

Data Base on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts, 1960-2011 (ICTWSS)

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The ICTWSS database covers four key elements of modern political economies: trade unionism, wage setting, state intervention and social pacts. The database contains annual data for all OECD and EU member states - Australia; Austria; Belgium; Bulgaria; Canada; Chile, Cyprus, the Czech Republic; Denmark; Estonia; Germany; Greece; Finland; France; Hungary; Iceland; Ireland; Israel, Italy; Japan; 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 – with some additional data for emerging economies Brazil; China; India; Indonesia; Russia; and South Africa; and it runs from 1960 till 2011.

The part on social pacts was developed in the framework of the NEWGOV project, financed under the EU FP7 research framework, on “Distributive Politics, Learning and Reform: National Social Pacts”, directed by Sabina Avdagic, Martin Rhodes and myself (Avdagic et al 2011). Our database contains information on the negotiation and signing of pacts, the actor combinations involved, whether these were wage pacts or pacts dealing with other issues, whether they were broad or single-issue pacts. In addition the database contains entries on the existence of bipartite agreements between unions and employers, distinguishing between wage and non-wage agreements, and between autonomous agreements and agreements sponsored by the state or depending on legislation. Also covered is the existence of bipartite and tripartite councils or bodies for social economic policy making, advice and forecasting. All data are newly collected based on data from the project and from various national sources and comparative studies, among which Pochet and Fajertag (2000) and Pochet, Keune and Natali (2010), the Industrial Relations in Europe reports of the European Commission (2000, 2002, 2004, 2006, 2008, 2010, and 2012) and publications of the European Social and Economic Committee, and the European Foundation for the Improvement of Living and Working Conditions, and its online European Industrial Relations Observatory (EIRO). See, for instance, Tóth and Neumann (2004) and the EIRO country profiles.

The part on wage setting is focusing on features such as bargaining coverage, level and type (or mechanism) of coordination, predominant level of bargaining, articulation of

multi-level bargaining, the use of opening clauses in agreements, the average length of agreements, government intervention, types and grades of administrative extension of agreements, minimum wage setting, employer organization and union centralisation. The data is from various national and comparative sources, including Traxler (1994); OECD (2004); European Industrial Relations Online (EIRO, various years); the Global Wage Surveys of the ILO. See for measurement and methods also Lawrence and For coverage data use has been made from surveys for the US, Canada, New Zealand, the UK, Germany, the Netherlands, Israel and South Africa, as well as historical estimates from Ochel (2001); and Visser 2010 for Brazil, China, India, Indonesia, and South Africa. The variables and data on coordination, articulation, opening clauses, and extension have been added, or revised, in this version. They are discussed in a recent paper on "Wage Bargaining Institutions---From Crisis to Crisis" (Visser 2013), which will be published online by the European Commission, DG Economic and Financial Affairs, in *European Economy. Economic Papers*, April 2013. On levels of bargaining, articulation and opening clauses, see also Arrowsmith and Marginson (2009), Broughton (2010), Schulten (2005), Schulten and Stueckler (2000), and Cultarelli et al (2012).

Traxler and Behrens (2002) provide the main source for administrative extension, with additional data from Blanpain (2004), and the EIRO database (see for details: Visser 2013). Kenworthy (2001) is the key source for the coordination of wage setting scores, with my own data for Central and Eastern Europe and recent years added (see my chapters in EC, 2004; 2009; 2011). There are a few subtle differences in the wage coordination scale used here and the one used by Kenworthy (see codebook, *infra*) and for some years and countries my scores and his differ. Since the Kenworthy scale allows ranking from high to low, I have preferred his approach to the coding in Traxler, Blaschke and Kittel (2001). However, their emphasis on the governability and enforcement of agreements is picked up in the data on union centralisation (or governance) and in a separate variable on the type or mechanism of wage bargaining coordination.

