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Article — Published Version

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Transfer: European Review of Labour and Research

Provided in Cooperation with:

WZB Berlin Social Science Center

Suggested Citation: De Spiegelaere, Stan; Vitols, Sigurt (2024) : The European Participation Index (EPI) and inequality: a multi-dimensional cross-national comparative measure of worker participation, Transfer: European Review of Labour and Research, ISSN 1996-7284, Sage, Thousand Oaks, CA, Vol. 30, Iss. 2, pp. 143-160,
<https://doi.org/10.1177/10242589241252412>

This Version is available at:

<https://hdl.handle.net/10419/318336>

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The European Participation Index (EPI) and inequality: a multi-dimensional cross-national comparative measure of worker participation

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2024, Vol. 30(2) 143–160

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DOI: 10.1177/10242589241252412

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Summary

Is worker participation becoming more prominent or less? Furthermore, what is the impact of worker participation on economic performance? This article introduces a tool designed by researchers at the ETUI to help answer these questions: the European Participation Index (EPI), a country-level summary measure of the strength of workers' voice in companies. The EPI is based on (i) union density and collective bargaining coverage, (ii) workplace representation and (iii) board-level representation. This multi-level index provides an alternative to existing cross-national measures by taking into consideration two levels at which worker participation can take place: the workplace and the board. The article shows first that worker participation has become less prevalent in the EU over the past decade; and second that the EPI is robust and has superior explanatory power in relation to income inequality compared with traditional measures of collective bargaining.

Résumé

La participation des travailleurs gagne-t-elle en importance ou diminue-t-elle ? Et quel est son impact sur les performances économiques ? Cet article présente un outil conçu par des chercheurs de l'ETUI pour répondre à ces questions : l'indice de participation européen (IPE), une mesure synthétique au niveau national de la puissance avec laquelle les travailleurs se font entendre dans les entreprises. L'IPE est basé sur (i) le taux de syndicalisation et le taux de couverture des conventions collectives, (ii) la représentation sur le lieu de travail et (iii) la représentation

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au niveau du conseil d'administration. Cet indice à niveaux multiples offre une alternative aux mesures transnationales existantes en tenant compte des deux niveaux où la participation des travailleurs est possible : le lieu de travail et le conseil d'administration. L'article montre que la participation des travailleurs a diminué dans l'UE ces dix dernières années et que l'IPE est un outil fiable et, s'agissant de l'inégalité des revenus, au pouvoir explicatif supérieur à celui des mesures traditionnelles de la négociation collective.

Zusammenfassung

Nimmt die Arbeitnehmerbeteiligung tendenziell zu, oder verliert sie an Bedeutung? Und welche Auswirkungen hat die Arbeitnehmerbeteiligung auf die wirtschaftliche Leistung? Der vorliegende Artikel beschreibt ein von Wissenschaftlern und Wissenschaftlerinnen des ETUI entwickeltes Instrument, das eine Antwort auf diese Fragen gibt – den European Participation Index (EPI), der auf Ebene der einzelnen Länder ermittelt, inwieweit Arbeitnehmer und Arbeitnehmerinnen in ihren Unternehmen die Möglichkeit haben, mitentscheiden zu können. Der EPI basiert auf (i) dem gewerkschaftlichen Organisationsgrad und der tarifvertraglichen Abdeckung, (ii) der Verbreitung von Arbeitnehmervertretung auf betrieblicher Ebene und (iii) der Unternehmensmitbestimmung. Dieser Multi-Level-Index berücksichtigt mehrere Ebenen und ist eine Alternative zu den bestehenden ländervergleichenden Indikatoren, weil er zwei Ebenen berücksichtigt, auf denen die Arbeitnehmerbeteiligung erfolgen kann – den Arbeitsplatz und den Aufsichtsrat. Der Artikel zeigt erstens, dass die Arbeitnehmerbeteiligung im letzten Jahrzehnt zurückgegangen ist, und zweitens, dass der EPI belastbare Daten liefert und Einkommensungleichheiten besser erklären kann als traditionelle Indikatoren der Arbeitsbeziehungen.

Keywords

Economic democracy, worker participation, sustainability, co-determination

Introduction

As outlined in the Introduction to this special issue (Leonard and Taskin, 2024), the role of workers in human resource management and the firm gives rise to a number of key questions. First, what is the general trend? Is there a tendency towards management ‘with workers’, in which worker participation plays a central role, or towards management without them? Second, what is the relationship between worker participation and economic performance: is participation detrimental to the ‘economic’ function of the firm, or can it make a positive contribution? This article aims at making a contribution to the cross-national literature on these questions by introducing a new, multi-dimensional measure of worker participation at the national level, the European Participation Index (the EPI), and illustrating its utility in explaining inequality.

Since the 1980s, measures of the extent to which workers are organised in trade unions and represented by them in collective bargaining have been part of the standard toolkit of cross-country comparative research on economic outcomes (Flanagan, 1999; OECD, 2019). This research was driven initially by an interest in the relations between trade union organisation and wage growth, inflation and unemployment in the context of the debate on ‘corporatism’, that is, the arrangements by which interest groups are involved in the implementation of public objectives.

The strong interest in the relationship between collective bargaining and economic outcomes has led to a proliferation of variables measuring trade union organisation. Kenworthy (2003)

analyses 42 different quantitative measures of corporatism used in studies in the 1980s and 1990s. Simple measures include the proportion of workers who are union members (trade union density, TUD) or represented by unions in collective bargaining (collective bargaining coverage, CBC). More complex measures include the degree of centralisation of union structures (Lange and Garrett, 1985) and the degree of coordination of wage bargaining (Hall and Soskice, 2001). Further refinements include the introduction of non-linearities (Calmfors and Driffill, 1988) and interaction effects (Calmfors and Driffill, 1988).

One of the strongest findings in this literature concerns the relationship between unionisation and inequality. In their review of 39 studies of this relationship, Aidt and Tzannatos (2008: 275) find that high levels of bargaining coordination are consistently associated with lower levels of wage inequality. Other measures of union organisation are less robustly related to inequality. Aidt and Tzannatos argue that this is because centralised bargaining leaves less scope to enable firm- or individual-specific factors to be brought into wage determination. Furthermore, because unionisation is less consistently related to other outcomes, it is the ‘package’ of institutions (or combination of variables) that matters rather than any single variable.

