRM in favour of a focus on short-term financial metrics.

The orientation to shareholder value and performance management raises the chance that control HRM and financial participation will become part of 'disconnected capitalism' (Thompson, 2003) creating a disconnect between commitment-focused HRM choices at the firm level and financial performance (Cook et al., 2016). However, ESO may also shield against the most dysfunctional elements of disconnected capitalism. Brown et al. (2019: 78) show that job security, especially, is important as a primary benefit of employee ownership. This finding corroborates other recent research (Heras-Saizarbitoria, 2014; Kurtulus and Kruse, 2017) showing that these firms offer added levels of employment stability, acting as a bulwark against the expectations — especially around job insecurity and alienation — embedded within the disconnected capitalism thesis. Future research could address these issues.

If economic variation alters management's orientation to practices, then the question becomes, simply, how does management exploit heightened labour market power and how will this affect the relationship between commitment HRM, control HRM and financial participation? Literature on cyclically induced HRM policies does not explicitly address this matter yet (Teague and Roche 2014).

Here, our focus has been on the role of HRM strategies and industrial relation factors in relation to institutional factors. The study indicates that change in the incidence of financial participation was partly driven by exogenous factors. Although we included measures of exogenous factors, such as GDP and unemployment, future research could focus on issues, such as regulatory changes (e.g. taxation policies) in certain countries and indicators of social economic developments. In this way, research, and particularly nationally comparative research, may take advantage of the natural experiment environment to estimate the causal impact of such exogenous factors on ESO and PS coverage, especially by using longitudinal panel data.

Our results and conclusions are derived under certain limitations. The study uses a series of cross-sectional survey data that allows for trend studies. Although we weighted the data to improve reliability and representativity of country data per wave, we were confronted with diminishing sample sizes over time although we remedy that as much as possible. Also, panel data could allow for more refined causal inferences of changes in time than we could.

Although we carefully selected core practices and tested the scalability, commitment and control HRM might be examined with more granularity, such as the degree of decision empowerment in commitment or the precise rules in the case of control HRM. Second, we should consider commitment and control as extremes and acknowledge the possibility of hybrid forms, as outlined by Hauff et al. (2014). Third, although we have included a coverage dimension in our key variables, actual participation, rather than eligibility, would enrich the analysis. Fourth, our findings are limited by the data available and obviously data with a wider country coverage collected over a longer time period would have been an advantage. However, this remains the first such multi-country, longitudinal study that there is. While such survey data may help us to compare countries and compare over time, it cannot provide the detailed explanation of motivation and process available from extant case study evidence on financial participation. Our evidence allows us to suggest that explaining financial participation in terms of either commitment or control strategies is too simplistic: clearly, a lot of other factors are in play as well. It seems that conjunctures of strategic

and institutional factors provide the best explanation of the extent and development of financial participation. We look forward to further research, of all kinds, into the way factors conjoin to impact financial participation.

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NOTES

- ¹ A quote from a participant in a workshop on tax incentives for employee share ownership in non-unionized workplaces.
- ² These countries are selected to cover variety in institutional settings.
- ³ There is debate on the use of a single source in organization-level surveys. Huselid and Becker (2000) note that adding raters does not guarantee an increase in accuracy – the critical issue is *who* are the most knowledgeable persons about HRM practices (reliability vs. validity). These senior HRM executives were likely to be the most knowledgeable about the HRM policies and practices.
- ⁴ We created a dummy variable for answers covering more than one establishment and added this as control. The analysis with or without control as well as only covering the respondents with single establishments reveals results that are largely the same.
- ⁵ We used the standard sampling weights method (Stata Release 16, 2019) using clustered estimations for the standard errors. The bootstrapping weighing method (Kolenikov, 2010) replicated out findings for the main effects models. The method, however, resulted in inconclusive standard errors for the full models.
- ⁶ We compared the weighted Cranet data with data from another organization-level dataset, the European Company Survey (ECS) for the years closest to the Cranet wave-years. The ECS ask for the incidence of ESO and PS for employees in general and does not distinguish between personnel categories as Cranet does. Despite these differences, the pattern of distribution of incidence over countries is largely comparable. Also, the average distribution over all countries (ECS, 2013/ Cranet 2015) is almost the same: for ESO, 12.4% in Cranet and 12.3% in ECS; for PS: 50.6% in Cranet and 41.0% in ECS.
- ⁷ Unfortunately, there are no European statistics on public policies regarding ESO and PS.
- ⁸ Although approximating the predicted amount of change in the probability of a dichotomous dependent variable in non-linear models, the calculated marginal effects corroborate the tabulated odds-ratio effects. Authors can, on request, provide tables with the marginal effects and interaction effects.

