

Data Base on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts, 1960-2018 (ICTWSS, version 6.1)

Important: this version 6.1 replaces version 6.0 and earlier versions (1-5) with corrected and updated date until and including 2018.

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NOTE In 2020 the database will be continued with the support of the OECD and be rebranded as the OECD/AIAS ICTWSS database, and be made publicly available on the OECD and the AIAS website.

Introduction

The database on *Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts* (ICTWSS) was first released in May 2007 and combined data from various sources and projects with a main focus on trade union development in EU and OECD countries (Ebbinghaus and Visser 2000; Visser 1991; 2006), collective bargaining and employment relations in Europe (EC 2004), and social pacts (Avdagic, Rhodes and Visser 2011). The database has been updated every second or third year, and more variables and countries have been added. The current *corrected* version (ICTWSS 6.1) has been released in October 2019, replaced the earlier version (6.0) released in June and is available at the website of the Amsterdam Institute for Advanced Labour Studies (AIAS) at the University of Amsterdam (<http://www.uva-aias.net/en/ictwss>), which has also hosted the previous versions (1-5) of the database.

Content and organization of the database

The ICTWSS database covers two key elements of modern political economies:

- (i) the organisation and coordination of collective bargaining, wage setting, and social pacts, and
- (ii) the organisation of employers and representation of employees in trade unions and works councils.

The database presents annual data from 1960 through to 2018 on 55 countries: all current OECD and EU members: Australia; Austria; Belgium; Bulgaria; Canada; Chile, Colombia; Costa Rica; Croatia, Cyprus, the Czech Republic; Denmark; Estonia; Germany; Greece; Finland; France; Hungary; Iceland; Ireland; Israel; Italy; Japan; (South) Korea, Latvia; Lithuania; Luxembourg; Malta; Mexico; the Netherlands; New Zealand; Norway; Poland; Portugal; Romania; Spain; Slovakia; Slovenia; Sweden; Switzerland; Turkey; the United Kingdom; and the United States of America – with some additional data for the G20 countries Argentina; Brazil; China; India; Indonesia; Russia Federation; and South Africa; and for Hong Kong, Malaysia, the Philippines, Singapore and Taiwan.

The database contains 234 variables, organized in 11 groups:

- A. Rights of Association, Collective Bargaining and Strikes, private and public sector (var. 1-6);
- B. Wage Setting: state intervention, coordination, centralisation, conflict resolution, indexation, extension, derogation, etc (var. 7-27);
- C. Social Pacts, Central Agreements and Social Dialogue (var. 28-56)
- D. Works Councils and employee representation in the enterprise (var. 57-60)
- E. Sectoral institutions and employer organization, total economy and private sector (var. 61-64)
- F. Number and membership of trade unions and union confederations (26 variables (var. 65-95);

- G. Total and net union membership, bargaining coverage, employment, union density and bargaining coverage rates (var. 96-114)
- H. Membership shares, conflicts and divisions between and within trade union confederations (var. 115-129)
- I. Activities and statutory powers of confederation and main affiliates (var. 130-149)
- J. Measures of union concentration and centralisation (var. 150-155)
- K. Union membership composition and union density rates, by gender, sector, firm size, working hours, employment contract, industry, age, and education (var. 156-234).

This is the sixth version of the database. Version 1 was released in 2007. The biggest changes between this version of the database and the previous version 5.0, released in 2015, are in the sections on wage setting and bargaining coverage. This version of the database has new variables on various aspects of multi-level bargaining (opening clauses, derogation, favourability; peace clauses; conflict resolution instruments; and indexation), and on the activities and powers of union confederations and their main affiliate(s) in industry. Version 6.1 replaces version 6.0, with corrected data and new data for 2018.

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ICTWSS Annotated CODEBOOK

A. Rights (var. 1-6)

(1) RA_m: Right of Association, market sector

- 3 = yes
- 2 = yes, with minor restrictions (e.g. recognition procedures, workplace elections, thresholds)
- 1 = yes, with major restrictions (e.g. monopoly union, prior authorization, major groups excluded)
- 0 = no

(2) RA_g: Right of Association, government sector

- 3 = yes
- 2 = yes, with minor restrictions (e.g., recognition procedures, thresholds, only military, judiciary or police excluded, as per ILO convention)
- 1 = yes, with major restrictions (e.g., monopoly union, government authorization, major groups excluded)
- 0 = no

(3) RCB_m: Right of Collective bargaining, market sector

- 3 = yes
- 2 = yes, with minor restrictions (e.g. registration, thresholds)
- 1 = yes, with major restrictions (e.g. monopoly union, government authorization, limitations on content, major groups excluded)
- 0 = no

(4) RCB_g: Right of Collective bargaining, government sector

- 3 = yes
- 2 = yes, with minor restrictions (e.g. registration, thresholds, only military, judiciary or police excluded – as per ILO convention)
- 1 = yes, with major restrictions (e.g. monopoly union, government authorization, limitations on content, major groups excluded)
- 0 = no

(5) RS_m: Right to Strike, market sector

- 3 = yes
- 2 = yes, with minor restrictions (e.g. recognized union, balloting, proportionality, respect of peace obligation)
- 1 = yes, with major restrictions (e.g. monopoly union, compulsory arbitration or conciliation, restrictions on issues or content, major groups excluded)
- 0 = no

(6) RS_g: Right to Strike, government sector

- 3 = yes
- 2 = yes, with minor restrictions (e.g. recognized union, balloting, proportionality, respect of peace obligation, only military, judiciary or police excluded – as per ILO convention)
- 1 = yes, with major restrictions (e.g. monopoly union, compulsory arbitration or conciliation, restrictions on issues or content, major groups excluded)
- 0 = no

B. Wage setting (var. 7-27)

Coordination and government intervention

Coordination is defined as “the degree to which minor players deliberately follow along with what major players decide” (Kenworthy 2001a:75) and has been widely used as an indicator to assess wage bargaining behaviour and explain wage developments (Soskice 1990; Nickell 1997; OECD 1997, 2004; Traxler and Brandl 2012). Rather than the vertical ordering of wage bargaining, which is prioritised in the concept of centralization, coordination emphasises the horizontal relations or synchronization of pay policies of distinct bargaining units (Soskice 1990;), though surely vertical relations based on authority, power and prestige also play a part.

There are three variables that attempt to capture the presence and degree of coordination: **Coord**, the degree of coordination, **Type**, the type of coordination, and **Govint**, the role of the government in wage bargaining. Various other variables in the database, especially in the section on social pacts and central agreements and in the section on activities and statutory powers of confederations and unions, are related.