The five-point scale measuring government intervention was developed by Hassel (2006) though I have thought it necessary to make two important changes, one to allow a distinction between (a) non-intervention but supporting and facilitating broad sectoral unions and agreements (the case of, for instance, Germany); and (b) non-intervention while creating or upholding a legal framework that favours fragmented and company unionism and bargaining (the case of, for instance, the UK). The other change is that the scale used here distinguishes between (a) interventions that impose by law a stop on free bargaining or a ceiling on its outcomes and (b) interventions by means of a social pact negotiated with the unions and employers for some *quid pro quo*. The data are from Hassel (2006), Golden and Lange (1996), Golden, Lange, and Wallerstein (2006), at <http://www.shelley.polisci.ucla.edu/> (version dated June 16, 2006), and my own updates for Central and Eastern Europe, New Zealand and recent years. I have reduced the 15-points Golde-Lange-Wallerstein (2006) scale to my five-point scale based on a revision of Hassel, 2005 (see codebook, below). Addison (1981) and Armingeon (1982, 1994) provide additional data, covering earlier years, on state intervention and incomes policies.

Another key aspect of government intervention relates to minimum wage setting. Based on a study of the institutional aspects of minimum wage setting (does a mandatory exists in all or some parts of the economy; how do governments reach decisions; is there an index; what role do social partners play, etc.) I have made a distinction between whether or not a mandatory minimum wage exists for some or all of the economy; and how decisions regarding the minimum wage are actually made, with or without the involvement of unions and employers. The data are from the OECD, EIRO reports, Funk and Lesch (2005), the European Commission (*Industrial Relations in Europe* reports), the ILO Global Wage Reports, and various national sources

The index for union 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). The data are new and presented here for the first time (see below, and codebook). As the index on union centralisation is a composite variable, there are separate entries for union concentration, the intra- and inter-organizational degree of unity (or cohesiveness), and the degree of authority of confederations over their affiliates, and of affiliates over their (workplace or company) members.

On the organisation of unions and key bargaining units, indicated by the concentration or fragmentation of unions and confederations, and by the authority division between them, the main sources are Ebbinghaus and Visser (2000) for Western Europe; EIRO (2003) and the database of the Institut des Sciences du Travail of the Université Catholique du Louvain on *les partenaires sociaux en Europe*, developed for the European Commission (<http://www.trav.ucl.ac.be/recherche>), Carley, 2004, and various sources as well as EIRO country reports for Eastern Europe, and Golden, Lange and Wallerstein (2006) for non-European OECD countries: The data for the two five-point scales for confederal and union authority are mainly from Visser (1990) for Western Europe and the national (unpublished) reports for the DUES Handbook (Ebbinghaus and Visser, 2000) and from Golden, Lange and Wallerstein (2006) for non-European OECD Countries. The data for Central and Eastern Europe is from the UCL files, Kohl and Platzer (2004), and several national and comparative sources. I mention in particular the research of Gardawski, Myant, Kahancova, Neumann, and Stanojevic on Polish, Czech, Slovak, Hungarian and Slovenian unions.

For the first time, and new in this database, is information on employer organization, and on the extent, coverage and nature of employee and union representation in enterprises, works councils or similar institutions. The data on employer organization is based on various sources, including Behrens and Traxler (2004), Kohl and Platzer (2004) and Carley (2009); and national sources. The data on representation in enterprises is based on Rogers and Streeck (1995); the two-volume report of the European Commission, DG Employment and Social Affairs (2008), and Hall and Purcell (2011), as well as national sources.

Also new is the coding on rights of association, rights of collective bargaining and the

right of strike, with separate entries for the private or market sector and the government sector, defined as the general government, including public administration, defence, compulsory social insurance, education, health and social work. The main sources are the ILO Natlex legal database, Armingeon (1994), Blanpain (2004), and Ebbinghaus and Visser (2000).

Finally, the part on trade union membership and union density comes from Ebbinghaus and Visser (2000) for Western European countries, Visser, 1991, 1992, 1993 and 2006 for extensions to non-European countries, combined with recent administrative data on union organization and membership from the Dublin Foundation for the Improvement of Living and Working Conditions (Carley, 2004) and from the European Social Survey (waves of 2002 and 2004) for countries in Eastern and Central Europe (for the sources and methods: R. Jowell and Central Coordinating Team (2003): European Social Survey 2002/2003. Technical Report. London: Centre for Comparative Social Surveys, City University, and <http://www.europeansocialsurvey.org>. All series have been updated till 2011 in this file. Sources and methodologies are described in Visser, 2006.

