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Employee workplace representation in Belgium: effects on firm performance

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Abstract

Purpose – The purpose of this paper is to examine whether works councils (WCs) in Belgium have a positive effect on firm performance, notably productivity and profitability, while taking the role of trade unions into account.

Design/methodology/approach – The authors first introduce the typical Belgian industrial relations system, discussing the similarities and differences with neighboring countries. This is followed by a brief overview of the relevant literature. Subsequently, the impact of Belgian employee representation on firm performance is estimated by means of OLS, using a newly developed questionnaire administered among Belgian CEOs. Special attention is given to moderating and mediating effects.

Findings – The authors find that Belgian WCs have a small (direct) significantly positive effect on labor productivity, but not on profitability. The additional results of the mediation test show tentatively that WCs might affect profitability indirectly, through their impact on productivity. Despite trade unions' dominance in practice, the findings reveal that their impact is insignificant.

Research limitations/implications – Although nationwide, rich and representative, as well as statistically valid, the data set is rather small (196 usable observations). The data set offers ample opportunities to further explore what makes effective Belgian WCs different from their non-effective counterparts.

Originality/value – The data set is unique, and combines subjective CEO with objective performance data. The data offer the opportunity to do a first study into the special case of Belgium, which has a distinct union-dominated IR regime. In this study, the focus is furthermore on the rarely studied WC-trade union interaction. In addition, subtle moderation and mediation effects are estimated.

Keywords Productivity, Belgium, Profitability, Industrial relations systems, Worker representation

Paper type Research paper

1. Introduction

In the greater part of Continental Europe, employee workplace representation is characterized by the incidence of both trade unions and (mandatory) works councils (WCs). Only in Germany, Austria and the Netherlands, WCs are evidently more important than unions at the establishment level; in most other countries, the WCs are either dominated by unions, or they are considered to be complements (Van Gyes, 2006, p. 65). An important underlying justification to give employee representatives a voice via WCs is that this promotes worker commitment and effort, hence benefitting the firm at large. By far, most empirical research in the industrial relations (IR) literature on the economic effects of WCs stems from Germany (for an overview, see Addison, 2009 and Jirjahn, 2010), modestly followed by a handful of Dutch studies on this issue (Sapulete *et al.*, 2011,

Van den Berg *et al.*, 2011a, b). Although results for these two countries are mixed, researchers currently tend to find a positive connection between WC presence and several firm performance indicators such as labor productivity and employment growth.

By contrast, hardly any quantitative studies exist in most other countries with a long WC tradition. This might be attributed to the fact that the role of unions is considered to be of more importance in these countries. Looking at France, we have encountered only one article (written in English) in which the effects of WC presence have been estimated, which were found to be insignificant or even negative (Fairris and Askenazy, 2010). In Belgium, several studies have paid attention to the effects of "social dialogue" at large (Sels *et al.*, 2006; Theunissen and Ramioul, 2005), but none of these focus on the specific economic impact of WCs viewed apart. Given the high incidence of WCs in both France and Belgium (Aumayr *et al.*, 2011), this clearly calls for more research into their economic effects.

We contribute to the literature through our focus on the under-examined country case of Belgium, which is theoretically interesting because, contrary to prevailing studies in this area, Belgian WCs are clearly dominated by unions, which might downplay the influence of the former. According to French (2001, p. 560), "The relationship between works councils and trade unions remains, however, relatively under-researched." And the main question usually is whether the presence of WCs affects the functioning of unions (Brewster *et al.*, 2007), and not the other way around, which is what we seek to explore here.

We use a self-constructed questionnaire administered among Belgian CEOs, with the specific aim to investigate the role of WCs, notably their impact on labor productivity and profitability, in the interplay with unions. We empirically estimate the economic effects of Belgian unions and WCs for the very first time. Thanks to our unique data set, and contrary to most other existing empirical work, we could combine the "subjective" answers of the CEOs with a series of objective performance measures taken from a national database, because the firms of the respondents were known to us. In contrast to the above-mentioned French study, we do find a (modest) significant positive effect of Belgian WCs, despite the presence of strong politicized unions. Explanations for our findings relate to the peculiar IR system of Belgium. In so doing, we bring in more nuances in the literature by showing the effects of HRM practices related to worker voice in a different IR regime.

Section 2 elaborates on the typical Belgian system of workplace representation, and how this relates to (or deviates from) the systems in the neighboring countries that also have WCs in place. Section 3 provides a brief overview of the extant literature, in which we focus on the empirical findings of the few Belgian studies that touch upon the topic. Section 4 describes the data set and the applied econometrics, before we turn to the estimation results in Section 5. Section 6 concludes with a discussion.