In line with this ‘package’ approach, the OECD (2019) recently developed and tested a multi-category typology of collective bargaining systems. This typology is based on three variables: the level at which bargaining takes place, the degree of centralisation of bargaining, and the degree of coordination in wage bargaining. Not all possible combinations correspond to actual countries, which leaves five actual types of collective bargaining systems. Overall, countries with higher degrees of centralisation and/or coordination are associated with lower wage inequality. The authors argue that this typology explains macroeconomic outcomes better than individual measures of collective bargaining.

Interestingly, this literature has had virtually no overlap with the ‘worker voice’ literature, which has also found significant effects on economic outcomes, including wage inequality. This approach has been pursued primarily at the national level (see, for example, Berger et al., 2019; Holland et al., 2019; Johnstone and Ackers, 2015). Research at the firm and country level has long recognised that collective bargaining is not the only channel through which economic outcomes can be effected. For example, Freeman and Medoff (1985) signalled that workplace representation enables a collective voice in which employees, through representation, contribute to solving workplace problems and increasing productivity. Other studies have suggested similar effects through increased management accountability where representation is present (van den Berg, 2004). At the company level, a number of large-scale surveys make it possible to examine the impact of works councils. In Germany, for example, there is a rich tradition of research on works councils, which are key to influencing a whole range of outcomes, such as training, health and safety, pay inequality and so on (Addison, 2009; Hübler and Jirjahn, 2003; Zwick, 2004). In Belgium, survey research has also shown the benefits of local union presence on vocational training and the application of collective rights (Hermans et al., 2020) and on productivity (van den Berg et al., 2017).

In addition to the workplace level, many studies have found that board-level employee representation (BLER) has significant effects for at least three reasons. First, the presence of employee representatives can improve decision-making by making more information available (Fauver and Fuerst, 2006), reducing groupthink¹ (Jannis, 1989) and increasing accountability (Gordon, 2007). Second, with regard to employees’ longer-term interests, the presence of board-level employee

1 Groupthink refers to the prioritisation by cohesive groups of consensus and harmony above critical thinking. This can lead to flawed decision-making as dissenting opinions are suppressed and alternatives are ignored.

representatives may encourage firms to think less in terms of short-term gains and to make more long-term investments (Kleinknecht, 2015; Vitols and Scholz, 2021). Third, like works councils, board-level employee representatives have a collective voice effect. Because the board is involved at an earlier stage and a higher level of decision-making, however, this voice effect may be stronger. Empirical studies have found mixed results (Addison, 2009), with some recent studies signalling positive effects on productivity (FitzRoy and Kraft, 2005; Renaud, 2007) and employment (Gorton and Schmid, 2004). Other studies indicate that the effect depends on the business cycle (Kleinknecht, 2015) or the degree of coordination required in the firm (Fauver and Fuerst, 2006).

Importantly, all the dimensions of worker participation discussed (union membership, collective bargaining, workplace representation and board representation) are partly related to institutional characteristics, but also to management perceptions and behaviour.

In terms of institutions, trade union density is closely related to the existence of Ghent systems in a country and the level of institutional support for trade union organisation. Similarly, the extent of collective bargaining coverage is significantly influenced by legal provisions that either facilitate or require negotiations between management and unions under certain conditions. Workplace representation, on the other hand, is influenced mainly by legislation on the establishment of works councils, including the relevant thresholds and potential obstacles. Finally, board-level employee representation depends heavily on the presence of institutional enabling factors. While institutions are essential, they do not entirely determine the existence of employee participation. The agency of workers, unions and management also plays a role in whether institutional facilities are used, avoided or circumvented.

The purpose of this article is to present an attempt to overcome the observed lack of inclusion of workplace and board-level representation in international comparisons through the development and application of the 'European Participation Index' (EPI).

Section 2 of the article describes the conceptualisation and operationalisation of the EPI, including a description of the data sources. Section 3 presents EPI calculations for the (pre-Brexit) EU-28 countries, showing both considerable heterogeneity across countries and an overall decline in the strength of employee participation in the EU over the past decade. A principal components analysis (PCA) confirms that the three dimensions are distinct channels of worker influence of roughly equal weight. Section 4 demonstrates the EPI's usefulness in empirical analysis by showing that it explains more of the variance in inequality than traditional measures of worker representation. This suggests that the EPI can be a useful tool in cross-country comparative analysis.

Conceptualisation and construction of the EPI

Development of the European Participation Index

While the importance of worker voice at workplace and board level is widely recognised, it has rarely been used in international comparative studies. One major obstacle is the lack of quality data on quantitative measures of employee representation at these two levels.

To fill this gap, researchers at the European Trade Union Institute (ETUI) have undertaken a number of initiatives to develop more comprehensive comparative information and indicators on workers' ability to exercise 'voice' through collective organisation.² One initiative dating back to the mid-2000s is the analysis of the legal framework for board-level employee representation in EU/EEA countries (HBS and ETUI, 2004). This initiative developed a typology of three categories

2 See www.worker-participation.eu for comprehensive data comparing European industrial relations systems.

of board representation in EU/EEA countries: no formal rights, weak rights (where board-level employee representation exists mainly in state-owned companies) and strong rights (where board-level employee representation is widespread in both state-owned and private companies). The ETUI monitors employee participation rights in Europe on an ongoing basis and updates this classification as countries change their legal frameworks. An early analysis comparing strong and weak BLER countries found that the economic and social performance of the 'strong BLER' group of EU countries was superior (Vitols, 2005).

At the workplace level, comprehensive quantitative data on employee representation were not available for EU countries until 2009. In that year, both the European Foundation for the Improvement of Living and Working Conditions (Eurofound) and the European Agency for Safety and Health at Work (EU-OSHA) conducted large-scale enterprise surveys that included questions on the presence of trade unions, works councils and other forms of employee representation. These are the first data sources to provide reliable estimates of the percentage of workplaces and workers with formal workplace representation in a large number of European countries.

These two initiatives provide data that can be used for cross-country comparisons in addition to traditional trade union bargaining, at company level and at board level. Based on these two additional measures of employee representation, a three-dimensional European Participation Index (or EPI) has been developed by researchers at the ETUI. This index is designed to provide an overall measure of the potential for workers to collectively influence company policy at the country level, taking account of the diversity of national industrial relations systems.

Motivation for developing an index

The main motivation for combining these different measures into a single indicator is the existence of 'functional equivalents' and the synergistic interaction effects between the different areas of employee participation.

