

# Data Base on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts, 1960-2017 (ICTWSS)

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## 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 (2) the organisation and representation of employees in trade unions and works councils. The database contains annual data from 1960 through to 2017 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

There are 232 variables, organized in 11 groups: Rights (6); Wage Setting (21); Social Pacts, Agreements and Social Dialogue (29), Works Councils and employee representation in the enterprise (4); Sectoral institutions and employer organization (4); Number, names and membership of confederations and unions (31); Union density and bargaining coverage (19); membership shares and divisions between/within confederations (15); activities and statutory powers of

confederation and unions(20); indicators of union concentration and centralisation (6); membership composition and union density by categories (79).

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.

## ICTWSS CODEBOOK

### Identification (4)

#### Country

### Rights (6)

#### **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

#### **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

#### **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

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

**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

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- 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

## **Wage setting (21)**

**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).]

**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.]

**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.

[Note: based on Hassel, 2005, p. 75, with 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). ]

**Peace: Presence of peace clauses in sectoral and/or cross-sectoral collective agreements**

- 1 = sectoral and/or cross-sectoral wage agreements contain peace clauses for addressing conflict during the lifetime of the agreement and the regulation of additional bargaining at sub-sectoral or enterprise level
- 0 = sectoral and/or cross-sectoral collective wage agreements do not contain peace clauses.
- 99 = does not apply; no sectoral or cross-sectoral wage agreements

**CoReM Presence of mediation or arbitration procedures for the peaceful settlement of conflicts of interest (over the renegotiation of collective agreements when they expire)**

- 2 = yes, arbitration
- 1 = yes, mediation or conciliation
- 0 = none

**Obligatory Is the use of arbitration or mediation obligatory (under the law, or as specified in the basic agreement between employers and unions)**

- 1 = yes
- 0 = no
- 99 = does not apply, no arbitration or mediation procedures

**Level-I: Level-impact: the predominant level at which wage bargaining takes place in terms of coverage**

- 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

[Note: 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.]

**Level-D: Level-determinant: the level or levels that determine the wage clauses in collective bargaining**

- 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)

**Level-M: Index of Multi-level bargaining**

The actual level of wage bargaining in a multi-level bargaining system, calculated as:

$[\text{Level-I} - (\text{fAEB} + \text{WSSA} + \text{OCG} + \text{OCT})/8]$ , if  $\text{Level-I} > 1$

and

$[\text{Level-I} - (\text{OCT})/10]$ , if  $\text{Level}_I = 1$ , to allow for crisis-related concession bargaining and opening clauses in enterprise agreements.

**fAEB: Frequency or scope of additional enterprise bargaining**

- 3 = additional enterprise bargaining on wages is common
- 2 = additional enterprise bargaining on wages occurs only in large firms
- 1 = additional enterprise bargaining on wages is rare even in large firms.
- 0 = no additional enterprise-level bargaining on wages
- 99 = does not apply

**Art: Articulation of enterprise bargaining**

- 3 = articulated: additional enterprise bargaining on wages is recognized and takes place under control of the 'outside' union, i.e. the same signatory or signatories as negotiating the sector agreement
- 2 = partially articulated: additional enterprise bargaining on wages takes place under control of the (non-union) works council 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 under control of the 'outside' union
- 99 = does not apply

**DR Derogation.**

- 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

[Derogation is defined as the possibility of setting aside the favourability principle in the law and allow sectoral and enterprise agreements to negotiate ‘deviant’ norms on non-wage issues, like maximum or minimum working hours, working time regime and employment protection.]

**FAV: Favourability**

- 3 = favourability is inversed, 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
- 99 = does not apply, single-level bargaining

**WSSA: Wage setting in sectoral agreements**

- 2 = sectoral agreements set the framework or define the default for enterprise bargaining
- 1 = sectoral agreements define the minimum level (and minimum rate changes) of wages
- 0 = sectoral agreements define the minimum and actual levels (and rate changes) of wages
- 99 = does not apply, no sectoral bargaining of significance

**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
- 99= does not apply, no sectoral bargaining of significance

**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

**Index: general price indexation or cost-of-living clauses in agreements**

- 1 = (most or many) collective agreements contain index clauses.
- 0 = use of index clauses is rare or forbidden

**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. 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].

**Length: Length of collective (wage) agreements**

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

**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

**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 committee, 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.]