2. Workplace representation in Belgium in comparison to its neighbors

In the varieties of capitalism approach by Hall and Soskice (2001), the continental (West) European countries, including Belgium, are considered to be coordinated market economies (CMEs), in which workers enjoy more prerogatives than in the liberal market economies. In the ideal-type CME, investment in human capital is highly prioritized. At the meso-level, this is supported by concluding collective labor agreements with (non-radical) unions that are often extended to all firms in the sector, creating a level playing field. At the micro level, this is complemented with assigning participatory rights to worker representatives (in WCs) concerning employment and working conditions. Although this qualification is correct to a certain degree, it does not do justice to the actual differences that exist among these countries. When trying to categorize the IR system of Belgium and the ones of its direct neighbors, we observe a checkered array of system differences on which existing literature is ambiguous (or silent).

Visser (2009) classifies Belgium in the same group as Germany and the Netherlands because they share a neo-corporatist welfare regime, social partnership in IR and a dual

worker representation system. By contrast, Van Gyes (2006) concentrates on the divergent dual channel systems at the workplace level: since Belgian IR are dominated by unions, whereas in Germany and the Netherlands the WC dominates over the union, they fall into different categories. Altmeyer (2005) also separates Germany and the Netherlands from Belgium, arguing that the latter fits into the so-called "French cluster" of countries. Here, worker representation bodies are dominated by active and politicized trade unions. Both France and Belgium can be characterized by workers' inclination to go on strike (which is a legal right) and by employers' inclination to take up a unilateral and patriarchic stance. On the whole, this more problematic relationship between workers and employers implies that also on the level we focus on here, the workplace level, there is less tendency to compliance and general consensus building. This, in turn, may hamper the influence that workers could have on company policies and on firm performance, an argument we will elaborate on further in Section 3.

Comparing the legal rights of worker representatives in Belgium, France, Germany and the Netherlands, both similarities and differences can be identified. In all four countries, having a WC in an establishment is mandatory beyond a certain worker threshold[1]. At the same time, Directive 2002/14/EC (hereafter referred to as "the Directive") provides a minimum level of information and consultation rights for employee representatives at the workplace level in all EU member states. However, where Germany and the Netherlands substantially exceed these minimum requirements, Belgium and France stick more closely to the lower limit. This implies that WCs in Germany and the Netherlands enjoy much more extensive advisory rights than their counterparts in Belgium and France, and on top of that have been granted co-determination rights, which are virtually absent in the other two countries. Moreover, in Germany and the Netherlands, the WC is a pure worker body, whereas Belgian and French WCs are presided over by the employer. In Belgium, the council even consists of employer delegates up to one half of the number of seats (European Commission, 2008).

Another large difference between the two country pairs is the position of the unions at the workplace. In Germany, unions play no role whatsoever in the establishment; in the Netherlands, their role is very modest. In contrast, in French and Belgian firms, unions are much more influential than WCs, even though the union density rate in France is very low (less than 10 percent of the active labor force), compared to the rather high rate in Belgium (a little over 50 percent of the active labor force) (Visser, 2011, p. 26). Because they have the right to be active at the firm level, they stand in close contact with the workers (Van Ruysseveldt and Visser, 1996). The power of the – politically engaged – trade union movement in these two countries is related to the legal (bargaining) rights they enjoy in combination with their readiness to call strikes (Altmeyer, 2005).

In Belgium, for all companies over 50 employees, so-called Committees for Prevention and Protection at Work (CPPWs) are mandatory, while the larger 100+ companies have to erect a WC as well (Rigeaux, 1982). Both types of bodies enjoy information and consultation rights. Sometimes, no CPPW or WC is established, due to a lack of candidates. In many establishments, trade union delegations are active as well, their main function concerning aspects of bargaining. In contrast, by seeking social dialogue, WCs and CPPWs do not negotiate, but have a purely deliberative role. In line with the Directive, Belgian law specifies a wide range of items regarding which the employee representation body needs to be informed, relating to social and financial-economic issues (Steyaert *et al.*, 2009). The employer must provide this information in good time in order to enable the worker representatives to act on this before it is too late. The employee faction of the Belgian WC has the statutory right to be always assisted by an external auditor, who can judge whether this information meets the legal requirements of completeness and fairness (De Beelde and Leydens, 2002; Van Gyes, 2011). From their comparison of information rights in actual practice, Hall and Purcell (2011, p. 15)

infer that "Belgium provides a unique case of very high levels of information provision," which they partly attribute to the role of this external auditor.

The CPPWs may give advice on social matters, whereas the WCs' rights extend to financial-economic issues as well. As a consequence of the implementation of the Directive in 2008, in as far as organizations lack a WC but do have a CPPW, the latter body has been endowed with a part of the information and consultation rights of WCs. The consultation rights of Belgian WCs seem to be less extensive than those of their Dutch and German counterparts, although by law the Belgian WCs also need to be consulted in the case of restructuring policies. Belgian expert jurists themselves state that "the specific gravity of the Belgian WC is limited" (Steyaert *et al.*, 2009, p. 35). They attribute this to the fact that Belgian law does not enforce employers to take the WC's advice into account in their decision-making, contrary to Germany and the Netherlands, where the law endows the councils with a strong right of appeal.