(7) Coord: coordination of wage-setting

- 5 = Binding norms regarding maximum or minimum wage rates or wage increases issued as a result of a) centralized bargaining by the central union and employers' associations, with or without government involvement, or b) unilateral government imposition of wage schedule/freeze, with or without prior consultation and negotiations with unions and/or employers' associations.
- 4 = Non-binding norms and/or guidelines (recommendations on maximum or minimum wage rates or wage increases) issued by a) the government or government agency, and/or the central union and employers' associations (together or alone), or b) resulting from an extensive, regularized pattern setting coupled with high degree of union concentration and authority.
- 3 = Procedural negotiation guidelines (recommendations on, for instance, wage demand formula relating to productivity or inflation) issued by a) the government or government agency, and/or the central union and employers' associations (together or alone), or b) resulting from an extensive, regularized pattern setting coupled with high degree of union concentration and authority.
- 2 = Some coordination of wage setting, based on pattern setting by major companies, sectors, government wage policies in the public sector, judicial awards, or minimum wage policies.
- 1 = fragmented wage bargaining, confined largely to individual firms or plants, no coordination

[Refers to the private sector, across branches or sectors; based on Kenworthy (2001a; 2001b). Note that this is an indicator of the “degree, rather than the type, of coordination” (Kenworthy 2001a:78), (...) “based on a set of expectations about which institutional features of wage setting arrangements are likely to generate more or less coordination” (2001a:80).]

(8) Type: Type of coordination of wage setting

- 6 = Government-imposed bargaining (incl. statutory controls in lieu of bargaining)
- 5 = Government-sponsored bargaining (this includes pacts)
- 4 = Inter-associational by peak associations
- 3 = Intra-associational (“informal centralisation”)
- 2 = Pattern bargaining
- 1 = Government sets signals (public sector wages, minimum wage).
- 0 = No specific mechanism identified

[Based on Traxler, Blaschke and Kittel (2001), with an additional code (1) for the government setting signals to wage bargainers through public sector targets or minimum wages. The variable 'Type' stresses the modality or mechanism through which coordination of wage bargaining behaviour is produced, i.e. it is based on behavioural patterns or activities of the major players (unions, employers, governments) involved in wage setting, "regardless of whether these activities were successful in terms of coordination effects" (2001:148). Not that there is no ordinal ranking implied.]

(9) Govint: government intervention in wage bargaining

- 5 = the government imposes private sector wage settlements, places a ceiling on bargaining outcomes or suspends bargaining;
- 4 = the government participates directly in wage bargaining (tripartite bargaining, as in social pacts);
- 3 = the government influences wage bargaining outcomes indirectly through price-ceilings, indexation, tax measures, minimum wages, and/or pattern setting through public sector wages;
- 2 = the government influences wage bargaining by providing an institutional framework of consultation and information exchange, by conditional agreement to extend private sector agreements, and/or by providing a conflict resolution mechanism which links the settlement of disputes across the economy and/or allows the intervention of state arbitrators or Parliament;
- 1 = none of the above.

[Based on Hassel, 2005, p. 75, who re-organised the 15-points scale of Golden, Lange and Wallerstein (2006), into a five-point scale. I have made some changes: a) to make a difference between the case of social pacts or pact negotiations (= 4) and government imposition of wage schedules (= 5), which may occur when pact negotiations or agreements fail; b) to add the role of public sector wage setting (= 3, when public sector settlements are used as pattern setter for private sector wage developments); c) to give more weight to the role of Parliaments or state arbitrators in the settling of disputes (= 2); and d) distinguish the case of non-interventionist governments which favour and facilitate broad sectoral organisations and negotiations (= 2) from the pure liberal or pluralist case of non-intervention and/or a liberal-pluralist regime that actually favours enterprise and/or individual bargaining (= 1).]

Conflict resolution and enforcement of agreements

The following three variables—**Peace**, **CoR**, and **Col**—capture key aspects of bargaining control or the ability of the contracting parties to monitor and secure compliance. Bargaining control involves “the establishment of obligatory standards” and “effective machinery to see that the standards are observed” (Clegg 1976:9) and is an important dimension of collective bargaining, in addition to bargaining coverage. In its 2015 survey of the “building blocks” of collective bargaining, the OECD groups these variable under “enforcement” (Cazes and Garnero 2017). See also the Labour Regulation Index dataset, with data from 1970 (Adams, Bishop and Deakin 2016)

(10) Peace: Do collective agreements imply a peace obligation and/or typically include a peace clause?

- 2 = strikes may not be called over the terms of the collective agreement while the agreement is in force (which implies a peace clause)
- 1= there is no (implicit or explicit) legal obligation, but in practice most (private sector) collective agreements contain a peace clause
- 0= no peace obligation or peace clause

(11) CoR Conflicts of Rights: Do collective agreements typically include a mediation or arbitration procedure for handling grievances?

- 2 = yes, obligatory
- 1 = yes, voluntarily
- 0 = no or very rare.

(12) CoI Conflicts of Interests: Are arbitration or mediation procedures used in case of conflicts of interest (over new agreements or renewal and change of existing or expired collective agreements)?

- 2 = yes, obligatory
- 1 = yes, voluntarily and frequently
- 0 = no or very rare

Centralisation and organisation of multi-level bargaining

The following variables in this group measure various aspects of the (vertical) organisation of collective bargaining over wages and working hours, beginning with the level at which most bargaining takes place, the degree and organisation of multi-level bargaining, the existence of additional enterprise where there are sectoral or cross-sectoral agreements, the articulation across levels, the hierarchical ordering of agreements, the possibility to derogate from the law by agreements, the tightness of agreements in setting wages, and the use of opening clauses in standard and emergency situations.

(13) Level: The predominant level at which wage bargaining takes place (in terms of coverage of employees)

- 5 = bargaining predominantly takes place at central or cross-industry level negotiated at lower levels;
- 4 = intermediate or alternating between central and industry bargaining;
- 3 = bargaining predominantly takes place at the sector or industry level;
- 2 = intermediate or alternating between sector and company bargaining;
- 1 = bargaining predominantly takes place at the local or company level

[A level is 'predominant' if it accounts for at least two-thirds of the total bargaining coverage rate in a given year. If it accounts for less, but for more than one-third of the coverage rate, there is a mixed or intermediate situation, between two levels. A mixed situation also occurs when bargaining levels alternate and/or it is impossible to assess which of the two contributes more to the actual coverage of agreements.]

(14) Combi: the combination of levels at which collective bargaining over wages takes place

- 7 = cross-sectoral (entire economy or private sector, with centrally determined binding norms or ceilings to be respected by all further agreements
- 6 = cross-sectoral (entire economy or private sector) and sectoral, with sectoral agreements that specify, or deviate from, central agreements, guidelines or targets
- 5 = cross-sectoral (entire economy or private sector), sectoral and company, with company agreements that specify/deviate from sector agreements, and sector agreements that specify/deviate from central agreements
- 4 = cross-sectoral (entire economy or private sector) and company, with company agreements that specify/deviate from central agreements
- 3 = sectoral (separate branches of the economy), with sectorally determined binding norms or ceilings to be respected by all further agreements
- 2 = sectoral (separate branches of the economy) and company, with company agreements that specify, or deviate from, sectoral agreements, guidelines or targets
- 1 = enterprise (company, or units thereof).