The idea of a functional equivalent refers to a situation in which different factors can have the same effects (Traxler, 2002). Applied to the area of employee participation, for example, a high level of unionisation and sectoral collective bargaining with legal extensions are functional equivalents for achieving collectively agreed wages (Traxler, 1999). In the Nordic countries, the omnipresence of trade unions means that wages are generally based on collectively agreed minima. In Belgium and Austria, the same result is achieved through a combination of union density and the extension of collective agreements, while in France, despite low union density, collectively agreed wages are omnipresent. Using only union density or collective bargaining as indicators ignores the importance of functional equivalents.

Similarly, (well-functioning) works councils and union density are functional equivalents for some workplace issues (Gumbrell-McCormick and Hyman, 2010). An illustrative example is the Netherlands, with its strong works councils with extensive participation rights. Such works councils may be a functional equivalent of high union density in terms of giving workers a voice at the workplace level. If only the presence of works councils or union density is measured as a proxy for voice at the company level, the presence of the other mechanism as a functional equivalent would be ignored.

In addition to the need to account for functional equivalents, another motivation is the presence of synergistic interaction effects. The idea of an interaction effect is that the combined presence of two factors leads to a different outcome from their individual effects. These are often referred to as complementarities (see Hall and Soskice, 2001) or synergies (for example, Wilkinson et al., 2010). In the case of employee voice, various mechanisms reinforce one another. For example, the presence of a board-level representative can strengthen the role of the works council and vice versa.

Similarly, high union density combined with the presence of workplace representation can have a greater effect than the sum of the two parts.

Cross-country research based on single indicators of workplace representation thus ignores the existence of functional equivalents and interactions, leading to a lack of explanatory power and mixed empirical results. By calculating a single scale of employee participation, the presence of functional equivalents and synergistic interactions can be taken into account in international comparisons. This may provide a better explanatory variable for different outcomes of financial participation than the individual scores on which it is based. The EPI has proved useful in the ETUI's cross-country comparative research (ETUC and ETUI, 2009: 55; ETUC and ETUI, 2011: 97–98; ETUC and ETUI, 2017: 58; ETUC and ETUI, 2018: 76; ETUC and ETUI, 2019: 73–75).

A basic assumption underlying the EPI is that the modern firm is not a fully centralised organisation; instead, there is a degree of autonomy for different levels and locations, with different actors involved in decision-making at these different levels and locations (Geppert and Dörrenbächer, 2014). In other words, power is partially dispersed within the firm; workers can exert influence through different channels within the firm based on different mechanisms of collective representation (De Spiegelaere et al., 2019).

The EPI considers three of these mechanisms: the traditional collective bargaining dimension, the workplace/plant dimension, and the corporate governance dimension (through board-level representation). This section describes these three different levels, the data sources for them and the construction of the EPI summary measure.

Dimension 1: collective bargaining and union density

The first dimension included in the EPI is the 'traditional' collective bargaining dimension. Collective bargaining by trade unions is the most commonly used measure of collective employee influence on companies among the various measures used for the EPI. In collective bargaining, trade unions negotiate directly with companies or with employers' associations at sectoral or national level. Collective agreements cover mainly rules and standards on pay and other working conditions. Collective bargaining increasingly covers a wider range of issues, however, including work-life balance, corporate responsibility and corporate social responsibility (Sydow et al., 2014). These agreements are implemented primarily through companies' HR departments and have a significant impact on company operations.

Two elements are considered for this dimension of the EPI: (i) union density (the proportion of the workforce that is unionised) and (ii) collective bargaining coverage (the proportion of the workforce covered by collective agreements). Although there is a strong correlation between these two elements, in a few cases there is an extreme divergence, for example in France, where collective bargaining coverage is almost universal but less than 10 per cent of the workforce is unionised. This dimension therefore takes the average of these two elements. Theoretically, both elements can vary from 0 (no trade union members or no workers covered by collective agreements) to 1 (all workers are trade union members or all workers are represented by trade unions).

The data for both elements of this dimension come from the OECD/AIAS ICTWSS database on industrial relations at the University of Amsterdam (Visser, 2019).

Dimension 2: workplace representation

The second dimension of collective employee representation included in the EPI is workplace representation, specifically the presence of one or more formal employee representative at workplace (that is, plant) level. This presence is important because many issues (such as job classification and

allocation, working time and overtime, training, and introduction of new technologies) are decided at plant level. Representation at this level can therefore influence company policy in a way that board-level employee representation and collective bargaining above plant level (in other words, company, sectoral or national level) cannot. This representation structure varies from country to country and can be either a works council, a union branch organisation or a shop steward/shop stewards committee. In some countries there may be parallel organisations (Aumayr-Pintar et al., 2011).

The data for coding countries along this dimension come from two large-scale enterprise surveys that include questions on whether or not there is formal employee representation at workplace level. The first of these surveys, the European Company Survey (ECS), is funded and coordinated by the European Foundation for the Improvement of Living and Working Conditions (Eurofound). The second and third waves of the ECS, carried out in 2009 and 2013 respectively, included questions on the existence and nature of employee representation at establishment level. The second wave covered around 27,000 workplaces and the third wave 30,000 workplaces in 32 European countries. Data from the fourth wave, which was carried out in 2019, included over 25,000 workplaces in all EU Member States.

The second survey used is the (ESENER) survey conducted by the European Agency for Safety and Health at Work (EU-OSHA). As the main focus of the survey is on occupational safety and health issues and worker representatives play a key role in this area in Europe, questions on the presence and type of worker representation at workplace level were included. The first wave, carried out in 2009, included responses from almost 36,000 workplaces in 31 countries. The second wave (ESENER II) in 2014 included responses from almost 50,000 companies in 36 countries.

Based on the answers to the questions in these surveys, establishments were coded '1' if there was another employee representative or '0' if there was no employee representative. In the case of the ESENER survey, establishments were coded as '0' if only one health and safety representative was present, as the rights of these representatives are limited to one specific policy area. Informal arrangements such as informal employee representatives or round tables were also excluded.

As both the ECS and ESENER surveys use a weighting scheme based on enterprise size to ensure that enough large enterprises are included in the sample, the databases contain weighting factors for each of the participating enterprises. This makes it possible to calculate an estimate of the proportion of the total workforce in a country that is covered by formal workplace representation. In principle, this component can therefore vary from 0 (no employees are covered by formal workplace representation) to 1 (all employees have formal workplace representation).

Dimension 3: board-level employee representation

The third dimension of the EPI examines the strength of legal rights pertaining to board-level employee representation. Employee representatives on the board can have a very direct influence on company policy. Generally, they enjoy the same rights as shareholder representatives, have access to company information, can participate in discussions on the board and its committees, and can vote on key company policies, such as investment, dividend policy, mergers and acquisitions, and plant location (Gold et al., 2010). A large body of research suggests that it makes a significant difference whether a company has 'workers on the board' (Jirjahn, 2010; Scholz and Vitols, 2019; Waddington and Conchon, 2015).