## Social Pacts and Agreements (29)

**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*

**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 defines 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].

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

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

*etcetera*

**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*

**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*

**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*

**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*

**All: All pact and (central) agreements signed in a given year**  
= Sum of Pactsign + Agrsign

**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 agreement – Avdagic et al., 2011 - , only 1-3, possibly 1-4 constitute social pacts, whereas 5-6, whatever their importance, do not]

**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.)

**Pacttype: Type of social pact**

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

**Wage: pact or agreement is about wage issues**

- 0 = No
- 1 = Yes

**Non-Wage: pact or agreement is about non-wage issues**

- 0 = No
- 1 = Yes

**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

**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

**Wage\_Proc:** pact or agreement is about procedure for wage setting: articulation of levels, conflict procedures, etc.

0 = No  
1 = Yes

**Wage\_Max:** pact or agreement contains a norm or ceiling regarding maximum wage rise

0 = No  
1 = Yes

**Tax\_Budget:** Pact or agreement contains, and/or is predicated on, concessions (or promises) regarding taxation and/or budgetary decisions

0 = No  
1 = Yes

**Work\_Hrs:** Pact or agreement contains, and/or is predicated on, concessions (or promises) regarding working hours

0 = No  
1 = Yes

**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

**Empl\_leg** Pact or agreement contains, and/or is predicated on, concessions (or promises) regarding employment protection legislation (labour law)

0 = No  
1 = Yes

**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

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

0 = No  
1 = Yes

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

0 = No  
1 = Yes

**Union\_rights** Pact or agreement contains, and/or is predicated on, concessions (or promises) regarding unions (representation, recognition) rights, including employee representation, works councils, bargaining rights, etc.

- 0 = No
- 1 = Yes

**Concert** Pact or agreement sets up or changes nation-wide councils for concertation.

- 0 = No
- 1 = Yes

**TC:** existence of a standard (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.

**BC:** existence of a standard (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.

**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

## **Works councils and employee representation in the enterprise (4)**

**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.

**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.

**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.

**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.

## **Sectoral institutions and employer organization (4)**

**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.

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

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

**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)

**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)

## **Number, names and membership of confederations and unions (31)**

### **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)

### **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).

### **CF1\_name – CF8\_name: Name of confederation 1 (usually largest) through 8**

Acronym of the trade union confederation. Numbering corresponds to the NAffCF and ShCF variables.

### **NAffCF1: Number of affiliates of confederation 1 (usually largest)**

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

### **ENAffCF1: Effective number of affiliates of confederation 1**

(0-∞) = 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  $I^{th}$  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.

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

(0 -  $\infty$ ) = sum of members of affiliates in confederation 1

**NAffCF2, 3, ... 8: Number of affiliates of confederation 2, 3, ... 8**

(0-  $\infty$ ) = number of affiliated unions to confederation 2-8 (only national unions or federations)

**MemCF2, 3, ... 8: Total membership of unions affiliated to confederation 2, 3, ...8**

(0-  $\infty$ ) = sum of members of affiliates in confederations 2-8

**NindU: Number of Independent (Not-affiliated) Unions**

(0-  $\infty$ ) = number of unaffiliated or independent unions (only national unions or federations)

**MindU: Membership of Independent Unions**

(0-  $\infty$ ) = sum of members of independent or unaffiliated unions

**TNUions: Total Number of Unions**

(0-  $\infty$ ) =  $\sum$  NAffCF<sub>1-8</sub> + NindU

**ETNUions: Effective Number of Unions**

(1-  $\infty$ ) = 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. ETNUions is approximated by multiplying the effective number of confederations and the effective number of affiliates in the main confederations, thus ETNUnion = ENUCFs \* 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.

**Total membership, union density and bargaining coverage (19)**

**TUM: Total Union Membership**

(1-  $\infty$ ) =  $\sum$  MemCF<sub>1-8</sub> + MindU

**NUM: Net Union Membership**

(1-  $\infty$ ) = 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).

**NUM\_s: Union Membership as based on (national) household of labour forcer suvey**

(1-  $\infty$ ) = union members among the dependent employed labour force

**WCol: Workers covered by collective agreements or statutory regulation**

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

**WCB: Workers covered by collective agreements**

(1-  $\infty$ ) = number of employees covered by collective agreements.