(15) **BargCent: Centralisation of wage bargaining**

$$(1-5) = [\text{Level} - ((r\text{AEB} * \text{Art}) + \text{FAV} + \text{WSSA} + \text{OCG} + \text{OCT}) / 10].$$

[Starting with the code for the dominant level of bargaining, **BargCent** takes three additional elements into account: the incidence of and control over additional bargaining at enterprise level; the 'space' that central or sectoral agreements assign, delegate or allow for such additional bargaining to take place; and the degree to which agreements can be perforated through the use of 'opening clauses'. The first aspect is captured by the variable **rAEB**, which measures the incidence of additional enterprise bargaining, weighted by it being under control, or not, of the same union(s) that negotiate(s) the 'higher order' agreements (**Art**). The space left to additional bargaining is defined by the 'hierarchical ordering' of agreements (**Fav**), and the tightness of wage norms in central and sectoral agreements (**WSSA**). The variables (**OCG**) and (**OCT**) measure the incidence of general and temporary opening clauses allowing bargainers at company level to negotiate outcomes that]

(16) **rAEB: Reach or incidence of additional enterprise bargaining**

The reach or incidence of additional enterprise bargaining is defined as the proportion of firms and workers *simultaneously* covered by both industry (or cross-industry) and enterprise agreements (not to be confused with single employer bargaining, which is the subject of a later variable, **SEB**).

- 3 = additional enterprise bargaining on wages is common (more than half of employees covered by sector or central agreements are affected)
- 2 = additional enterprise bargaining on wages occurs only in large firms (between 10 and 50 percent of employees covered by sector or central agreements are affected)
- 1 = additional enterprise bargaining on wages is rare even in large firms (less than 10 percent of employees covered by sector or central agreements are affected)
- 0 = no additional enterprise-level bargaining on wages (including cases where it is forbidden)

[Where regional agreements are nested within sector agreements, substituting for additional enterprise bargaining in small firms in sectors like construction, this can be treated as a functional equivalent.]

(17) **Art: Articulation of enterprise bargaining**

Articulation is defined as role differentiation and mutual dependence of negotiators at different bargaining levels. A fully articulated system is one in which "the actions of the centre are frequently predicated on securing the consent of lower levels, and the autonomous action of lower levels is bounded by rules of delegation and scope for discretion ultimately controlled by successively higher levels (Crouch 1993:54-5)."

- 3 = articulated: additional enterprise bargaining on wages is recognized and takes place under control of the 'outside' union, i.e. the signatory or signatories of sector and company agreements come from the same organisation(s) and are bound by the same rules
- 2 = partially articulated: additional enterprise bargaining on wages takes place under control of the (non-union) works council; the signatory or signatories of sector and company agreements are bound by different rules and control of the 'outside' union is partial
- 1 = disarticulated bargaining; additional enterprise bargaining on wages when it happens is, formally or informally, also conducted by non-union bodies and not answerable to or under control of the 'outside' union.

(18) DR Derogation.

Derogation is defined as the possibility to deviate from statutory norms by means of collective agreement and set different and in some cases less favourable standards than those specified in the law on non-wage issues, especially on maximum or minimum working hours and employment protection. Derogation typically applies where the law is semi-mandated.

- 1 = it is possible to derogate from terms established by law (and offer less favourable conditions) by means of collective agreement
- 0 = it is not possible to derogate from the law

(19) FAV: Favourability

Favourability is a cornerstone of collective labour law in many countries, defining the hierarchical relationship of agreements in a multi-level setting and guaranteeing that lower-level agreements can only deviate from higher-level agreements in ways that are favourable for workers. The following codes apply:

- 3 = favourability is inverted, terms in lower level agreements take precedence
- 2 = hierarchy between levels is undefined and a matter for the negotiating parties (not fixed in law).
- 1 = Lower-level agreements must by law offer more favourable terms, but derogation is possible under defined conditions
- 0 = Hierarchy between agreement-levels is strictly applied and defined in law: lower-level agreements can only offer more favourable terms

(20) WSSA: Wage setting in sectoral agreements

Sectoral or national agreements differ in how they regulate wages. Ibsen and Keune (2018) mention (i) *standard agreements*, prescribing wages and working conditions and leaving no or little space to company agreements; (ii) *minimum agreements*, setting minimum standards and leaving the definition of actual wages and working conditions up to company agreements, with the condition that they respect the minimum standards; (iii) *corridor agreements*, defining minimum and maximum levels that have to be respected at company level; (iv) *default agreements*, setting wages and working conditions that come into force only when local parties do not manage to agree on them. Company agreements can hence also set wages and working conditions below the default levels, if negotiators agree; (v) *figureless agreements*, containing no wage standard and leaving wage-setting entirely to the local level and possibly to individuals; and finally, (vi) *mixed agreements*, or a combination of the types above (where, for instance, when agreements set standards on working hours and minimum conditions on wages). These different types imply different levels of decentralisation, with standard agreements the least decentralised and figureless agreements the most. In practice, few 'pure' agreements may exist as even figureless and default agreements include some common standards while standard agreements may include some opportunities for company-level agreements on specific issues.

- 2 = sectoral agreements set the framework or define the default for enterprise bargaining
- 1 = sectoral agreements define the minimum wage level (and minimum rate changes)
- 0 = sectoral agreements define the minimum and actual levels (and rate changes) of wages

[Code 2 is equivalent with default and figureless agreements in the classification of Ibsen and Keune; code 1 with minimum and corridor agreements. In the case of mixed agreements, the coding follows the rules applying to wages. In general, codes apply to the practice in manufacturing industries.]

Opening clauses

The following two variables—**OCG** and **OCT**-- refer to the possibility to 'perforate' sectoral agreements and undercut sectoral standards by means of opening clauses, or temporarily suspend particular clauses in collective agreements or negotiate deviant solutions in case of sudden crisis conditions or financial emergencies. The latter (**OCT**), also called hardship, survival, or opt-out clauses, can also apply to company agreements. General opening clauses (**OCG**) can be used more indiscriminately, for instance to improve the competitive position of the company, and usually only require an agreement between management and the workers, represented through the union, the works council or some other form of representation (see 'articulation').

(21) OCG: Opening clauses in sectoral collective agreements.

- 2 = sectoral agreements contain opening clauses, allowing the renegotiation of contractual wages at enterprise level
- 1 = sectoral agreements contain opening clauses, allowing the renegotiation of contractual non-wage issues (working time, schedules, etc) at enterprise level
- 0 = agreements contain no opening clauses

(22) OCT: Crisis-related, temporary opening clauses in collective agreement

- 1 = agreements (at any level) contain crisis-related opening clauses, defined as temporary changes, renegotiation or suspension of contractual provisions, under defined hardship conditions
- 0 = agreements contain no opening clauses

Indexation, extension and duration

Three more variables are relevant for wage bargaining, especially in relation to coordination and coverage—indexation, administrative extension and duration or length of agreements.

(23) Index: general price indexation or cost-of-living clauses in agreements

- 1 = (most or many) collective agreements contain (sem-) automatic index or cost-of-living escalator clauses, linking wages to prices.
- 0 = use of index clauses is rare or forbidden

(24) Ext: Mandatory extension of collective agreements to non-organised employers

- 3 = extension is virtually automatic and more or less general (including enlargement)
- 2 = extension is used in many industries, but there are thresholds and Ministers can (and sometimes do) decide not to extend (clauses in) collective agreements
- 1 = extension is rather exceptional, used in some industries only, because of absence of sector agreements, very high thresholds (supermajorities of 60_ or more, public policy criteria, etc.), and/or veto powers of employers
- 0 = there are neither legal provisions for mandatory extension, nor is there a functional equivalent.