New in comparison with earlier versions of this database are the separate series on union density based on national (household or labour force sample) surveys, as reported in national sources, and a variable measuring the presence or recognition of trade unions in workplaces. Also new are the data on the composition of union membership and union density rates by gender, age groups, industry, public or private sector, skill level, blue- and white-collar, company size, and native or foreign (or migrant) status. The data are from national labour force of household surveys, or dedicated surveys reported in the literature (see, among others, the publications by Anders Kjellberg for Sweden and the Nordic countries more generally, and the publications by the FAOS research institute in Copenhagen, and of FAFO in Oslo). For earlier years, and breakdowns based on administrative data: Visser (1991) and Ebbinghaus and Visser (2000).

Finally, compared to the three earlier versions, many series have been (slightly) revised. In the case of union density rates this may result from changes in the estimated net membership, changes in the employment data, or both. In the latest version of the OECD Labour Force Statistics (accessed 17 April 2013) there are numerous changes compared to earlier versions. Newer survey data for union membership has been used to calibrate the estimates for net union membership, including only wage and salary employees in employment.

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ICTWSS CODEBOOK

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

- 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

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

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

RS_g: Right to Strike, government

- 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

Coord: coordination of wage-setting

- 5 =
 - a) centralized bargaining by peak association(s), with or without government involvement, and/or government imposition of wage schedule/freeze, with peace obligation (example: Sweden prior to 1980);
 - b) informal centralisation of industry-level bargaining by a powerful and monopolistic union confederation (example Austria prior to 1983);
 - c) extensive, regularized pattern setting and highly synchronized bargaining coupled with coordination of bargaining by influential large firms (Japan prior to 1998).
- 4 =
 - a) centralized bargaining by peak associations with or without government involvement, and/or government imposition of wage schedule/freeze, without peace obligation (example: Ireland 1987-2009);
 - b) informal (intra-associational and/or inter-associational) centralisation of industry and firm level bargaining by peak associations (both sides) (example Spain 2002-8);
 - c) extensive, regularized pattern setting coupled with high degree of union concentration (example: Germany most years).

- 3 = a) informal (intra-associational and/or inter-associational) centralisation of industry and firm level bargaining by peak associations (one side, or only some unions) with or without government participation (Italy since 2000);
b) industry-level bargaining with irregular and uncertain pattern setting and only moderate union concentration (example: Denmark 1981-86);
c) government arbitration or intervention (example: U.K 1966-8, 1972-4)
- 2 = mixed industry and firm-level bargaining, with no or little pattern bargaining and relatively weak elements of government coordination through the setting of basic pay rates (statutory minimum wage) or wage indexation (example France most years).
- 1 = fragmented wage bargaining, confined largely to individual firms or plants (example U.K. since 1980).

[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 = State-imposed bargaining (incl. statutory controls in lieu of bargaining)
- 5 = State-sponsored bargaining (this includes pacts)
- 4 = Inter-associational by peak associations
- 3 = Intra-associational (“informal centralisation”)
- 2 = Pattern bargaining
- 1 = Uncoordinated bargaining.

[Based on Traxler, Blaschke and Kittel (2001). This indicator stresses the modality or mechanism through which coordination of wage bargaining behaviour is produced, i.e. it is based on behavioral 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). My codes follow a scheme from state (5, 6) to self-regulation (2,3,5) to market (1), but imply no scale or rank-order.]

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 or may not 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 favours company unions and company and/or individual bargaining (= 1).

Level: The predominant* level(s) at which wage bargaining takes place

- 5 = bargaining predominantly takes place at central or cross-industry level and there are centrally determined binding norms or ceilings to be respected by agreements 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 and country. If it accounts for less, but for more than one-third of the coverage rate, we have 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 actual regulation of employment relations.]

Art: Articulation of sectoral bargaining

- 5 = no additional bargaining on pay (contractual wage increases are maximum rates; additional pay is management's discretion);
- 4 = additional bargaining on pay is rare (and mostly informal), subject to a peace clauses;
- 3 = additional bargaining on pay is diffused, takes place under control of the union, is regulated by the sector (or central) agreement, and subject to a peace clause;
- 2 = additional bargaining on pay is diffused, takes place under control of the union and is limited by the sector (or central) agreement but is not subject to a peace clause;
- 1 = additional bargaining on pay is diffused, not constrained by existing higher-order agreements and not subject to peace clause;
- 0 = no or limited sectoral bargaining.