To operationalise this dimension, the EPI draws on a country-level classification developed in the mid-2000s by Norbert Kluge and Michael Stollt (both researchers at the ETUI at the time). This work was part of an effort to monitor the countries in which the European Company (SE) statute applied (EU/EEA countries). Kluge and Stollt developed a three-category scale of the strength of board-level employee rights (BLER). The categorisation of countries has been updated by ETUI

researchers to take account of EU enlargement and changes in board-level employee representation rights at national level:

- In the first category ('broad participation rights'), employees have strong rights to representation on the boards of both private and state-owned companies. In most countries in this category there is an employment threshold for private companies, above which board-level employee representation is either compulsory or employees have the right to demand it.
- In the second category of countries ('limited participation rights'), employees have weaker rights to representation, in some cases limited to state-owned and recently privatised companies, in other cases including private companies but making representation dependent on the agreement of the employer rather than a statutory right for employees.
- In the third category of countries ('no or very limited participation rights') employee representation at board level tends to be voluntary.

When classifying the EU-28 starting in 2009 and going up to 2017, the following countries fall into the three groups as follows:

- (i) **Countries with a wide-ranging system of board-level representation** (that is, in which board-level employee representation rights extend to private companies): Austria, Croatia, Denmark, Finland, Germany, Hungary, Luxembourg, the Netherlands, Slovak Republic, Slovenia and Sweden. Because of changes in their legislative frameworks, Czechia was included in this category up to and including 2013, and France was included after 2013.
- (ii) **Countries with limited experience of board-level representation** (for example, in state-owned or privatised companies and on a voluntary basis in the private sector): Greece, Ireland, Poland and Portugal. Because of legal changes France was included up until 2013, Czechia as of 2014 and Spain up until 2014.
- (iii) **Countries with no regulations on board-level representation:** Belgium, Bulgaria, Cyprus, Estonia, Italy, Latvia, Lithuania, Malta, Romania and the United Kingdom. As a result of legal changes Spain is included in this category starting in 2015.

In terms of operationalisation, countries in the first group ('strong BLER rights') are coded with a '1'. Countries in the second group ('limited BLER rights') are coded with a '0.5'. Countries in the third group ('no BLER rights') are coded with a '0'.

How the index differs from comparable indexes

Although the European Participation Index is an innovative method for doing cross-country comparisons regarding the degree to which employees participate in various ways in the management of the firm, it is obviously not the only index that does so.

We here compare the EPI with two alternative and closely related cross-national indexes: Eurofound's '**Industrial Democracy Index**' and the New Economics Foundation's '**Economic Democracy Index**'.

Eurofound's **Industrial Democracy Index** is actually a sub-index of a larger 'industrial relations index'. This last index encompasses industrial democracy, competitiveness, social justice and quality of work and employment. The industrial democracy sub-index considers indicators in three main dimensions: (i) associational governance, (ii) representation and participation rights at company level, and (iii) social dialogue at company level.

There is an obvious overlap between the two indicators with the use of similar indicators for collective bargaining coverage, board-level employee representation rights, employee representation in companies and trade union density. However, the Industrial Democracy Index has a total of 13 indicators. Just as for the European Participation Index, equal weight is given to the three main dimensions. Inside those dimensions, equal weight is also given to the different indicators. Also similar to the EPI, the indicators for the second dimension (representation and participation rights) are quantitative representations of legal rights. This includes the BLER indicator used for the EPI, combined with works council rights and status taken from the ICTWSS database (Eurofound, 2018).

The main difference between the industrial democracy index and the EPI thus lies mostly in the breadth of the indicators used. As such, the industrial relations database also looks at employer organisation rates, bipartite councils for wage setting, and trade union involvement in government policy-making. While this is obviously part of 'economic democracy' more broadly it goes beyond worker participation in companies, the focus of EPI.

The **Economic Democracy Index** was developed in the context of a collaboration between the University of Glasgow, Nottingham Trent University, Oxfam and the New Economics Foundation. The index covers the OECD countries and covers four dimensions: (i) workplace and individual employment rights, (ii) degree of associational economic democracy, (iii) distribution of economic decision-making powers across space and sector, and (iv) transparency and democratic engagement of the broader population in macroeconomic decision-making.

While this index has some overlap with the EPI (mainly on the first two dimensions), it is even broader than Eurofound's Industrial Democracy Index as it looks equally to indicators such as allocation of taxes to local government, government expenditure as a percentage of GDP, monitoring of corruption and the transparency of the central bank (Cumbers et al., 2023).

Comparison of the EPI with the two alternative indexes shows a considerable overlap, but also its distinctiveness. The EPI is distinct in that it has a clear (and unique) focus on company-level participation and a smaller number of indicators. Both contribute, in our understanding, to the transparency and focus of the index. The other indexes are, in keeping with their name, broader and try to look at economic democracy more generally, not restricted to workplace relations and influence.

Method

Calculation of the EPI

We calculated an EPI score for each of the EU-28 countries for each year from 2009 to 2017. The country-level EPI can vary between 0 (no collective worker representation) and 1 (the highest level of worker voice on all three dimensions). Each of the three dimensions just discussed (board-level employee representation, workplace representation and collective bargaining) are weighted equally to derive this measure (in other words, one-third weight for each dimension). In order to facilitate equal weighting, each of the dimensions was scaled from 0 to 1. For collective bargaining representation, union density and collective bargaining coverage (each which varies from 0 to 1) were summed and then divided by two. As the sampling size for the establishment surveys was small in some countries, the estimates for plant-level representation from the ECS and ESENER surveys (which vary between 0 and 1) were summed and then divided by two. For board-level representation, the BLER score (which varies from 0 to 1) was used. The sums of these three elements were then divided by three to give each of them an equal weighting.

$$\text{EPI} = \frac{((\text{Union density} + \text{CBC}) / 2) + ((\text{ECS} + \text{ESENER}) / 2) + \text{BLER}}{3}$$

As data on workplace representation and collective bargaining are not available for each year for each country values were calculated based on the last available data. This was operationalised with the ‘fill’ procedure available in the software used for analysis (STATA).

Limitations

While the EPI index presented in this article has a number of significant advantages in terms of enabling cross-country comparisons and incorporating the idea of functional equivalents and synergetic interactions and comparisons over time, it equally has a couple of important limitations.