[Extension is a legal act in which (clauses in) a collective agreement negotiated between one or more unions and one or more employers' associations is (are) declared binding on firms that are not member of the contracting parties (Hayter and Visser 2018). Extension as defined here does not include employers who, by custom and practice, orient their pay policies on the collective agreement of organised firms. Functional equivalents vary in their applicability and include: mandatory membership of employers' associations (Austria); judicial awards (New Zealand before 1991; Australia, scaled down since 1992; Italy based on court rulings on minimum pay scales].

(25) Length: Length or duration of collective (wage) agreements

(1- ∞) average length of (wage clauses in) collective agreements, in months.

Minimum wage

(26) NMW: National Minimum Wage

- 2 = Statutory national (cross-sectoral or inter-occupational) minimum wage exists.
- 1 = Statutory minimum wage in some sectors (occupations, regions/states) only
- 0 = No statutory minimum wage.

(27) NMS: Minimum Wage Setting

- 0 = No statutory minimum wage, no sectoral or national agreements
- 1 = Minimum wages are set by (sectoral) collective agreement or tripartite wage boards in (some) sectors;
- 2 = Minimum wages are set by national (cross-sectoral or inter-occupational) agreement ("autonomous agreement") between unions and employers;
- 3 = National minimum wage is set by agreement (as in 1 or 2) but extended and made binding by law or Ministerial decree;
- 4 = National minimum wage is set through tripartite negotiations;
- 5 = National minimum wage is set by government after (non-binding) tripartite consultations;
- 6 = Minimum wage set by judges or expert committees, as in award-system;
- 7 = Minimum wage is set by government, bound by a fixed rule (index-based minimum wage);
- 8 = Minimum wage is set by government based on a fixed rule (index-based minimum wage) or target (growth, employment, poverty), but government can (and sometimes does) take a discretionary decision;
- 9 = Minimum wage is set by government, without a fixed rule.

[Note: this coding reflects the (increasing) degree of government intervention and discretion in setting the minimum wage, or – reversely – the degree to which the government is bound in its decisions by unions and employers, and/or a fixed or pre-determined rule.]

C. Social Pacts and Agreements (var. 28-56)

The section on social pacts, agreements and social dialogue codes the negotiation and signing of pacts and agreement, the actors involved, their content and importance, and some general features of social dialogue institutions (councils) and practices (consultation with the government). Social pacts are defined as “publicly-announced formal policy contracts between the government and social partners on incomes, labour market or welfare policies that identify explicit policy issues and goals, the means to achieve them, and designate the tasks and responsibilities of the signatories.” (Avdagic, Rhodes and Visser 2011).

(28) PactNeg: A social pact is (publicly) being proposed by the government, the unions or the employers, and negotiations do take place in specified year

- 0 = no
 - 1 = yes
 - 2 = two pacts in same year
 - 3 = three pacts in same year
- etcetera*

(29) PactSign: A (tripartite) social pact between the government, the unions and the employers, or between the government and the unions, is signed in specified year

- 0 = no
 - 1 = yes
 - 2 = two pacts in same year
 - 3 = three pacts in same year
- etcetera*

[Social pacts are defined as “publicly announced formal policy contracts between the government and social partners over income, labour market or welfare policies that identify explicitly policy issues and targets, means to achieve them, and tasks and responsibilities of the signatories” (Avdagic, Rhodes and Visser, 2011: 11). This excludes a) tacit understandings or agreements that are not publicly announced, b) bilateral agreements between employers’ organizations and trade unions that do not involve the government as negotiating party, even if implementation requires legislative action or government support .and c) so-called symbolic or declaratory pacts that do not commit the negotiating parties to specific tasks and responsibilities].

(30) AgrSign: A (nation-wide) agreement between the central organisations of the trade unions and the employers is reached and signed in specified year

- 0 = no
 - 1 = yes
 - 2 = two agreements in same year
 - 3 = three agreements in same year
- etcetera*

(31) Aut-W: The (central) agreement is autonomously negotiated and implemented by the unions and the employers’ organisations, and includes a settlement on wages and/or the procedures for wage negotiations and dispute settlement

- 0 = no
 - 1 = yes
 - 2 = two agreements in same year
 - 3 = three agreements in same year
- etcetera*

(32) Aut-NW: The (central) agreement is autonomously negotiated and implemented by the unions and the employers' organisations, and does only regard non-wage issues

- 0 = no
- 1 = yes
- 2 = two agreements in same year
- 3 = three agreements in same year
etcetera

(33) Sponsor-W: The (central) agreement is negotiated and implemented by the unions and the employers' organisations and includes a settlement on wages

- 0 = no
- 1 = yes
- 2 = two agreements in same year
- 3 = three agreements in same year
etcetera

(34) Sponsor-NW: The (central) agreement is autonomously negotiated and implemented by the unions and the employers' organisations, and includes a settlement on wages

- 0 = no
- 1 = yes
- 2 = two agreements in same year
- 3 = three agreements in same year
etcetera

(35) All: All pact and (central) agreements signed in a given year

= Sum of Pactsign + Agrsign

(36) PactStructure: Pact or agreement is negotiated by all or some of the (possible) actors

- 0 = No pact or agreement
- 1 = Pact is negotiated by government, all (mainstream) union confederations and employers peak associations
- 2 = Pact is negotiated without major (mainstream) union(s)
- 3 = Pact is negotiated without major (mainstream) employers association(s).
- 4 = Pact is negotiated between unions and employers, but with heavy involvement of the government in negotiations ("shadow of hierarchy", threats, side-payments)
- 5 = Agreement is negotiated between unions and employers, but implemented through legislation (or prepared for legislation)
- 6 = Agreement is negotiated between unions and employers and implemented without government involvement or legislation ("autonomous agreement")

[On a strict definition of pacts as tripartite agreements, only 1-3, possibly 1-4 constitute social pacts, whereas 5-6, whatever their importance, do not]

(37) Pactscope: Scope of social pact

- 0 = no pact
- 1 = narrow pacts, dealing with one issue and not extending into lower-level (firm or public administration) decision making.
- 2 = broad pacts, dealing with several issues.
- 3 = pact is declaratory or symbolic e.g. declares that henceforth concertation shall apply, etc.)

(38) Pacttype: Type of social pact

- 0 = no pact
- 1 = tax-based incomes policy
- 2 = regulatory or reform pact
- 3 = neither category, unknown or symbolic

(39) Wage: pact or agreement is about wage issues

- 0 = No
- 1 = Yes

(40) Non-Wage: pact or agreement is about non-wage issues

- 0 = No
- 1 = Yes

(41) PactApplies: Wage clause in pact applies in specified year (if pact covers more than one year, or when pacts negotiated in year t are valid in year $t+1$)

- 0 = No
- 1 = Yes

(42) AgrApplies: Wage clause in central agreement applies in specified year (if agreement covers more than one year, or will be implemented in next year)

- 0 = No
- 1 = Yes

(43) Wage_Proc: pact or agreement is about procedure for wage setting: articulation of levels, conflict procedures, etc.