In comparative European legal overviews (European Commission, 2008; Fulton, 2013), Belgium is often mentioned as one of the countries where WCs also have co-decision rights. However, if we look more closely into the details, these rights are much less extensive than in Germany and the Netherlands. In Belgium, just as in France, the right to co-decide is only granted with respect to a few specific social issues, mainly in the field of leisure (holidays, social benefits such as sport facilities and canteen facilities).

With respect to the role of Belgian unions, the law explicitly expresses that the right to bargain and to sign collective agreements is reserved for recognized unions (Van Gyes, 2006). In addition, the union delegation has the exclusive right to nominate their own members as candidates for the WC. In practice, this often implies that many worker representatives are wearing two hats, especially in smaller establishments: they sit in the WC and in the union delegation at the same time (Fulton, 2013). And even if this is not the case, the WC's employee members are subordinate to the trade union delegates, as the latter are exclusively entitled the right of appeal against employer's decisions, of handling employee complaints, and of actively monitoring the observance of the law and collective agreements (Van Ruysseveldt and Visser, 1996). According to Rigeaux (2000, p. 14), this may have an adverse effect on the employer's provision of information to the WC. Indeed, more often than their Dutch or German counterparts, Belgian employers tend to resort to their legal right of demanding confidentiality from the WC. They may even withhold financial-economic information, by referring to pressing competitive reasons (Steyaert *et al.*, 2009, pp. 240-241).

3. Theoretical perspective and empirical evidence
Theoretical notions
Although most empirical work on the effects of worker representation in the IR literature concerns the German context (Addison, 2009; Jirjahn and Smith, 2006; Mueller, 2011), theoretical notions concerning the – potential – impact of worker representation on firm performance originate in the Anglo-Saxon world. Building on the seminal study by Hirschman (1970) on exit and voice, Freeman and Medoff (1984) and Freeman and Lazear (1995) extend his ideas by arguing that representation by either unions or WCs endows employees with an effective means to collectively defend their interests, which could be advantageous for employers as well. The underlying mechanism at work is that the representative body could step forward on behalf of its constituencies, and express both their grievances and valuable suggestions on improving the workplace or working methods. The WC has the ability to enhance job security, which in turn may motivate employees to take a long-term view, being more eager to invest in firm-specific skills and committing themselves to the well-being of the organization. Ideally, if employees feel well represented by a WC, their increased commitment to the firm leads to favorable outcomes in terms of both work satisfaction and job security, and in terms of productivity and/or profitability.

For a long time, the mechanisms through which employee workplace representation affect firm performance have not been extensively studied in the IR literature. Recently though, a few doctoral dissertations have shed more light on this important issue, specifically by using insights from other social sciences. For instance, Sapulete (2013) focuses on the role of individual Dutch WC members, how their position in the social network of the firm matters, in combination with the behavioral tactics they use to influence management. Van der Brempt (2014) studies Belgian WCs, showing that the degree to which the backgrounds of the WC members differ (i.e. socialist, Christian or liberal, on the one hand, and educational differences, on the other hand) can hamper trust and hence cooperation between worker representatives and managers; this, in turn, is hypothesized to affect firm performance negatively. Finally, from an HRM perspective, there is an interesting European cross-country study by Gooderham *et al.* (1999), who "show that institutional determinants, as indicated by the national embeddedness of firms, have a strong effect on the application of [...] human resource management practices" (p. 507), including unions and WCs.

Economists are, however, not blind for the possible downsides of involving workers either, and typically perform a cost-benefit analysis, in which the aforementioned upsides are weighted against the downsides (Kaufman and Levine, 2000). The largest disadvantage lies in the possibility that endowing workers with legal rights may create a context in which workers are able to appropriate a disproportionately large part of the firm's proceeds at the expense of shareholders (Freeman and Lazear, 1995). Whether or not this may indeed happen, is also dependent on the specific institutional setting: Which accompanying values, rules and regulations are in place that lead both workers (and their representatives) and management to behave in such a way that their actions benefit all parties involved?

In the IR literature, the main theoretical arguments, as set out above, have been translated into testable hypotheses for the purpose of empirical studies into the impact of employee representation on organizational performance, for which several indicators are considered. As our study focuses on the effects of worker involvement on labor productivity and profitability, respectively, we will only relate to these two performance variables. First, for labor productivity, a well-functioning employee representation body is expected to have a positive effect. This is not only because worker involvement will encourage employees to become dedicated to their firm, which stimulates higher effort and hence higher productivity, but also because the regular consultations between workers and management may provide the latter with useful bottom-up information that can be applied to enhance efficiency. For the German setting, this positive relation between WC presence and productivity is frequently supported by empirical evidence (Addison, 2009)

Second, regarding profitability, the theoretical expectation is not so straightforward, and empirical evidence is much more mixed (Addison, 2009; Mueller, 2011). On the one hand, if an employee representation body can motivate personnel to put more effort into the firm, the resulting increase in productivity could affect profits positively. On the other hand, if the employee representatives would be able to increase wages or would abuse their prerogatives – e.g. by delaying the decision-making process and engaging in rent-seeking behavior (e.g. by defending employment at all costs) – then this could impact profitability negatively. Taken together, the net effect of employee representation on profitability is unclear a priori.