[Unarticulated systems are found at both ends of this scale; i.e., when central or industry agreements (or mechanisms such as indexation) 'fill' all the space for pay bargaining that exists and additional bargaining can only exist informally, or, in contrast, when central and industry agreements (and the contracting parties) have rather limited 'governance capacity' (Traxler, Blaschke and Kittel 2001)

and company bargaining proceeds largely unchecked. It is, however, possible to transform this variable into an ordinal scale by observing the following recoding scheme:

- 5 = Highly articulated: clear division of roles between agreements at different levels and, local negotiations under peace obligation (= 3 in above coding)
- 4 = Articulated: division of roles between agreements, no peace obligation (= 2)
- 3 = Poorly articulated: no or unclear division of roles (= 1)
- 2 = Unarticulated: additional bargaining (other than wage drift) is limited or absent, and legally not foreseen or allowed (= 4 and 5)
- 1 = Does not apply: no or very limited bargaining at sectoral (or national) level (= 0)]

OC: Opening clauses (setting aside the favourability principle in higher-order (usually sector) agreements, and allowing deviation from norms established in the higher-order agreement that in some aspects are less favourable, possibly in exchange for some other guarantees or benefits)

- 5 = opening clauses are exceptional (one-off hardship clauses only, related to specific cases of bankruptcy or restructuring);
- 4 = opening clauses exist, limited use, on working time only;
- 3 = opening clauses exist, limited use, also on pay;
- 2 = opening clauses exist, use is widespread, including pay.
- 1 = opening clauses are generalised; the sector agreement sets only a framework for local bargaining or define only a default in case local negotiations fail;
- 0 = does not apply (no sectoral or national agreements).

[This variable reflects, mostly, developments in manufacturing; although in some countries central agreements (recommendations, guidelines), legal changes and social pacts are the principal source of changes in this domain. Apart from legal textbooks or studies (Blanpain 2002; Sciarra 2006; CNCC (2005)), two comparative studies, published in EIRO (European Industrial Relations Online) of the European Foundation for the Improvement of Living and Working Conditions have been extremely useful as source of information for the variable: Schulten (2005) and Cultarelli et al (2012).]

Ext: Mandatory extension of collective agreements by public law to non-organised firms

- 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 resistance 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. See Traxler and Beherens 2002. Functional equivalents vary in their applicability and include: mandatory membership of employers' associations (Austria and until recently in Slovenia); judicial awards (New Zealand before 1991; Australia, scaled down since 1992; Italy related to court ruling on minimum pay scales; or compulsory minimum wage schedules tied to public procurement (some countries (see Dølvik, Eldring and Visser 2013).]

Length: Length of collective (wage) agreements

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

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, but 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 but government is bound by fixed rule (index-based minimum wage);

8 = Minimum wage is set by government, without 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 fixed rules).

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

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

year

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

etcetera

[Note: 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].

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

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

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

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

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

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 (relevant for pacts or agreements covering more than one year, or pacts that are negotiated in year t and are valid in year t+1)

- 0 = No
- 1 = Yes

AgrApplies: Wage clause in central agreement applies in specified year (relevant for pacts or agreements covering 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

Inst_conc. 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

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)

- 2= collective agreements, if no union is present (and/or subject to ballot) 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.

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

Cfrep: Main confederation(s) represent(s) the affiliates politically and is routinely involved in consultation with government – either through bipartite or tripartite contacts

- 2 = score '2' on RI (routine involvement in consultation)
- 1 = score '1' on RI (routine involvement in consultation)
- 0 = score '0' on RI (routine involvement in consultation)

Cfappt: confederal (political) control over appointment of leaders of affiliates

- 2 = confederation appoints or has veto (directly or through government approval)
- 1 = affiliates and confederations share control
- 0 = confederation has no control over appointment process

Cfagr: confederal involvement in wage agreements negotiated by its affiliate unions

- 2 = confederation has mandate to negotiate agreement with employers and/or government on wage issues
- 1 = confederation has mandate to negotiate agreement with employers and/or government on non-wage issues
- 0 = none of above

Cffund: confederal or joint strike fund from which member unions are reimbursed

- 2 = joint strike or resistance fund has significant size (≥ 50 percent of total union expenditure on official strikes)
- 1 = joint strike or resistance fund is limited (< 50 percent of total union expenditure on official strikes)

0 = no joint strike or resistance fund held by confederation

Cfveto: confederal power over strikes by affiliates

2 = all strikes need prior approval from confederation

1 = confederation can end strikes through central procedures of conflict settlement (arbitration)

0 = confederation has no power over strikes organised by its affiliates

Cfauthority: authority of confederation over its affiliates

(0-1): additive measure over Cfrep, Cfappt, Cfagr, Cffund and Cfveto, divided by maximum score (=10).