- 0 = No
- 1 = Yes

(44) Wage_Max: pact or agreement contains a norm or ceiling regarding maximum wage rise

- 0 = No
- 1 = Yes

(45) Tax_Budget: Pact or agreement contains, and/or is predicated on, concessions (or promises) regarding taxation and/or budgetary decisions

- 0 = No
- 1 = Yes

(46) Work_Hrs: Pact or agreement contains, and/or is predicated on, concessions (or promises) regarding working hours

- 0 = No
- 1 = Yes

(47) Empl_Pol: Pact or agreement contains, and/or is predicated on, concessions (or promises) regarding employment policies (job creation, subsidies, etc.)

- 0 = No
- 1 = Yes

(48) Empl_leg: Pact or agreement contains, and/or is predicated on, concessions (or promises) regarding employment protection legislation (labour law)

0 = No
1 = Yes

(49) Soc_Sec: Pact or agreement contains, and/or is predicated on, concessions (or promises) regarding social security (unemployment, sickness, disability, family or children allowances)

0 = No
1 = Yes

(50) Pensions: Pact or agreement contains, and/or is predicated on, concessions (or promises) regarding (old age, retirement) pensions

0 = No
1 = Yes

(51) Training: Pact or agreement contains, and/or is predicated on, concessions (or promises) regarding vocational training

0 = No
1 = Yes

(52) Union_rights: Pact or agreement contains, and/or is predicated on, concessions (or promises) regarding union representation, recognition rights, including employee representation, works councils, bargaining rights, etc.

0 = No
1 = Yes

(53) Concert: Pact or agreement sets up or changes nation-wide councils for concertation.

0 = No
1 = Yes

(54) TC: existence of a (institutionalized) tripartite council concerning social and economic policy (private sector).

2 = tripartite council with representation from the trade unions, employers' associations, and independent experts or government (-appointed) representatives;
1 = council with various societal interest representatives, including unions and employers;
0 = no permanent council.

(55) BC: existence of a (institutionalised) bipartite council of central or major union and employers organizations for purposes of wage setting, economic forecasting and/or conflict settlement.

1 = yes;
0 = no.

(56)RI: routine involvement of unions and employers in government decisions on social and economic policy.

2 = full concertation, regular and frequent involvement;
1 = partial concertation, irregular and infrequent involvement;
0 = no concertation, involvement is rare or absent

D. Works councils and employee representation in the enterprise (var. 56-60)

(57) WC: status of works council

- 2 = existence and rights of works council or structure for (union and non-union-based) employee representation within firms or establishments confronting management are mandated by law or established through basic general agreement between unions and employers;
- 1 = works councils (etc.) are voluntary, i.e. even where they are mandated by law, there are no legal sanctions for non-observance
- 0 = works council or similar (union or non-union) based institutions of employee representation confronting management do not exist or are exceptional.

(58) WC_struct: structure of works council representation

- 4 = single-channel works councils, union-based representation, elected by union members or established by union, based on law or national agreement
- 3 = dual-channel works councils, union dominated representation, elected by union and non-union members, based on law or national agreement
- 2 = split-channel works councils, employee elected works councils are mandatory where there is no or insufficient union representation, as a structure supplementary to the union, based on law or national agreement
- 1 = single-channel works councils, union-based representation, established by local agreement, no legal provisions for representation if no union is present or recognized;
- 0 = works council or similar (union or non-union) based institutions of employee representation confronting management do not exist or are exceptional.

(59) WC_rights: rights of works councils

- 3 = economic and social rights, including codetermination on some issues (e.g., mergers, take-overs, restructuring, etc.)
- 2 = economic and social rights, consultation (advice, with possibility of judicial redress)
- 1 = information and consultation rights (without judicial redress)
- 0 = works council or similar (union or non-union) based institutions of employee representation confronting management do not exist or are exceptional.

(60) WC_negot: involvement of works councils (or similar structures) in wage negotiations

- 4 = works councils (or mandated representatives) formally negotiate (plant-level) collective agreements, alongside or instead of trade unions.
- 3 = works councils (or mandated representatives) formally negotiate (plant-level) collective agreements, if no union is present (and/or subject to ballot)
- 2 = works councils is formally (by law or agreement) barred from negotiating (plant-level) agreements, but informally negotiate over workplace-related working conditions or 'employment pacts', including pay
- 1 = works councils is formally (by law or agreement) barred from negotiating (plant-level) agreements and involvement of works councils in negotiating (plant-level) agreements is rare.
- 0 = does not apply; works councils or similar (union or non-union) based institutions of employee representation confronting management do not exist or are exceptional.

E. Sectoral institutions and employer organization (var. 61-64)

(61) SECTOR: sectoral organization of employment relations

- 2 = strong institutions (both employers and unions, some joint institutions)
1 = medium (only one side, no joint institutions)
0 = weak, or none.

(62) NECFs: Number of Employers' Confederations (Organisations)

- (1-∞) = number of employers' confederations (organisations in agriculture are excluded)

(63) ED: Employers' organisation density, as a proportion of employees in employment

- (0-100) = workers and salaried employees in firms organised in employers' organisations as a proportion of all wage and salary earners in employment (WSEE)

(64) EDpriv: Employers' organisation density in the private sector, as a proportion of employees in private sector employment

- (0-100) = workers and salaried employees in private sector firms organised in employers' organisations as a proportion of all wage and salary earners employed in the private sector (WSEE_private)

F. Number and membership of unions and confederations (var 65-95)

(65) NUCFs: Number of Union Confederations

- (1-∞) = number of confederations (very small confederations are ignored and counted as part of the independent, autonomous or unaffiliated union membership; as a rule NCFs counts only central organisations, that have affiliate unions and membership that exceeds five percent of total union membership in the country)

(66) ENCFs: Effective Number of Union Confederations

- (1-∞) = effective number of confederations, defined as the inverse of the Herfindahl-index or $1/H$. The Herfindahl (H) index is given by $H_{CF} = \sum_i^n (p_i^2)$, where p_i is the proportion of total membership organised by the i^{th} confederation and n is the total number of confederations. By discounting the weight of smaller confederations (achieved through the squaring method), the H_{CF} index conveys an idea of the actual degree of concentration at the central or peak level in a given country. The effective number of confederations $ENCFs$ is equal to the probability that any two union members are in the same confederation and thus a measure of the degree of fragmentation or unity at the central (political) level (see Iversen, 1999: 53; Visser, 1990: 172).

(67) CF1_name: Name of confederation 1 (usually largest, or oldest)

(68) NAffCF1: Number of affiliates of confederation 1

- (0-∞) = number of affiliated unions to confederation 1 (only national unions or federations)

(69) ENAffCF1: Effective number of affiliates of confederation 1

- (1-∞) = effective number of affiliates, defined as the inverse of the Herfindahl-index or $1/H$. The Herfindahl (H) index is given by $H_{aff} = \sum_i^n (p_i^2)$, where p_i is the

proportion of total membership organised by the l^{th} affiliate and n is the total number of affiliates. By discounting the weight of the many smaller affiliates (achieved through the squaring method), the H-index conveys an idea of the actual degree of concentration within the confederation. The effective number of affiliates in the first or main confederation ENAffCF1 is equal to the probability that any two union members are in the same union (affiliate) and thus a measure of the degree of fragmentation or unity in bargaining if that takes place at the sectoral level. We may also think of the effective number of unions or affiliates in the main confederation as the effective number of bargaining units (see Iversen, 1999: 53; Visser, 1990: 172). This number is indicative of the total number of the bargaining units in a country, especially if we assume that there is joint or majority bargaining in countries with unions divided between different union confederations.