First, the measurement of the third indicator, BLER, is imperfect at best. The indicator used for BLER is qualitatively different from the other two EPI indicators as it is basically categorical. In an ideal world, one would have access to the proportion of companies (or employees) in which employees have representation at board level. Such data are unavailable, however, and there are not even cross-national estimates. The index therefore uses an indicator based on the legal situation with values ranging from 0 through 0.5 to 1. The ‘quantification’ of legal rules is often used in other transnational indicators such as the OECD’s Employment Protection Legislation Index (OECD, 2020) or *The Economist*’s International Democracy Index. The BLER indicator used here is also used in alternative comparable cross-country indexes of industrial democracy (see above). In the future, however, with the implementation of country-by-country reporting on employment figures by multinational firms, better quantitative indexes could be used to estimate the importance of BLER.

Second, while all indicators are updated regularly, the regularity of the updates differs significantly. For collective bargaining coverage, the index is based on the AIAS-ICTWSS database, which itself is based on national databases that are sometimes administrative and sometimes survey-based, and update frequency differs from country to country. For union density and workplace representation, European surveys are used as data sources, which has the benefit of regularity, but also means that between the survey waves one has to rely on data imputation. The BLER updates are done whenever legal situations change and are analysed by the ETUI.

Third, the EPI aims to cover different types of employee participation, including board-level employee representation. With BLER, employee representatives sit on company boards and have insight into and influence over companies’ broader strategies in various ways. While this is a potentially powerful form of employee representation both in practice (co-management of the company) and in discourse (it questions the managerial prerogative), board-level employee representation is generally present only in larger (or public) firms. Nevertheless, in the EPI, BLER gets equal weight with the other two dimensions of employee participation. A change in BLER legislation (as happened in France in 2017) translates into a uptick of the EPI index. One might contemplate giving less weight to the BLER dimension, but a subjective choice would be required regarding how much weight this dimension should be given. At the same time, a change in legislation on works councils (for example, lower thresholds or making them compulsory) would equally translate into a significant uptick of the EPI index, as would a change in policy on collective bargaining (for example, implementing extension mechanisms). Lacking better data on board-level employee representation (as discussed above), the choice is therefore to give equal weight to all three dimensions of the EPI index.

Table 1. EPI score and elements for the EU-28 countries in 2017.

Country	EPI	(1) (CBD + Trade Union Density)/2	(2) Workplace Rep	(3) BLER
Denmark	0.87	0.75	0.85	1
Finland	0.86	0.76	0.81	1
Sweden	0.84	0.76	0.77	1
France	0.77	0.53	0.79	1
Luxembourg	0.75	0.46	0.79	1
Netherlands	0.73	0.47	0.72	1
Austria	0.73	0.62	0.56	1
Slovenia	0.71	0.46	0.67	1
Germany	0.64	0.36	0.56	1
Slovak Republic	0.60	0.18	0.61	1
Croatia	0.58	0.35	0.39	1
Hungary	0.52	0.16	0.40	1
Belgium	0.49	0.74	0.73	0
Malta	0.47	0.50	0.40	0.5
Ireland	0.45	0.29	0.56	0.5
Portugal	0.42	0.45	0.30	0.5
Spain	0.40	0.49	0.72	0
Italy	0.37	0.57	0.55	0
Poland	0.37	0.15	0.46	0.5
Czech Republic	0.36	0.21	0.36	0.5
Greece	0.33	0.23	0.28	0.5
Cyprus	0.29	0.44	0.43	0
Romania	0.28	0.21	0.64	0
United Kingdom	0.26	0.25	0.53	0
Lithuania	0.22	0.07	0.59	0
Bulgaria	0.19	0.18	0.38	0
Latvia	0.15	0.13	0.31	0
Estonia	0.14	0.11	0.31	0

Distribution of the EPI across countries

The distribution of the EPI across the EU-28 countries in 2017 is shown in Table 1. The countries are distributed fairly evenly across almost the entire range from 0.14 to 0.87. The highest scores are at the top of Table 1, in countries in which board-level employee representation is widespread in both the public and private sectors, workplace representation is almost universal, and a large majority of employees are not only represented by trade unions in collective bargaining but are also union members. The Nordic countries have the highest EPI scores (Denmark, Finland and Sweden, with 0.87, 0.86 and 0.84, respectively). At the bottom of the distribution are the Baltic countries (Estonia, Latvia and Lithuania, with 0.14, 0.15 and 0.22, respectively) and Bulgaria (0.19).

But although many Central and Eastern European countries score low on the EPI, there is not a simple regional divide, as the United Kingdom has the fifth lowest score (0.26). In Central and Eastern Europe, Slovenia, the Slovak Republic, Croatia and Hungary all have scores above 0.5 (0.71, 0.60, 0.58 and 0.52, respectively), partly because they all provide for board-level employee representation in the public and private sectors. And even in the

Table 2. Principal Component Analysis eigenvalues of EPI elements.

Principal component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	2.330	1.496	0.583	0.583
Comp2	0.834	0.348	0.209	0.791
Comp3	0.487	0.138	0.122	0.913
Comp4	0.349	.	0.087	1.000

Table 3. Loading of EPI constituent elements on PCA components.

Variable	Comp1	Comp2	Comp3	Comp4	Unexplained
Density	0.472	-0.562	0.641	0.226	0
CBC	0.570	-0.063	-0.195	-0.796	0
BLER	0.389	0.824	0.395	0.117	0
Workplace Rep	0.548	-0.036	-0.629	0.550	0

countries with the lowest scores, at least 30 per cent of employees enjoy collective representation through workplace representatives.

Validity of EPI construction

A useful check of the methodological validity of the EPI's construction is to perform a Principal Components Analysis (PCA) on its constituent elements. PCA is a method that analyses a number of different elements and helps to determine whether they can be usefully summarised in a single underlying dimension (or 'principal component'), or whether there are two or more separate dimensions underlying the different elements. Tables 2 and 3 show the results of a PCA of the components of the EU-28 countries' EPIs in 2017.

In a PCA, the test generally used to identify the number of dimensions involves looking at the number of principal components with an eigenvalue greater than 1. According to Table 2, only one principal component has an eigenvalue greater than 1. This analysis suggests that the principal components of the EPI can best be seen as reflecting a single dimension of employee voice.

Going one step further, PCA can indicate the relative contribution of the different variables to the different dimension(s) and whether they make a positive or negative contribution. Table 3 shows the 'loading' (that is, the contribution) of the different EPI components on the different principal components. Only the first one (Comp1) is considered as it is the only one with an eigenvalue greater than 1.