**Wstat: Workers covered by statutory regulation and excluded from collective bargaining**

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

**WSEE: Wage and Salary Earners in Employment**

(1-∞) = employed wage and salary workers, source (unless stated otherwise): OECD, *Labour Force Statistics*

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

(0-100) =  $NUM * 100 / WSEE$

**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) =  $NUM\_survey * 100 / WSEE\_survey$

**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,

**SEB: Single Employer Bargaining**

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

**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)

**ExtE: Estimate of coverage due to extension**

(0-100) = employees covered as a result of extension orders to non-organized employers

**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, =  $WCB * 100 / WSEE$

**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 =  $WCB * 100 / (WSEE - WStat)$ .

**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 =  $(WCB_{new}) * 100 / WSEE$

**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.

**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”. See also Bordogna and Pedersini (2013) for different classifications of the government sector, based on employment relations (and employment status), financing, ownership, or regulation.]

**Membership shares and divisions in/between confederation (15)**

**ShCF1: Membership share of Confederation 1**

(0-1) = fraction  $p_1$  of the membership in confederation 1 in the total membership (TUM)

**ShCF2, 3, - 8: Membership share of Confederation 2, 3, - 8**

(0-1) = fraction  $p_{2-8}$  of the membership in confederations 2 to 8 in the total membership (TUM)

**DIV-pol Divisions across confederations are politically (religiously, ethnically, linguistically) motivated**

1 = yes

0 = no

**DIV-econ Divisions across confederations are economically (education, status, rank) motivated**

1 = yes

0 = no

**Div-sector Divisions across confederations are sectorally (private versus public) motivated**

1 = yes

0 = no

**Div-region Divisions across confederations are regionally based**

1 = yes

0 = no

**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)

**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)

**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

**Activities and statutory powers of confederations and unions (20)\***

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

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

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

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

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

- 1 = yes
- 0 = no

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

- 1 = yes
- 0 = no

**CFconsult:** Confederation is routinely consulted by the government on social and economic policy issues

1 = yes

0 = no

**UNwage:** Union negotiates national (or regional) sectoral collective agreements (wage and non-wage terms)

1 = yes

0 = no

**UNnonwage:** Union negotiates national (or regional) sectoral collective agreements (only non-wage terms)

1 = yes

0 = no

**UNcoord:** Union coordinates wage bargaining across enterprise units

1 = yes

0 = no

**CFappt:** confederation appoints, or can veto, directly or through government approval, the leaders of their affiliates

1 = yes

0 = no

**CFagr:** confederation can veto or preempt through central agreement wage bargaining of affiliates

1 = yes

0 = no

**CFfin:** confederation collects dues and reimburses affiliates

1 = yes

0 = no

**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

**CFveto:** confederation can veto or end strikes by their affiliates (prior approval or central settlement procedure)

1 = yes

0 = no

**CFpower:** statutory power of confederation over its affiliates

(0-1): sum over CFappt, CFagr, CFfin, CFfund and CFveto, divided by maximum score of 5

**UNappt: union appoint or can veto workplace representatives (shop stewards, delegates)**

1 = yes  
0 = no

**UNagr: union can veto or, participates in, wage bargaining at enterprise level**

1 = yes  
0 = no

**UNfin: national union collects dues and reimburses local and workplace branches**

1 = yes  
0 = no

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

1 = yes  
0 = no

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

1 = yes  
0 = no

**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

## **Indicators of union concentration and centralisation (6)**

**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.

**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.  $\sum_{i=1}^n p_i^2$ , where  $p_i$  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.