(70) MemCF1: Total membership of unions affiliated to confederation 1 (usually largest)

(0-∞) = sum of members of affiliates in confederation 1

(71) CF2_name: Name of confederation 2

(72) NAffCF2: Number of affiliates of confederation 2

(0-∞) = number of affiliated unions to confederation 2 (only national unions or federations)

(73) MemCF2: Total membership of unions affiliated to confederation 3

(0-∞) = sum of members of affiliates in confederation 3

(74) CF3_name: Name of confederation 3

(75) NAffCF3: Number of affiliates of confederation 3

(0-∞) = number of affiliated unions to confederation 2 (only national unions or federations)

(76) MemCF3: Total membership of unions affiliated to confederation 3

(0-∞) = sum of members of affiliates in confederation 3

(77) CF4_name: Name of confederation 4

(78) NAffCF4: Number of affiliates of confederation 4

(0-∞) = number of affiliated unions to confederation 4 (only national unions or federations)

(79) MemCF4: Total membership of unions affiliated to confederation 4

(0-∞) = sum of members of affiliates in confederation 4

(80) CF5_name: Name of confederation 5

(81) NAffCF5: Number of affiliates of confederation 5

(0-∞) = number of affiliated unions to confederation 5 (only national unions or federations)

(82) MemCF5: Total membership of unions affiliated to confederation 5

(0-∞) = sum of members of affiliates in confederation 5

(83) CF6_name: Name of confederation 6

(84) NAffCF6: Number of affiliates of confederation 6

(0-∞) = number of affiliated unions to confederation 6 (only national unions or federations)

- (85)MemCF6: Total membership of unions affiliated to confederation 6**
 (0-∞) = sum of members of affiliates in confederation 6
- (86)CF7_name: Name of confederation 7**
- (87)NAffCF7: Number of affiliates of confederation 7**
 (0-∞) = number of affiliated unions to confederation 7 (only national unions or federations)
- (88)MemCF7: Total membership of unions affiliated to confederation 7**
 (0-∞) = sum of members of affiliates in confederation 7
- (89)CF8_name: Name of confederation 8**
- (90)NAffCF8: Number of affiliates of confederation 8**
 (0-∞) = number of affiliated unions to confederation 8 (only national unions or federations)
- (91)MemCF8: Total membership of unions affiliated to confederation 8**
 (0-∞) = sum of members of affiliates in confederation 8
- (92)NindU: Number of Independent (Not-affiliated) Unions**
 (0-∞) = number of unaffiliated or independent unions (only national unions or federations)
- (93)MindU: Membership of Independent Unions**
 (0-∞) = sum of members of independent or unaffiliated unions
- (94)TNUnions: Total Number of Unions**
 (0-∞) = $\sum \text{NAffCF}_{1-8} + \text{NindU}$
- (95)ETNUnions: Effective Number of Unions**
 1-∞) = effective number of unions, defined as the inverse of the Herfindahl-index or $1/H$. The Herfindahl (H) index is given by $H_{CF} = \sum_i^n (p_i^2)$, where p_i is the proportion of total membership organised by the i^{th} union and n is the total number of unions. ETNUnions is approximated by multiplying the effective number of confederations and the effective number of affiliates in the main confederations, thus $\text{ETNUnion} = \text{ENUCFs} * \text{ENAffCF1}$. Rather than the total number of unions, this would give an idea of union fragmentation and the number of bargaining units in the country, where confederations bargain separately.

G. Total union membership, bargaining coverage, employment, union density and bargaining coverage rates (var. 96-114)

(96)TUM: Total Union Membership

(1-∞) = $\sum \text{MemCF}_{1-8} + \text{MindU}$

(97)NUM: Net Union Membership

(1-∞) = TUM *minus* union members outside the active, dependent and employed labour force (i.e. retired workers, independent workers, students, unemployed, see Ebbinghaus and Visser, 2000; Visser, 1991, 2006).

(98)NUM_s: Union Membership as based on (national) household of labour force survey

(1-∞) = union members among the dependent employed labour force

(99) WCB_new: Workers covered by (new) collective agreements negotiated in the particular year

(1-∞) = number of employees covered by collective agreements or statutory regulation.

(100) WCB: Workers covered by (old and new) collective agreements, including agreements negotiated in earlier years but still valid

(1-∞) = number of employees covered by collective agreements.

(101) Wstat: Workers covered by statutory regulation and excluded from collective bargaining

(1-∞) = number of employees covered by statutory regulation and excluded from collective bargaining.

(102) WSEE: Wage and Salary Earners in Employment

(0-∞) = employed wage and salary workers, source (unless stated otherwise): OECD, *Labour Force Statistics (Eurostat or ILOSTAT)*.

(103) WSEE_s: Wage and Salary Earners in Employment, survey data

(0-∞) = employed wage and salary workers, source (data derived from household or labour force surveys)

(104) UD: Union density rate, net union membership as a proportion of wage and salary earners in employment

(0-100) = $\text{NUM} * 100 / \text{WSEE}$

(105) UD_s: Union density rate, net union membership as a proportion wage and salary earners in employment, as in national household or labour force surveys

(0-100) = $\text{NUM}_{\text{survey}} * 100 / \text{WSEE}_{\text{survey}}$

(106) UnionCov: Union coverage of workplaces or establishments

(0-100) = employees in workplaces or establishments covered by unions or works councils as a proportion of all wage and salary earners in employment,

(107) SEB: Single Employer Bargaining

(0-100) = employees covered by firm- or enterprise-level agreements

- (108) MEB: Multi Employer Bargaining**
 (0-100) = employees covered by multi-employer agreements (for groups of companies, sectors or occupations, either at local, regional or national level)
- (109) ExtE: Estimate of coverage due to extension**
 (0-100) = employees covered as a result of extension orders to non-organized employers
- (110) UnadjCov: Unadjusted bargaining (or union) coverage rate**
 (0-100) = employees covered by valid collective (wage) bargaining agreements as a proportion of all wage and salary earners, = $WCB*100/WSEE$
- (111) AdjCov: Adjusted bargaining (or union) coverage rate**
 (0-100) = employees covered by valid collective (wage) bargaining agreements as a proportion of all wage and salary earners in employment with the right to bargaining, expressed as percentage, adjusted for the possibility that some sectors or occupations are excluded from the right to bargain = $WCB*100/(WSEE-WStat)$.
- (112) newCov: Bargaining coverage rate of newly concluded agreements**
 (0-100) = employees covered by new collective (wage) bargaining agreements that have been concluded or renewed in a particular year, as a proportion of all wage and salary earners in employment = $WCB_{new}*100/WSEE$
- (113) CovPriv: Bargaining (or Union) Coverage, private or market sector**
 (0-100) = employees in the private or market sector covered by collective (wage) bargaining agreements as a proportion of all wage and salary earners in employment in the private or market sector.
- (114) CovPub: Bargaining (or Union) Coverage, public or government sector**
 (0-100) = employees in the public or government sector covered by collective (wage) bargaining agreements as a proportion of all wage and salary earners in employment in the public or government sector. [The public sector is defined here as the sections O, P and Q of the statistical classification of economic activities of the European Community NACE Rev.2, These Sections include respectively: Public administration and Defence, Compulsory Social Security; Education; Human Health and Social Work activities. This is close to what the OECD (Glossary of Statistical Terms, 1997) defines as government sector including “government (financed) corporations”.