Table 3 shows that all the EPI components are positive; in other words, they all contribute to the first principal component. Furthermore, they all contribute approximately equally (between 0.389 and 0.570) to Comp 1. This can be seen as confirmation of the equal weighting of the different components in the construction of the EPI.

EPI trend over the past decade

The availability of data for all individual EU countries since 2009 makes it possible to calculate an 'EU-wide EPI', in the sense of an EPI for the entire EU-28 labour force, and to track its development over time. To calculate this EU-wide figure, country scores are weighted by the percentage of total employment in the EU-28 that each country accounts for.

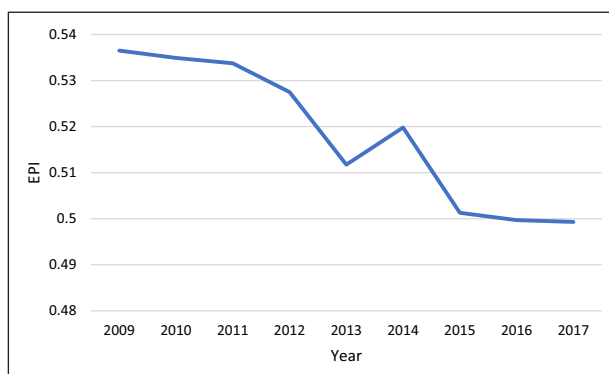


Figure 1. EPI weighted average in EU-28, 2009–2017.

Figure 1 shows the evolution of the EU-28 EPI. With the exception of an increase between 2013 and 2014, which is largely because of France's adoption of a law that significantly strengthens board-level employee representation in the private sector (thus significantly increasing the French EPI), the trend between 2009 and 2017 was downward. While the EU-28 EPI was close to 0.54 in 2009, it had fallen to 0.50 by 2017. This represents a significant erosion of the strength of employee participation in the EU in eight years, a relatively short period of time.

The EPI and income inequality

To demonstrate the EPI's usefulness for cross-country analysis, a multivariate regression analysis was carried out to compare the ability of different measures of worker representation to explain variations in income inequality across EU countries.

In line with the academic literature, one could expect to find a negative relation between EPI and inequality; in other words, the higher a country's score on the EPI index, the lower inequality is expected to be, or the higher the equality.

This negative relationship is based on the general idea that worker participation (of different kinds, as reflected by the EPI index) is likely to lead to a more equal distribution of created wealth, both inside companies and in society at large. Inside companies, employee participation – whether in the form of works councils, trade unions, collective bargaining or board-level participation – is likely to increase employees' overall voice, oversight and control. This rebalances the power difference between employees and employers and leads to a better deal for workers (Dorigatti and Pedersini, 2021). As a result, wages will be higher and wage differentials in companies will be lower (Leonardi et al., 2019). Besides that, high collective bargaining coverage ensures more equal wages within sectors through sectoral bargaining. Conversely, research has shown that decreasing collective bargaining coverage is associated with higher levels of low-paid jobs (Benassi and Vlandas, 2021). Last but not least, high union density is likely to be a proxy for worker power in society and politics, enabling them to push for more redistributive politics (Bengtsson, 2014; Pontusson, 2013).

Accordingly, we here present an illustration of the relationship between EPI and inequality. The measure of income inequality used was based on annual OECD data on the ratio between the average household disposable income of the top 20 per cent of households and that of the bottom 20 per cent. This ratio varied between 3.2 and 8.3 in the EU-28 countries between 2009 and 2017.

The different models estimated used the following alternative measures of worker representation. The measures for Models 1–4 are derived from the University of Amsterdam's ICTWSS

database on industrial relations (Visser, 2019). The data for Model 5 are based on an update of the OECD typology of collective bargaining types (OECD, 2019), and those for Model 6 are based on the EPI:

- Model 1: the percentage of workers covered by collective bargaining contracts (CBC – collective bargaining coverage).
- Model 2: the percentage of workers who are members of trade unions (TUD – trade union density).
- Model 3: the dominant level of bargaining (LEVEL), which is based on the ICTWSS five-level scale from fully decentralised to economy-wide bargaining (1 to 5). This model is included because some in the literature suggest that the level at which collective bargaining takes place is key, as national-level bargaining will have the most decisive impact on economic outcomes.
- Model 4: the degree of coordination of collective bargaining (COORD), which is based on the ICTWSS five-level scale from uncoordinated to fully coordinated bargaining (1 to 5). This model is included because some literature argues that the first three measures do not capture the extent to which collective bargaining is coordinated across companies. In Japan, for example, collective bargaining formally takes place at the company level; however, a great degree of coordination across companies is provided by the ‘spring wages offensive’.
- Model 5: a five-category typology of collective bargaining derived from the OECD 2019 report ‘Negotiating Our Way Up: Collective bargaining in a changing world of work’: FD – fully decentralised; LD – largely decentralised; ODC – organised decentralised and co-ordinated; PCC – predominantly centralised and co-ordinated; and PCW – predominantly centralised and weakly co-ordinated.
- Model 6: worker representation as measured by the multi-dimensional EPI.

In order to compare the ability of each of these measures of worker representation to explain income inequality, these different models were estimated using random effects regression, with errors clustered at the country level. Random effects models were used because there are very strong theoretical reasons for preferring them to fixed effects models (Richter and Schrader, 2017), which are often used in this type of estimation. First, the variation over time (within variation) of the main explanatory variables is limited, as institutions of worker representation were fairly stable in most countries over this period. Second, the countries analysed are representative of the EU as a whole; in other words, sample-based estimation approaches are not applicable here. Third, the analysis’ primary interest is to explain the level of inequality rather than changes in inequality over the period (Table 4).

The regression results show that all of the six measures of worker representation are significantly associated with income inequality. In all six models the coefficients (or in the case of Model 5, two of the four) were significant at the 95 per cent or 99 per cent level, indicating a high level of confidence in an association between the strength of worker representation and inequality. Furthermore, in all cases the significant coefficients were negative; that is, ‘stronger’ representation is associated with lower levels of inequality:

- Model 1: a higher CBC (that is, a higher percentage of workers covered by collective bargaining agreements) is associated with lower inequality.

Table 4. 20–80 income inequality and alternative measures of worker representation, EU-28, 2009–2017.

VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
CBC	−0.899*** (0.234)					
TUD		−1.778** (0.876)				
LEVEL			−0.240*** (0.0615)			
COORD				−0.226*** (0.0367)		
LD					0.158 (0.188)	
ODC					−0.800*** (0.147)	
PCC					−0.541*** (0.147)	
PCW					−0.312 (0.202)	
EPI						−2.515*** (0.690)
Constant	5.317*** (0.255)	5.296*** (0.390)	5.334*** (0.289)	5.283*** (0.252)	5.002*** (0.251)	6.124*** (0.451)
Observations	251	251	242	251	251	251
Number of country clusters	28	28	27	28	28	28
Year dummies	YES	YES	YES	YES	YES	YES
R2 overall	0.104	0.152	0.0911	0.177	0.133	0.467
Wald chi2	57.95	29.96	60.69	137.6	610.4	25.48

P-values: * <0.1, ** < 0.05; *** <0.01.

- Model 2: a higher TUD (that is, a higher percentage of workers are members of trade unions) is associated with lower inequality.
- Model 3: higher levels of dominant bargaining are associated with lower income inequality.
- Model 4: greater degrees of coordination in collective bargaining are associated with lower inequality.
- Model 5: ODC (Organised Decentralised and Co-ordinated) and PCC (Predominantly Centralised and Co-ordinated) are associated with lower levels of inequality than FD (Fully Decentralised – the default category).
- Model 6: higher levels of EPI are associated with lower inequality.

While all measures of worker representation are significant and negatively associated with income inequality, a comparison of the R2 statistic shows that the models perform very differently in terms of how much inequality is explained. Specifically, R2 measures the percentage of variation in the dependent variable (income inequality), which is explained by the different models. While Models 1 to 5 explain between 9 and 18 per cent of the variation, Model 6 (EPI) explains by far the most variation (47 per cent). In other words, the EPI explains between 2.6 and 5.2 times as much variation in income inequality as the other measures of employee representation.

Conclusion

Our aim in this article is to address two questions relevant to this thematic issue: (i) is there a trend towards managing *with* workers through worker participation in Europe; and (ii) what is the impact of worker participation on outcomes, in this case inequality? To that end we introduced the EPI, a multi-dimensional index designed to measure employee voice across countries. The EPI is designed to be a tool for cross-country comparative analysis of the strength and impact of employee voice. It represents an advance over previous measures of employee representation in two respects. Although trade union variables (union density, bargaining coverage, centralisation and coordination) are often included in cross-country comparative research, other mechanisms of worker voice are included only rarely.

The EPI addresses this shortcoming by including explicit measures of workplace representation and board-level employee representation (BLER). Calculation of the EPI for the EU-28 countries over the period 2009–2017 shows that there are wide variations in the strength of workers' voice across Member States: the EU is far from a level playing field in terms of workers' ability to influence company affairs. At the same time, the different elements of the EPI are correlated only unevenly. For example, Italy has no board-level employee representation, but high levels of collective bargaining coverage and workplace representation, while Hungary has board-level employee representation but low levels of union membership and workplace representation.

Principal component analysis confirms the validity of this construct by showing that although there is only a partial correlation between the components of the EPI, they can nevertheless be seen as reflecting a single underlying dimension, and that these components are roughly equally weighted. This suggests that the EPI captures existing functional equivalents in types of employee involvement and known synergies, and an equal weighting of the components is justified.

This article documents a general trend towards a weakening of workers' voice in the EU over the past decade. A declining EPI indicates an erosion of the prerequisites of 'managing with workers', and should be a source of concern for advocates of workplace democracy and the ability of workers to have a voice in company affairs.

The usefulness of the EPI is demonstrated by comparing the explanatory power of this variable with various measures of collective bargaining and the OECD's five-category typology of collective bargaining systems. In the case of wages, both workplace representation and board-level employee representation can be expected to have an impact on their distribution. Workplace representatives can ensure, for example, that standards (payment for overtime, correct job classification and so on) are enforced. Employee representatives on the board can, for example, support anti-discrimination policies or oppose the excessive use of precarious workers. The EPI's stronger explanatory power in explaining differences in inequality across countries thus seems to confirm its ability to take into account workers' ability to influence wage inequality through various mechanisms.

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

References

- Addison JT (2009) *The Economics of Codetermination: Lessons from the German Experience*. New York, NY: Palgrave Macmillan.
- Aidt TS and Tzannatos Z (2008) Trade unions, collective bargaining and macroeconomic performance: A review. *Industrial Relations Journal* 39(4): 258–295.