A few additional relevant aspects have to be taken into account, since we are studying Belgium. First, the Belgian WC consists of both employee and employer delegates. Intrinsically, these factional groups may well have divergent interests, which in turn might have an adverse effect on trust and cooperation, and hence on the effectiveness of representative participation (Van der Brempt *et al.*, forthcoming). Further, given the particular jurisdiction under consideration, workers and their representatives have a specific set of legal

rights, which impact the degree in which they can play a role in determining firm performance. This includes the issue as to how the roles and representation rights are allocated across the trade union and WC, inter alia. In addition, the singular Belgian IR system in which parties' willingness to cooperate seems to fall short every now and then, could also leave a mark on the effectiveness of worker participation at the workplace level.

Empirical evidence for Belgium
We are not aware of any econometric research on Belgium that specifically tests for the relationship between worker involvement (be it WCs or union delegates), on the one hand, and any indicator of firm performance, on the other hand. However, a few quantitative Belgian studies do touch upon the topic. The one that comes closest to the type of work we are interested in is Sels *et al.* (2006). In their study of firms with 10-100 employees in all sectors of the Belgian economy, there is one constructed variable ("HRM intensity") that is composed of a set of HRM tools, among which a cluster of three participation measures: trade union representation, direct participation and financial participation. The argument is that when workers are allowed to have a say in any way, in companies that are legally not obliged to do so (due to their small size), this must have been introduced by management on purpose so as to motivate workers, which in turn will enhance productivity directly and, through a lower voluntary quit rate, also indirectly. Higher productivity, in turn, will have positive effects on profitability. The study only reports direct positive effects, both of HRM intensity on productivity and on profitability. Since the aspect of worker voice is only a relatively small part in the constructed HRM variable (three out of the 18 components), we cannot draw strong conclusions regarding the impact of worker involvement on firm performance.

A second noteworthy study is by De Weerdt *et al.* (2005), who estimate the effects of worker voice on workplace conflict and job satisfaction in small and medium-sized Belgian enterprises. Only in the minority of companies is a union present, but here the extent of information exchange and consultation activities is much higher. In line with our interpretation of Sels *et al.*'s (2006) findings, the study reveals that, if there are possibilities to have a say in any way, this has a strong subduing effect on workplace conflict, and a significantly positive effect on job satisfaction.

Theunissen and Ramioul (2005) conducted a large survey regarding "social dialogue" and HRM practices in Flanders in 2002. They find a strong, significantly positive effect of union presence on HRM instruments such as job posting and the use of objective evaluation criteria. However, after additionally including a dummy for the presence of a WC or a CPPW, the effect of these worker representation bodies turns out to be negative. The authors attribute these findings to the possibility that a strong trade union delegation enforces management to introduce worker-friendly HRM policies, but the simultaneous presence of a joint body of employees and managers could partly serve as a counterforce.

Related evidence may be found for France, as the Belgian system of labor relations resembles the French system. In both countries, the WC has fewer legal rights and is chaired by the employer; and in both countries, unions are much more influential than in the Germanic countries. Research by the European Trade Union Institute (2011), in which Belgium and France are included in the group of EU member states with weaker worker participation rights, demonstrates that this country cluster scores lower on macroeconomic performance indicators such as GDP, employment rate and labor productivity. In the French study by Fairris and Askenazy (2010), in most model specifications, no significant effect of WC presence on productivity is found, while a significantly negative effect is reported in a few specifications. Their presumption that especially WCs in a unionized environment (operationalised by including an interacting effect of WC presence with union presence) would enhance productivity could not be confirmed, as these moderator effects turn out to be negative and insignificant.

We are certainly not claiming that the Belgian and French labor relations systems are identical. Each country is unique. In the above, we stressed the similarities between the two. However, they differ, for instance, in terms of union density rate, with French WCs being much less aligned with unions than their Belgian counterparts (Fairris and Askenazy, 2010). Still, we follow the classification by Altmeyer (2005) and argue that, comparatively speaking, IR in both Belgium and France tend to be rather tense. From that perspective, the fact that the French study mostly showed insignificant effects on productivity of WC presence, whereas the German studies usually point at a significantly positive impact, may be an indication for what to expect as to the direction of the findings in the Belgian case. Given that Belgian IR are characterized by relatively modest legal rights of WCs, which are dominated by politicized unions and in which workers sit jointly with employer's delegates, a priori we do not expect a very large effect of WCs on productivity or profitability, if at all. However, since there is hardly any comparable empirical material for Belgium, we have to let the data speak for themselves.