H. Membership shares, conflicts and divisions between and within trade union confederations (var. 115-129)

- (115) ShCF1: Membership share of CF1 (Confederation 1)**
(0-1) = fraction p_1 of the membership in confederation 1 in the total membership (TUM)
- (116) ShCF2: Membership share of CF2 (Confederation 2)**
(0-1) = fraction p_{2-8} of the membership in confederation 2 in the total membership (TUM)
- (117) ShCF3: Membership share of CF3 (Confederation 3)**
(0-1) = fraction p_{2-8} of the membership in confederation 3 in the total membership (TUM)
- (118) ShCF4: Membership share of CF4 (Confederation 4)**
(0-1) = fraction p_{2-8} of the membership in confederation 4 in the total membership (TUM)
- (119) ShCF5: Membership share of CF5 (Confederation 5)**
(0-1) = fraction p_{2-8} of the membership in confederation 5 in the total membership (TUM)
- (120) ShCF6: Membership share of CF6 (Confederation 6)**
(0-1) = fraction p_{2-8} of the membership in confederation 6 in the total membership (TUM)
- (121) ShCF6: Membership share of CF7 (Confederation 7)**
(0-1) = fraction p_{2-8} of the membership in confederation 7 in the total membership (TUM)
- (122) ShCF8: Membership share of CF8 (Confederation 8)**
(0-1) = fraction p_{2-8} of the membership in confederation 8 in the total membership (TUM)
- (123) DIV-pol Divisions across confederations are politically (religiously, ethnically, linguistically) motivated**
1 = yes
0 = no
- (124) DIV-econ Divisions across confederations are economically (education, status, rank) motivated**
1 = yes
0 = no
- (125) Div-sector Divisions across confederations are sectorally (private versus public) motivated**
1 = yes
0 = no
- (126) Div-region Divisions across confederations are regionally based**
1 = yes
0 = no
- (127) AFF-dem: demarcation between affiliates (national) is based on**
1 = industry
2 = occupation (status, education, skills)
3 = industry and occupation (status, education, skills)
4 = industry, occupation and general
5 = enterprises (companies)
6 = varying (differs per confederation and sector)

(128) ExtConflict: Conflict between union confederations

- 3 = sharp conflict and competition for members and influence (separate bargaining)
- 2 = moderate conflict and limited competition (occasional separate bargaining)
- 1 = no conflict, routine cooperation (joint bargaining and representation)

(129) IntConflict: Internal demarcations within union confederations

- 3 = sharp conflict and competition over policies and members (multiple unions within same plant or company)
- 2 = moderate conflict with limited competition over policies and members (single union representation or joint bargaining where there are two or more affiliates)
- 1 = no conflict.

I. Activities and statutory powers of confederation and main affiliates (var. 130-149)

This section and especially the part on the authority and powers of confederations and union affiliates in (metal) industries relies very heavily on the methodology and data presented by Golden and Lange (1996) and Golden, Lange, and Wallerstein (2006), and Windmuller (1975). For a recent presentation of the issues involved and a comparison: Visser 2019.

(130) CFwage: Confederation negotiates binding national (cross-sector) wage agreements (bipartite or tripartite)

- 1 = yes (if AUT-W or SPONSOR-W or WAGE \neq 0)
- 0 = no (if AUT-W or SPONSOR-W or WAGE = 0)

(131) CFnonwage: Confederation negotiates binding national (cross-sectoral) non-wage agreements (bipartite or tri partite)

- 1 = yes (if AUT-NW or SPONSOR-NW or NONWAGE \neq 0)
- 0 = no (if AUT-NW or SPONSOR-NW or NONWAGE = 0)

(132) CFcoord: Confederation coordinates wage bargaining of affiliates (across sectors)

- 1 = yes
- 0 = no

(133) CFrep: Confederation represents affiliates in national economic and social council (or similar bodies)

- 1 = yes
- 0 = no

(134) CFconsult: Confederation is routinely consulted by the government on social and economic policy issues

- 1 = yes
- 0 = no

- (135) **UNwage: Union negotiates national (or regional) sectoral collective agreements (wage and non-wage terms)**
 1 = yes
 0 = no
- (136) **UNnonwage: Union negotiates national (or regional) sectoral collective agreements (only non-wage terms)**
 1 = yes
 0 = no
- (137) **UNcoord: Union coordinates wage bargaining across enterprise units**
 1 = yes
 0 = no
- (138) **CFappt: confederation appoints, or can veto, directly or through government approval, the leaders of their affiliates**
 1 = yes
 0 = no
- (139) **CFagr: confederation can veto or preempt through central agreement wage bargaining of affiliates**
 1 = yes
 0 = no
- (140) **CFfin: confederation collects dues and reimburses affiliates**
 1 = yes
 0 = no
- (141) **CFfund: confederation has a significant strike or resistance fund, or controls the fund jointly held by unions, from which member unions are reimbursed**
 1 = yes
 0 = no
- (142) **CFveto: confederation can veto or end strikes by their affiliates (prior approval or central settlement procedure)**
 1 = yes
 0 = no
- (143) **CFpower: statutory power of confederation over its affiliates**
 (0-1): sum over CFappt, CFagr, CFfin, CFfund and CFveto, divided by maximum score of 5
- (144) **UNappt: union appoint or can veto workplace representatives (shop stewards, delegates)**
 1 = yes
 0 = no
- (145) **UNagr: union can veto or, participates in, wage bargaining at enterprise level**
 1 = yes
 0 = no

(146) UNfin: national union collects dues and reimburses local and workplace branches

1 = yes

0 = no

(147) UNfund: union owns a significant strike fund from which members or workplace units are reimbursed

1 = yes

0 = no

(148) UNveto: union can veto or end enterprise strikes (prior approval or central settlement procedure)

1 = yes

0 = no

(149) UNpower: statutory power of the union over its local or workplace branches and representatives.

(0-1): sum over UNappt, UNagr UNfin, UNfund and UNveto, divided by maximum score of 5.

J. Measures of union concentration and centralisation (var. 150-155)

The measures of union concentration and centralisation follows the methodology proposed by Iversen (1999) and combines data on the concentration or fragmentation of trade unions with information on the division of authority in the union movement between confederations (or peak associations), affiliated unions, and local or workplace branches (Visser, 1990; Windmuller, 1975).