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

$$(0-1) = \sqrt{(CF_{\text{power}} * CONC_{\text{conf}})}$$

**CENTunion: Summary measure of concentration of unions at peak and sectoral level**

$$(0-1) = \sqrt{(UN_{\text{power}} * CONC_{\text{union}})}$$

**CENT : Summary measure of centralisation of wage bargaining**

$$(0-2) = \text{CENTconf} + \text{CENTunion}$$

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)

**CENTratio**

$$(0-1) = \text{CENTconf} / \text{CENTunion}$$

## Membership composition and density rates by category (79)

UM_fem:	Percentage share of females in total membership
UD_fem:	Union density rate of females
UD_male:	Union density rate of males
UM_PT:	Percentage share of part-time workers in total membership
UD_PT:	Union density rate of part-time workers
UD_FT:	Union density rate of fulltime workers
UM_temp:	Percentage share of temporary workers (i.e. workers on fixed duration contracts) in total membership
UD_temp:	Union density rate of temporary workers
UD_perm:	Union density rate of permanent workers, i.e. those employed under open-ended contracts
UM_man:	Percentage share of manual workers in total membership
UD_man:	Union density rate of manual (blue-collar) workers
UD_nonman:	Union density rate of non-manual (white-collar) workers
UM_skilled:	Percentage share of skilled worker in total membership
UD_skilled:	Union density rate of skilled workers
UD_unskilled:	Union density rate of unskilled workers
UM_public:	Percentage share of public sector* workers in total membership [public sector defined as before, under coverage]
UD_public:	Union density rate of public sector workers
UD_private:	Union density rate of private sector worker
UM_size50+:	Percentage share of workers in firms with 50 or more employees in total membership
UD_50+:	Union density rate of workers in firms with 50 or more employees
UD_50-:	Union density rate of workers in firms with less than 50 employees
UM_foreign:	Percentage share of foreign workers in total membership
UD_foreign:	Union density rate of foreign workers
UD_native:	Union density rate of native workers

UM_agr:	Percentage share of workers in agriculture in total membership
UM_ind:	Percentage share of workers in industry in total membership
UM_serv:	Percentage share of workers in services in total membership
UM_mining:	Percentage share of workers in mining in total membership
UM_manuf:	Percentage share of workers in manufacturing in total membership
UM_metal:	Percentage share of workers in metal manufacturing in total membership
UM_util:	Percentage share of workers in utilities (gas, water and electricity) in total membership
UM_construct:	Percentage share of workers in construction in total membership
UM_comm:	Percentage share of workers in commerce in total membership
UM_hotels:	Percentage share of workers in hotels, restaurants and catering in total membership
UM_transport:	Percentage share of workers in transport and communication in total membership
UM_buss&re:	Percentage share of workers in business services and real estate in total membership
UM_socialserv:	Percentage share of workers in social and community services (incl. public sector) in total membership
UM_pa:	Percentage share of workers in public administration (and defence) in total membership
UM_educ:	Percentage share of workers in education in total membership
UM_health:	Percentage share of workers in health services and social work in total membership
UM_otherserv:	Percentage share of workers in other services (leisure, culture, household) in total membership
UD_agr:	Union density in agriculture
UD_ind:	Union density in industry
UD_serv:	Union density in services
UD_mining:	Union density in mining
UD_manuf:	Union density in manufacturing

UD_metal:	Union density in metal manufacturing
UD_util:	Union density in utilities (gas, water and electricity)
UD_construct:	Union density in construction
UD_comm:	Union density in commerce
UD_hotels:	Union density in hotels, restaurants and catering
UD_transport:	Union density in transport and communication
UD_buss&re:	Union density in business services and real estate
UD_socialserv:	Union density in social and community services (incl. public sector)
UD_pa:	Union density in public administration (and defence)
UD_educ:	Union density in education
UD_health:	Union density in health services and social work
UD_otherserv:	Union density in other services (leisure, culture, household)
UM_15-24:	Percentage share of workers aged 15-24 in total membership
UM_25-54:	Percentage share of workers aged 25-34 in total membership
UM_55-64:	Percentage share of workers aged 55-64 in total membership
UM_65_more:	Percentage share of workers aged 65 and older in total membership
UD_15-24:	Union density of workers aged 15-24
UD_25-54:	Union density of workers aged 35-54
UD_55-64:	Union density of workers aged 55-64
UD_65_more:	Union density of workers aged 65 and older

UM_Educ1:	Percentage share of workers with (or below) primary level education in total membership
UM_Educ2:	Percentage share of workers with secondary level education in total membership
UM_Educ3:	Percentage share of workers with tertiary (or higher) level education in total membership
UD_Educ1:	Union density of workers with (or below) primary level education in total membership
UD_Educ2:	Union density of workers with (or below) primary level education in total membership
UD_Educ3:	Union density of workers with (or below) primary level education in total membership