4. Data and estimation strategy

Halfway through 2011, CEOs (or their representatives) of Belgian private firms across the country and across all industries were approached with a survey containing all sorts of questions about their type of firm, the functioning of the board of directors, and the characteristics of the social dialogue inside their establishment. While some questions were purely factual, many others were more subjective in nature. In total, 1,128 firms were approached, of which 268 CEOs responded. After discarding the 35 respondents who appeared to be active in the public sector, we ended up with 233 usable observations, implying a gross response rate of about 20 percent. The firms these CEOs represent range from very small establishments of around ten employees to very large ones of up to over 2,000 employees. Our sample hardly deviates from the population with respect to geographical dispersion. Flanders is slightly overrepresented, whereas Brussels is slightly underrepresented[2]. With respect to industry, manufacturing companies account for 50 percent, against 43 percent in the population. Trading firms make up 26 percent, both in the sample and in the actual population. Services are somewhat underrepresented. Results also indicate that the sample does not differ from the population in terms of total assets ($t = 1.13$, $p = 0.26$) and return on assets ($t = 1.21$, $p = 0.23$).

In order not to overtax the respondents, hardly any questions were included regarding factual firm characteristics. As we knew for each respondent to which firm h/she belonged, we were able to find information for these firms in the national data set "Belfirst," such as the number of employees, percentage of part-time workers, and capital intensity. The ones that we used as control variables stem from the Belfirst data set concerning the accounting year 2011 (the year of our questionnaire), while the two dependent variables, productivity and profitability, are from the Belfirst 2012 data set.

Sample description
We have constructed models with the purpose of estimating the effects of the incidence of a consultation body (set against firms without such a body) on labor productivity and profitability. Due to the chosen model specifications, our final model contains 196 observations (implying a net response rate of about 17 percent). We not only lose some observations due to missing values, but we also discard a handful of outliers for the variables labor productivity, return on total assets (ROA), capital intensity and labor turnover[3].

The descriptives are reported and briefly explained in Table I. Multicollinearity is not an issue[4].

Our first dependent variable is the log[5] of labor productivity, defined in Belfirst as gross value added per employee (in full-time equivalents). The second dependent variable

Variable	Mean (SD)	Explanation
Dependent variables		
Log labor productivity 2012 (*B*)	4.343 (0.482)	Gross value added per employee (in full-time equivalents)
ROA 2012 (*B*)	5.452 (11.800)	Profitability, measured by return on total assets
Worker representation		
Works council	0.806 (0.396)	= 1 If a works council is installed or, in the absence thereof, if the firm operates with a CPPW
Union density	40.660 (38.572)	Percentage of unionized employees in the firm
Dummy union	0.383 (0.487)	= 1 if union density unknown
Firm and sector characteristics		
Log total number of workers (*B*)	4.750 (0.968)	Log of total employees in the establishment
Manufacturing	0.418 (0.495)	Percentage of respondents in manufacturing
Building industry	0.112 (0.316)	Percentage of respondents in building industry
Services (reference sector)	0.469 (0.500)	Percentage of respondents in services
Innovativeness	2.546 (1.039)	On a five-point scale, where 1 = focus on longstanding products, and 5 = focus on R&D, innovation and technological leadership
Log capital intensity (*B*)	2.895 (1.554)	Log of tangible fixed assets divided over the number of full-time equivalents
Personnel characteristics		
% white-collar workers (*B*)	0.489 (0.311)	Percentage of white-collar workers in the establishment
% part-time workers (*B*)	0.170 (0.162)	Percentage of part-time workers in the establishment
HRM characteristics		
Merit pay	0.658 (0.476)	= 1 if the firm has performance-related pay for any class of employees
Degree of bureaucracy	3.923 (1.081)	On a five-point scale, where 1 = very few rules and procedures, and 5 = most activities subject to rules and procedures
Workers receiving training (*B*)	0.637 (0.504)	Average number of workers that receive training. This can be more than once per year
Turnover rate (*B*)	0.014 (0.088)	Relative change in full-time equivalents in 2011 as compared to 2010
Number of observations	196	

Source: CEO data set, except *B* = taken from Belfirst data set; All independent variables relate to the year 2011

Table I.
Variable definitions
and descriptive
statistics

concerns profitability, as measured by ROA. As both are continuous variables, we performed straightforward OLS estimations. Because we could use the more recent 2012 version of Belfirst for these two dependent variables, we are able to circumvent – at least for a considerable part – the ever-looming problem of reverse causality – i.e. whether WC presence leads to higher firm performance, or whether higher firm performance leads to a higher incidence of WCs[6]. We include a wide range of control and independent variables, grouped into the following categories: worker representation, firm and sector characteristics, personnel characteristics and HRM characteristics.

Our key explanatory variables relate to worker representation. We include WC presence and union density. WC presence takes the value "1" when a WC is installed or, in the absence thereof, if the firm operates with a CPPW instead. In our sample, 81 percent of all firms have a consultation body. Union density is only known for 121 out of the 196 firms, with an average of 41 percent (hence, a slight underrepresentation as compared to the actual population). We included a dummy variable taking value "1" if the density rate is missing so that we can still perform our analyses on 196 observations (Kantor and Fishback, 1995).