(150) CONCconf: Membership concentration at confederal level (Herfindahl index calculated over membership shares of confederations or peak associations)

(0-1) given by $\sum_i^n (p_i^2)$, where p_i is the proportion of total membership organised by the i^{th} confederation and n is the total number of confederations.

(151) CONCunion: Membership concentration at union level (Herfindahl index calculated over membership shares of affiliated within the main confederation)

(0-1) = given by $\sum_i^n (p_i^2)$, where p_i is the proportion of total membership organised by the i^{th} affiliate and n is the total number of affiliates. $\sum_{Aff1}^n (p_i^2)$, where p denotes the fraction of total membership organised by the i^{th} affiliate and n is the total number of affiliates. This variable measures the degree of concentration or fragmentation regarding bargaining units at the industry or occupational level.

(152) CENTconf: Summary measure of formal authority of unions regarding wage setting at peak and sectoral level

(0-1) = $\sqrt{CFpower * CONCconf}$

(153) CENTunion: Summary measure of concentration of unions at peak and sectoral level

(0-1) = $\sqrt{UNpower * CONCunion}$

(154) CENT : Summary measure of centralisation of wage bargaining

(0-1) = $CENTconf + CENTunion$

weighting the degree of authority or vertical coordination in the union movement and union concentration or horizontal coordination, taking account of multiple levels at which bargaining can take place and assuming a non-zero division of union authority over different levels (see Visser, 1990; Iversen, 1999). Taking the square root serves to magnify the differences at the low end of this scale (CF. Iversen, 1999: 53)

(155) CENTratio: ratio of centralisation of confederation versus affiliates

(0-1) = $CENTconf / CENTunion$

K. Union membership composition and union density rates, by gender, sector, firm size, working hours, employment contract, industry, age, and education (var. 156-234).

- (156) **UM_fem:** Percentage share of female union members
- (157) **UD_fem:** Union density rate of females
- (158) **UD_male:** Union density rate of males
- (159) **UM_part-time:** Percentage share of part-time union membership
- (160) **UD_part-time:** Union density rate of part-time workers
- (161) **UD_fulltime:** Union density rate of fulltime workers
- (162) **UM_temp:** Percentage share of union members on temporary or fixed duration contracts
- (163) **UD_temp:** Union density rate of temporary workers
- (164) **UD_permanent:** Union density rate of permanent workers, i.e. workers employed under open-ended contracts
- (165) **UM_manual:** Percentage share of manual (blue-collar) union members
- (166) **UD_manual:** Union density rate of manual (blue-collar) workers
- (167) **UD_nonmanual:** Union density rate of non-manual (white-collar) workers
- (168) **UM_skilled:** Percentage share of skilled union members
- (169) **UD_skilled:** Union density rate of skilled workers
- (170) **UD_unskilled:** Union density rate of unskilled workers
- (171) **UM_public:** Percentage share of union members in the public sector
- (172) **UD_public:** Union density rate of public sector workers
- (173) **UD_private:** Union density rate of private sector worker
- (174) **UM_small:** Percentage share of union members in firms with 10 or less employees
- (175) **UM_medium:** Percentage share of union members in firms with 11-99 employees
- (176) **UM_large:** Percentage share of union members in firms with 100 or more employees

- (177) **UD_small:** Union density rate in firms with 10 or less employees
- (178) **UD_medium:** Union density rate in firms with 11-99 employees
- (179) **UD_large:** Union density rate of workers with 100 or employees
- (180) **UM_foreign-born:** Percentage share of foreign-born union members
- (181) **UD_native:** Union density rate of native workers
- (182) **UD_foreign-born:** Union density rate of foreign-born workers
- (183) **UM_agr:** Percentage share of union members in agriculture
- (184) **UM_ind:** Percentage share of union members in industry
- (185) **UM_serv:** Percentage share of union members in services
- (186) **UM_mining:** Percentage share of union members in mining
- (187) **UM_manuf:** Percentage share of union members in manufacturing
- (188) **UM_metal:** Percentage share of union members in metal manufacturing
- (189) **UM_util:** Percentage share of union members in utilities (gas, water and electricity)
- (190) **UM_construct:** Percentage share of union members in construction
- (191) **UM_trade:** Percentage share of union members in trade and commerce
- (192) **UM_hotels:** Percentage share of union members in hotels, restaurants and catering
- (193) **UM_transport:** Percentage share of union members in transport and communication
- (194) **UM_finance:** Percentage share of union members in financial services (banking and insurance)
- (195) **UM_buss&re:** Percentage share of union members in business services and real estate
- (196) **UM_commercial:** Percentage share of union members in commercial services (trade, hotels, transport, finance and business services)
- (197) **UM_social:** Percentage share of union members in social and community services (incl. public sector)
- (198) **UM_publadmin:** Percentage share of union members in public administration (and defence)
- (199) **UM_educ:** Percentage share of union members in education

- (200) **UM_health:** Percentage share of union members in health services and social work
- (201) **UM_otherserv:** Percentage share of union members in other services (leisure, culture, household)
- (202) **UD_agr:** Union density rate in agriculture
- (203) **UD_ind:** Union density rate in industry
- (204) **UD_serv:** Union density rate in services
- (205) **UD_mining:** Union density rate in mining
- (206) **UD_manuf:** Union density rate in manufacturing
- (207) **UD_metal:** Union density rate in metal manufacturing
- (208) **UD_util:** Union density rate in utilities (gas, water and electricity)
- (209) **UD_construct:** Union density rate in construction
- (210) **UD_trade:** Union density rate in trade and commerce
- (211) **UD_hotels:** Union density rate in hotels, restaurants and catering
- (212) **UD_transport:** Union density rate in transport and communication
- (213) **UD_finance:** Union density rate in financial services (banking and insurance)
- (214) **UD_buss&re:** Union density rate in business services and real estate
- (215) **UD_commerce:** Union density rate in commercial services (trade, hotels, transport, finance and business services)
- (216) **UD_socialserv:** Union density in social and community services (incl. public sector)
- (217) **UD_publadmin:** Union density in public administration (and defence)
- (218) **UD_educ:** Union density in education
- (219) **UD_health:** Union density in health services and social work
- (220) **UD_otherserv:** Union density in other services (leisure, culture, household)
- (221) **UM_15-24:** Percentage share of union members aged 15-24
- (222) **UM_25-54:** Percentage share of union members aged 25-54

- (223) **UM_55-64:** Percentage share of union members aged 55-64
- (224) **UM_65_more:** Percentage share of union members aged 65 and older
- (225) **UD_15-24:** Union density rate of workers aged 15-24
- (226) **UD_25-54:** Union density rate of workers aged 35-54
- (227) **UD_55-64:** Union density rate of workers aged 55-64
- (228) **UD_65_more:** Union density rate of workers aged 65 and older
- (229) **UM_Educ1:** Percentage share of union members with (or below) primary level education
- (230) **UM_Educ2:** Percentage share of union members with secondary level education
- (231) **UM_Educ3:** Percentage share of union members with tertiary (or higher) level education
- (232) **UD_Educ1:** Union density rate of worker with (or below) primary level education
- (233) **UD_Educ2:** Union density rate of workers with (or below) primary level education
- (234) **UD_Educ3:** Union density rate of workers with (or below) primary level education