- Aumayr-Pintar C, Demetriades S, Foden D et al. (2011) *Employee representation at establishment level in Europe*. Eurofound Report. Dublin: Eurofound.
- Benassi C and Vlandas T (2021) Trade unions, bargaining coverage and low pay: A multilevel test of institutional effects on low-pay risk in Germany. *Work, Employment and Society* 36(6): 1018–1037.
- Bengtsson E (2014) Do unions redistribute income from capital to labour? Union density and wage shares since 1960. *Industrial Relations Journal* 45(5): 389–408.
- Berger S, Pries L and Wannöffle M (eds) (2019) *The Palgrave Handbook of Workers' Participation at Plant Level*. New York, NY: Palgrave Macmillan.
- Calmfors L and Driffill J (1988) Bargaining structure, corporatism and macroeconomic performance. *Economic Policy* 3(6): 13–61.
- Cumbers A, Bilsland K, McMaster R et al. (2023) The condition of European economic democracy: A comparative analysis of individual and collective employment rights. *Economic and Industrial Democracy* 44(1): 109–137.
- De Spiegelaere S, Hoffman A, Jagodziński R et al. (2019) Democracy at work. In: ETUI (ed.) *Benchmarking Working Europe 2019*. Brussels: ETUI, pp. 67–89.
- Dorigatti L and Pedersini R (2021) Industrial relations and inequality: The many conditions of a crucial relationship. *Transfer: European Review of Labour and Research* 27(1): 11–27.
- ETUC and ETUI (2009) *Benchmarking Working Europe 2009*. Brussels: ETUI.
- ETUC and ETUI (2011) *Benchmarking Working Europe 2011*. Brussels: ETUI.
- ETUC and ETUI (2017) *Benchmarking Working Europe 2017*. Brussels: ETUI.
- ETUC and ETUI (2018) *Benchmarking Working Europe 2018*. Brussels: ETUI.
- ETUC and ETUI (2019) *Benchmarking Working Europe 2019*. Brussels: ETUI.
- Eurofound (2018) *Measuring Varieties of Industrial Relations in Europe: A Quantitative Analysis*. Luxembourg: Publications Office of the European Union.
- Fauver L and Fuerst ME (2006) Does good corporate governance include employee representation? Evidence from German corporate boards. *Journal of Financial Economics* 82(3): 673–710.
- FitzRoy F and Kraft K (2005) Co-determination, efficiency and productivity. *British Journal of Industrial Relations* 43(2): 233–247.
- Flanagan RJ (1999) Macroeconomic performance and collective bargaining: An international perspective. *Journal of Economic Literature* 37(3): 1150–1175.
- Freeman RB and Medoff JL (1985) *What Do Unions Do?* New York, NY: Basic Books.
- Geppert M and Dörrenbächer C (2014) Politics and power within multinational corporations: Mainstream studies, emerging critical approaches and suggestions for future research. *International Journal of Management Reviews* 16(2): 226–244.
- Gold M, Kluge N and Conchon A (2010) *In the Union and on the Board: Experiences of Board-Level Employee Representatives across Europe*. Brussels: ETUI.
- Gordon JN (2007) The rise of independent directors in the United States, 1950–2005: Of shareholder value and stock market prices. *Stanford Law Review* 59(6): 1465–1568.
- Gorton G and Schmid FA (2004) Capital, labor, and the firm: A study of German codetermination. *Journal of the European Economic Association* 2(5): 863–905.
- Gumbrell-McCormick R and Hyman R (2010) Works councils: The European model of industrial democracy? In: Wilkinson A, Gollan PJ, Marchington M et al. (eds) *The Oxford Handbook of Participation in Organizations*. Oxford: Oxford University Press, pp. 286–314.
- Hall PA and Soskice D (2001) *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*. Oxford: Oxford University Press.
- HBS and ETUI (2004) *Workers' Participation at Board Level in the EU-15 Countries. Reports on the National Systems and Practices*. Düsseldorf; Brussels: HBS and ETUI.
- Hermans M, Deseire S and Lenaerts K (2020) *Maakt de Vakbond Het Verschil? Effecten van Werknemersvertegenwoordiging Op Organisatieniveau*. Leuven: HIVA Onderzoeksinstituut voor Arbeid en Samenleving.
- Holland P, Teicher J and Donaghey J (eds) (2019) *Employee Voice at Work*. Singapore: Springer.

- Hübler O and Jirjahn U (2003) Works councils and collective bargaining in Germany: The impact on productivity and wages. *Scottish Journal of Political Economy* 50(4): 471–491.
- Jannis IL (1989) *Crucial Decisions: Leadership in Policymaking and Crisis Management*. New York, NY: Simon and Schuster.
- Jirjahn U (2010) Ökonomische Wirkungen der Mitbestimmung in Deutschland: Ein Update. Arbeitspapier 186. Düsseldorf: Hans-Böckler-Stiftung.
- Johnstone S and Ackers P (2015) *Finding a Voice at Work? New Perspectives on Employment Relations*. Oxford: Oxford University Press.
- Kenworthy L (2003) Quantitative indicators of corporatism. *International Journal of Sociology* 33(3): 10–44.
- Kleinknecht RH (2015) Employee participation in corporate governance: Implications for company resilience. *European Journal of Industrial Relations* 21(1): 57–72.
- Lange P and Garrett G (1985) The politics of growth: Strategic interaction and economic performance in the advanced industrial democracies, 1974–1980. *The Journal of Politics* 47(3): 792–827.
- Leonard E and Taskin L (2024) ‘Human resource management and the worker’: Employee voice in management. *Transfer: European Review of Labour and Research* 30(2): 127–142.
- Leonardi M, Pellizzari M and Tabasso D (2019) Wage compression within the firm: Evidence from an indexation scheme. *The Economic Journal* 129(624): 3256–3291.
- OECD (2019) *Negotiating Our Way Up: Collective Bargaining in a Changing World of Work*. Paris: OECD Publishing.
- OECD (2020) *OECD Employment Outlook 2020: Worker Security and the COVID-19 Crisis*. Paris: OECD.
- Pontusson J (2013) Unionization, inequality and redistribution. *British Journal of Industrial Relations* 51(4): 797–825.
- Renaud S (2007) Dynamic efficiency of supervisory board codetermination in Germany. *Labour* 21(4–5): 689–712.
- Richter A and Schrader S (2017) Levels of employee share ownership and the performance of listed companies in Europe. *British Journal of Industrial Relations* 55(2): 396–420.
- Scholz R and Vitols S (2019) Board-level codetermination: A driving force for corporate social responsibility in German companies? *European Industrial Relations Review* 25(3): 233–246.
- Sydow J, Fichter M, Helfen M et al. (2014) Implementation of Global Framework Agreements: Towards a multi-organizational practice perspective. *Transfer: European Review of Labour and Research* 20(4): 489–503.
- Traxler F (1999) The state in industrial relations: A cross-national analysis of developments and socioeconomic effects. *European Journal of Political Research* 36(1): 55–85.
- Traxler F (2002) *Collective Agreement Extension Mechanisms and Practices Examined*. Dublin: European Foundation for the Improvement of Living and Working Conditions. Available at: <https://www.eurofound.europa.eu/publications/article/2002/collective-agreement-extension-mechanisms-and-practices-examined> (accessed 23 February 2021).
- van den Berg A (2004) Ondernemingsraad en Goed Bestuur: een Institutioneel-Economisch Benadering. *Tijdschrift Voor Arbeidsvraagstukken* 20(4): 411–423.
- van den Berg A, van Witteloostuijn A and Van der Brempt O (2017) Employee workplace representation in Belgium: Effects on firm performance. *International Journal of Manpower* 38(2): 130–144.
- Visser J (2019) *ICTWSS Database, Version 6.1*. Amsterdam: Amsterdam Institute for Advanced Labour Studies (AIAS), University of Amsterdam.
- Vitols S (2005) *Prospects for trade unions in the evolving European system of corporate governance*. Report 92. Brussels: ETUI-REHS and HBS.
- Vitols S and Scholz R (2021) Unternehmensmitbestimmung und langfristige Investitionen in deutschen Unternehmen. *WSI-Mitteilungen* 74(2): 87–97.
- Waddington J and Conchon A (2015) *Board-Level Employee Representation in Europe: Priorities, Power and Articulation*. New York, NY: Routledge.
- Wilkinson A, Gollan PJ, Marchington M et al. (eds) *The Oxford Handbook of Participation in Organizations*. Oxford: Oxford University Press.
- Zwick T (2004) Employee participation and productivity. *Labour Economics* 11(6): 715–740.