Our list of control variables is in line with the IR literature (Addison *et al.*, 2001; Jirjahn and Smith, 2006; Mueller, 2011). Regarding firm and sector characteristics, we could include: the log of total number of workers; manufacturing and building industry; the degree of innovativeness; and the log of capital intensity. With respect to personnel characteristics, we were only able to add the proportion of white-collar workers and the proportion of part-time workers. Education level of each worker correlates much too strongly with the percentage of blue- and white-collar employees, while gender correlates strongly with part-time work. We ran models with the proportion of temporary agency workers and workers with tenure included, but these failed to contribute to the goodness of fit, without having an effect on the pattern of results (available upon request).

Finally, in the domain of HRM characteristics we could include, first, whether or not the firm has merit pay for any class of employees. Second, the degree of bureaucracy was taken on board, measuring to what degree a firm has many formal procedures and regulations. Third, we have information about the average number of workers receiving training. Finally, we add the employee turnover rate, defined as the relative change in full-time equivalents.

Moderation and mediation effects

We estimate a moderation and a mediation effect. First, following Fairris and Askenazy (2010), WCs might be more effective in a unionized environment. This suggests WC – labor union moderation. Second, as explained by Mueller (2011), powerful WCs may be able to redistribute rents to their advantage, thereby decreasing firm profits. Alternatively, when their actions lead to a relatively stronger increase in productivity than in wages, this effect on profitability is reversed. Based on their legal rights, Belgian WCs are not that powerful. Hence, there might very well be no direct effect of WCs on firm profits. In line with Sels *et al.* (2006), this effect could run through labor productivity instead. WC presence may stimulate the organizational commitment of employees, which enhances productivity. This rise in productivity, subsequently, may fuel profitability. This logic suggests mediation (Preacher and Hayes, 2004).

5. Estimation results

Productivity and moderation

Table II presents the findings of our model explaining (log) labor productivity. We will only discuss the most noteworthy results concerning our key explanatory variables. The overall goodness of fit, as measured by the adjusted R^2, is reasonable. Furthermore, all control variables have the expected sign, the majority being significant.

Column (1) contains all the variables as described above, excluding the interaction term. The WC dummy is slightly significant, suggesting a positive effect on labor productivity. This contradicts with the French finding, being rather more in line with German and Dutch results. Having a consultation body in Belgium (modestly) raises productivity, *ceteris paribus*. This suggests that Belgian WCs and CPPWs have a small favorable impact on firm performance. A possible explanation could be related to their extensive information rights, which enables the worker representatives to effectively communicate topical issues to their colleagues on the shop floor. The second indicator of worker involvement, union density, does not produce a significant estimate.

In Column (2), we include the interaction term for WC and union density to approximate the estimation by Fairris and Askenazy (2010). However, just like them, we do not find such an effect. In Columns (3) and (4), we try two specifications in which we successively drop the WC dummy and the union density variable, but neither variable turns significant when leaving the other one out. This result seems to contradict Theunissen and Ramioul (2005), who report a positive effect of union presence on the use of several HRM instruments,

Explanatory variables	(1)	(2)	(3)	(4)
Worker representation				
Works council presence	0.143 (1.727)*	0.149 (1.589)		0.092 (1.226)
Union density	0.001 (0.554)	0.001 (0.433)	0.001 (0.440)	
Dummy union	0.139 (1.269)	0.140 (1.272)	0.081 (0.775)	
WC×union density		−0.001 (−0.136)		
Firm and sector characteristics				
Log no. of workers	−0.008 (−0.240)	−0.008 (−0.247)	0.003 (0.0878)	−0.006 (−0.174)
Manufacturing	0.200 (2.852)***	0.200 (2.848)***	0.223 (3.229)***	0.211 (3.067)***
Building	−0.029 (−0.279)	−0.030 (−0.288)	−0.015 (−0.148)	−0.008 (−0.0832)
Innovativeness	0.050 (1.759)*	0.051 (1.758)*	0.047 (1.656)*	0.050 (1.740)*
Log capital intensity	0.066 (3.564)***	0.066 (3.547)***	0.069 (3.703)***	0.066 (3.547)***
Personnel characteristics				
% white-collar workers	0.536 (4.978)***	0.537 (4.966)***	0.550 (5.092)***	0.564 (5.398)***
% part-time workers	−0.774 (−3.893)***	−0.775 (−3.885)***	−0.728 (−3.677)***	−0.746 (−3.769)***
HRM characteristics				
Merit pay	0.081 (1.262)	0.081 (1.260)	0.091 (1.419)	0.084 (1.307)
Degree of bureaucracy	0.037 (1.379)	0.037 (1.373)	0.034 (1.265)	0.037 (1.392)
Workers receiving training	0.111 (1.833)*	0.111 (1.824)*	0.114 (1.863)*	0.102 (1.695)*
Turnover rate	0.623 (1.944)*	0.619 (1.925)*	0.614 (1.909)*	0.622 (1.942)*
Constant	3.348 (15.48)***	3.345 (15.32)***	3.419 (16.01)***	3.443 (18.20)***
Observations	196	196	196	196
Adjusted R^2	0.356	0.352	0.349	0.355