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APPENDIX 1: Means, scalability of the Control HRM and Commitment HRM practices and the scale's reliability coefficient

	<i>Proportion</i>	<i>Loevinger's H</i>	<i>Reliability analysis** R²</i>	<i>Reliability</i>
Control HRM				
Individual rewards: clerks/manuals	0.431	0.494	0.439	
Individual rewards: professionals	0.512	0.532	0.547	
Individual rewards: managers	0.606	0.446	0.479	
Performance appraisal: clerks/manuals	0.720	0.470	0.515	
Performance appraisal: professionals	0.724	0.529	0.588	
Performance appraisal: managers	0.746	0.520	0.549	
<i>Scale</i>		0.498		
KR20				0.772
Commitment HRM				
Strategy briefing: clerk/manuals	0.532	0.626	0.569	
Strategy briefing: professionals	0.646	0.553	0.603	
Strategy briefing: managers	0.951	0.522	0.310	
Performance briefing: clerk/manuals	0.691	0.499	0.550	
Performance briefing: professionals	0.794	0.257	0.247	
Performance briefing: managers	0.949	0.586	0.354	
Written mission statement	0.762	0.509	0.548	
<i>Scale</i>		0.500		
KR20				0.735

Notes: * Loevinger's scalability coefficient of homogeneity, weighted. All H-coefficients are significantly different from zero at the 0.001 level.

**Krugger-Richardson (KR20) is the reliability coefficient of the scale.

APPENDIX 2: Descriptive statistics of the determinants of broad-based financial participation (ESO, PS)(weighted by private organisations 50+ employees by country by year by industry)

<i>Determinants</i>	<i>mean/ percent</i>	<i>stdev</i>	<i>min</i>	<i>max</i>
HRM strategy factors				
HR Manager in board of directors				
none(base)	34.3%			
Yes	63.3%		0	1
missings	2.3%		0	1
HR involved in strategy (base: not consulted)				
consulted	71.0%		0	1
HR policy responsibility ^b	2.723	1.715	0	5
Control HRM ^b	3.932	1.876	0	6
Commitment HRM ^b	5.123	1.799	0	7
Training	30.0%		0	1
Industrial relations factors				
Collective broad-based Bargaining				
no collective bargaining	15.9%			
multi-employer	23.4%		0	1
single employer	30.9%		0	1
hybrid bargaining	29.8%		0	1
Unionisation ^{a,b}	28.859	24.157	0	88
Joint Consultation\Works Council				
none(base)	23.5%			
yes	74.3%		0	1
missings	2.2%		0	1
Control variables				
Country				
United Kingdom (base)	20.5%			
France	15.9%		0	1
Germany	35.7%		0	1
Sweden	3.5%		0	1
Denmark	2.6%		0	1
The Netherlands	5.9%		0	1
Norway	1.9%		0	1
Switzerland	3.8%		0	1
Finland	1.8%		0	1

<i>Determinants</i>	<i>mean/ percent</i>	<i>stdev</i>	<i>min</i>	<i>max</i>
Greece	1.7%		0	1
Austria	3.5%		0	1
Belgium	3.0%		0	1
Year				
2000	23.1%		0	1
2005	23.8%		0	1
2010	26.3%		0	1
2015 (base)	26.8%			
Gross domestic product (thousands \$ ^b)	38.891	5.325	23.517	60.047
Unemployment rate ^b	7.348	2.587	2.700	26.55
Industry				
Construction	7.5%		0	1
Transportation	9.9%		0	1
Banking and finance	1.7%		0	1
Chemicals	4.1%		0	1
Other industries (eg services)	44.7%		0	1
Manufacturing (base)	32.0%			
lnSize (log)	6.492	1.369	4.605	13.473
Listed Stock Exchange (base: not indicated)				
indicated	63.0%		0	1
Multinational (base: National)				
multinational	53.8%		0	1
Gross revenue	4.851	1.287	1	6
Organisation Response Type (base: single establishment level)				
Multi-establishment	28.8%		0	1
Type missing	5.2%		0	1
N=	8065			

Notes: (a) using midpoints class intervals, (b) uncentered

APPENDIX 3: Correlation coefficients* of the main determinants and broad-based financial participation (excl. control variables) (weighted by private organisations 50+ employees by country by year by industry)

	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Multi-employer only	1												
2 Single employer only	-0.370	1											
3 Hybrid Bargaining	-0.360	-0.436	1										
4 Percentage unionization	0.106	-0.157	0.190	1									
5 Joint consultation\ works council yes	0.085	-0.074	0.187	0.243	1								
6 HR in board of directors yes	-0.023	-0.002	0.003	0.025	0.096	1							
7 HR involvement stage consulted	-0.019	0.024	0.022	0.028	0.045	0.273	1						
8 HR policies responsibilities	-0.068	0.078	-0.003	-0.061	0.039	0.177	0.120	1					
9 Control HR	-0.175	0.073	0.066	-0.145	0.003	0.121	0.120	0.116	1				
10 Commitment HR	-0.056	-0.015	0.064	0.075	0.062	0.146	0.278	0.057	0.255	1			
11 Training	-0.039	-0.021	0.056	-0.012	-0.052	0.015	0.040	0.010	0.108	0.137	1		
12 ESO broad-based	-0.067	0.059	0.012	-0.048	-0.025	0.062	0.095	0.055	0.130	0.149	0.035	1	
13 PS broad-based	-0.046	0.030	0.013	-0.097	0.126	0.093	0.032	0.041	0.115	0.031	-0.008	0.098	1

Note: *significant $p < 0.05$ if coefficients $\geq |0.0219|$; $N = 8065$.