Notes: *t*-Statistics in parentheses; *$p < 0.1$; **$p < 0.05$; ***$p < 0.01$

Table II.
Results of model
explaining log labor
productivity

which is suppressed when a WC is added to their model. One possible explanation is that their measure of trade union influence is better than ours. After all, we have missing values for union density in 38 percent of our observations, for which we correct by entering an additional dummy. Another reason why we do not find anything here could be attributed to the fact that we only find a small significant effect of the WC to begin with in our basic model (in statistical terms).

Finally, we ran a few robustness checks (available upon request). First, we also looked at the effect of a few more moderators, related to our HRM variables. It could be reasoned that a WC operating in a firm that is less bureaucratic, stimulates people through merit pay, provides extra training or is more geared to innovative practices, has a positive impact on productivity. However, none of these interaction terms turned out significant. Second, leaving out or adding other variables to this basic model does not change the pattern of results. For one, we estimated the same model without the variable log number of workers and we found that the outcome of the model remains the same. Apparently, firm size as measured in number of workers is neither a determinant of labor productivity, nor a moderator for the WC dummy, as the associated interaction term does not produce a significant outcome.

Taken together, our findings seem to confirm our earlier formulated conjecture that, compared to countries with relatively strong legal rights for workers, the effect of Belgian WCs on firm productivity is likely to be modest.

Profitability and mediation
Additionally, we have estimated the effect of WC presence on profitability, measured as ROA. The results (available upon request) were very meager indeed. In short, we could not establish any direct relationship between WC presence and profitability. This suggests that

the previously established positive effect on productivity does not hold for profits in the Belgian context; instead, the theorized negative effect of WCs' rent-seeking behavior or delaying decision-making may play a role. Alternatively, however, it could be the case that there is an indirect (positive) effect of WCs on profitability, running through the direct effect on labor productivity.

To examine whether or not WCs affect labor productivity, which in turn impacts profitability, we apply Preacher and Hayes' (2004) method with the aid of Stata. The results can be found in Table III, followed by the interpretation.

Column (1) shows the direct effect of the WC dummy on ROA, which generates a very poor outcome. Almost none of the control variables turns out significant, let alone WC presence. Next, Column (2) is a replica of our first column in Table II, displaying that the direct effect of WC presence on labor productivity is significantly positive, albeit small. Finally, the last two columns show whether, next to a possible direct effect of WC presence on ROA, there also is an indirect effect, running through labor productivity. The result thereof becomes clear from Column (4): by re-estimating the sample 1,000 times (bootstrapping), we obtain interpretable standard errors; in this case, there indeed appears to be an indirect effect, but only at a 10 percent significance level. We infer from this test that we have some evidence of mediation, but it cannot be validated unconditionally.

	(1)	(2) Log labor	(3)	(4)
Explanatory variables	ROA	productivity	ROA	Bootstrapping
Worker representation				
Works council presence	1.245 (0.486)	0.143 (1.727)*	−0.755 (−0.326)	
Union density	−0.0170 (−0.405)	0.000753 (0.554)	−0.0275 (−0.732)	
Dummy union	−1.450 (−0.429)	0.139 (1.269)	−3.385 (−1.115)	
Firm and sector characteristics				
Log no. of workers	−1.291 (−1.289)	−0.00780 (−0.240)	−1.182 (−1.319)	
Manufacturing	3.032 (1.403)	0.200 (2.852)***	0.250 (0.126)	
Building	2.468 (0.782)	−0.0286 (−0.279)	2.867 (1.014)	
Innovativeness	0.272 (0.307)	0.0504 (1.759)*	−0.430 (−0.539)	
Log capital intensity	0.0187 (0.0326)	0.0662 (3.564)***	−0.904 (−1.703)*	
Log labor productivity			13.94 (6.788)***	
Personnel characteristics				
% white-collar workers	1.594 (0.479)	0.536 (4.978)***	−5.881 (−1.853)*	
% part-time workers	2.892 (0.471)	−0.774 (−3.893)***	13.68 (2.393)**	
HRM characteristics				
Merit pay	−0.501 (−0.253)	0.0809 (1.262)	−1.628 (−0.915)	
Degree of bureaucracy	1.489 (1.804)*	0.0369 (1.379)	0.976 (1.314)	
Workers receiving training	1.492 (0.796)	0.111 (1.833)*	−0.0584 (−0.0345)	
Turnover rate	13.53 (1.369)	0.623 (1.944)*	4.856 (0.543)	
Mediation effects				
Indirect effect[a]				2.000 (1.654)*
Direct effect				−0.755 (−0.334)
Constant	1.633 (0.245)	3.348 (15.48)***	−45.03 (−4.944)***	
Observations	196	196	196	
Adjusted R^2	−0.0108	0.356	0.191	

Table III.
Testing for mediation

Notes: [a]Measures the product of the coefficient of works council presence in Column (2) and the coefficient of log labor productivity in Column (3). *t*-statistics in parentheses. *$p < 0.1$; **$p < 0.05$; ***$p < 0.01$

6. Conclusion and discussion

This study focuses on the economic effects of Belgian WCs, which contributes to the existing IR literature that is dominated by German studies. We introduce the IR system of Belgium against the background of existing models of concertation. We specifically compare the Belgium IR system with two other neighboring countries, France and the Netherlands – two other countries with a relatively short and limited research tradition in this field. With reference to the array of IR systems that circulate in the literature, it is difficult to classify Belgium without reservations. Each country has its own peculiarities. Overall, the Belgian system shares most similarities with the French, in the sense that in these two countries there is relatively less social peace, and that representation bodies feature employee and employer factions, are dominated by unions, and not endowed with many legal powers, as compared to Germany and the Netherlands.

In line with the characterization of the Belgian IR system, with a subtle WCs – unions interplay, we find only a modest positive direct effect of WC presence on labor productivity, but nothing on profitability (in terms of statistical significance). There is, however, evidence for mediation: profitability is affected indirectly by WCs through labor productivity. On the other hand, the presence of strong unions does not affect firm performance, neither directly nor as a moderator. It cannot be ruled out, however, that this is due to our imperfect measure of union density, because we know from the study by Theunissen and Ramioul (2005) that unions can have a strong impact. Clearly, more research is needed concerning this important matter. Because we can combine the "subjective" answers of the CEOs with a series of objective performance measures taken from a national database, we are able to circumvent the problem of single respondent bias. The performance indicators are therefore much more solid than is usually the case in, for instance, most German studies. Another often mentioned difficulty in this kind of research concerns the issue of reverse causality: Could it be the case that higher productivity causes higher incidence of WCs, rather than the other way around? One reason why we do not worry too much about this is because all Belgian firms with 50 employees or more are obliged to install a committee or council, which in the majority of cases also happens, mostly because the unions ensure that elections take place. This is reflected in our own data, in which 81 percent of all respondents report the presence of a representation body. Hence, it is rather safe to treat the WC dummy as an independent, rather than a dependent variable. In addition, both our dependent variables relate to 2012, whereas our independent variables are measured in the year before. Unfortunately, we could not test directly for endogeneity because data limitations, such as sample size, do not allow us to run the advanced analyses needed for that.

Based on our findings, we can cautiously conclude that the impact of Belgian WCs on firm performance may be larger that could be expected from the key characteristics of the Belgian IR system. Even though Belgium is not the prototype of a country with smooth employer-employee relationships, our results seem to suggest that the presence of a WC is directly associated with somewhat higher productivity, and indirectly has a slight, significantly positive effect on profitability. Hence, managers may be recommended to maintain and cherish mutual understanding with worker representatives. However, our findings cannot be but tentative, given the weaknesses of our research design, and given that our study is the first of its kind.

Particularly, as most existing empirical studies, we only estimate the effect of the mere presence of WCs on performance. The underlying mechanisms that we described in our theory section are simply assumed to work properly, but they are not really measured. This neglects the fact that, in practice, many employee representation bodies do not function optimally – for instance, due to disinterest or inexperience at the side of the workers, or due to obstructive managers frustrating employee voice. With the current data set, we can further explore the effect of parties' attitudes and mutual relations in determining the influence of representative employee participation (Van den Berg et al., 2011b). In addition,

we can also look into the (effects of the) peculiarities of the Belgian IR system, in which the WC is not only subdivided into workers' and employers' representatives, but in which also the worker representation consists of several factions, based on union membership and functional categories. This enables us to study the effects of group composition and attitudes in a much more detailed way than is usually done.

Acknowledgements

Notes

1. The German case is slightly more complicated, as here workers have the right (and not the duty) to establish a council in establishments with at least five employees. "Hence, works councils are mandatory but do not evolve automatically" (Mueller, 2009, p. 48).

2. Given the potential cultural differences between workplaces in Flanders and Wallonia, we originally also controlled for these regions, but their coefficients turned out to remain insignificant throughout, without affecting any of the other estimators.

3. In a sample as small as ours, a few large outliers have a large impact on the outcome of the models. But dropping outliers reduces our sample size even more. We decided to leave out only those variables with values exceeding three times the standard deviation (both plus and minus), by which, in our final model specification, we only lose eight observations.

4. We also checked for possible correlations between all variables in the final samples, but we found no high values (available upon request).

5. The independent variables number of workers and capital intensity have been log-transformed as well, in each case because of their skewness.

6. In an additional attempt to control for reversed causality, we initially included 2011 log labor productivity as a control variable. The very high correlation coefficient (above 0.9) between the 2011 and 2012 variables made this ineffective, since this turned all remaining explanatory variables into insignificant values.

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