Unagr: union (affiliate) role in wage bargaining

2 = union negotiates enforceable agreement at sector level and has veto power over company agreements

1 = union negotiates agreements at sector level allowing enterprise or company branches to vary within limits

0 = union does not negotiate sector agreements

Unappt: union (affiliate) control over appointment of workplace representatives

2 = union (affiliate) appoints workplace representatives

1 = union (affiliate) can veto candidates for workplace representation

0 = union (affiliate) has no control over appointment or election of workplace representatives

Unfin: union (affiliate) finances

2 = local and workplace branches are financed by the national union (affiliate)

1 = local and workplace branches have autonomous funds from direct member or employers contributions

0 = national union (affiliates) is dependent on financial contribution from constitutive branches and local (workplace) unions (national union is federation).

Unfund: union (affiliate) strike fund

2 = union (affiliate) has a large strike fund from which striking members are reimbursed at 70 percent or more of their base wage (without overtime pay and bonuses) for each day of strike.

1 = union (affiliate) has small strike funds from which some reimbursement (at less than 70 percent of the base wage) is guaranteed

0 = union (affiliate) has no strike fund

Unveto: union (affiliate) power over enterprise strikes

2 = union (affiliate) has veto over enterprise strikes

1 = union (affiliate) can end enterprise strikes through central procedure of conflict settlement (arbitration)

0 = union (affiliate) cannot veto or end enterprise strike

Unauthority: authority of union (affiliate) over their local or workplace branches and representatives.

(0-1): additive measure over Unagr, Unappt, Unfin, Unfund and Unveto, divided by maximum score (=10).

NECfs: Number of Employers' Confederations (Organisations)

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

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

(0-100) = $\text{WSEE in firms organised in employers' organisations} * 100 / \text{WSEE}$
(WSEE is wage and salary earners in employment)

NUCfs: Number of Union Confederations

(1- 8) = 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)

ENUCfs: Effective Number of Union Confederations

(1- 8) = 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).

NAffCf1: Number of affiliates of confederation 1 (usually largest)

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

federations)

ENAffCf1: Effective number of affiliates of confederation 1

$(1 - \infty)$ = 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. Based on this assumption we can dispense with the requirement to measure the effective number of unions in minority confederations Cf2-Cf8.

MemCf1: Total membership of unions affiliated to confederation 1 (usually largest)

$(1 - \infty)$ = 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

TNUnions: Total Number of Unions

$$(0- \infty) = \sum \text{NaffCf}_{1.8} + \text{NindU}$$

TUM: Total Union Membership

$$(1- \infty) = \sum \text{MemCf}_{1.8} + \text{MindU}$$

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).

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

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

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

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

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

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

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,

AdjCov: Bargaining (or Union) Coverage, adjusted

(0-100) = employees covered by 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 (removing such groups from

the employment count before dividing the number of covered employees over the total number of dependent workers in employment WSEE; see Traxler, 1994)

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.]

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)

DEME: External demarcations between union confederations

- 2 = sharp (political, ideological, organisational) cleavages associated with conflict and competition
- 1.5 = moderate (occupational, regional, linguistic, religious) cleavages, limited competition
- 1 = no cleavages – united confederation

DEMI: Internal demarcations within union confederations

- 2 = sharp (organisational, occupational or skill-related) cleavages associated with conflict and competition (multiple unions within same plant or company)
- 1.5 = moderate (occupational or skill-related) cleavages, limited competition (multiple unionism in same plant or company)
- 1 = no cleavages (single jurisdictions – industry unions or enterprise unions)

Hcf: Membership concentration at central or confederal level (Herfindahl index at central or peak level)

(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.

Haff: Membership concentration at the industry level, within confederations (Herfindahl index at sectoral level)

(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. $\sum_{Affl} n (p_i^2)$, 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.

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

(0-1) = sum of **Cfauthority** and **Unauthority**, divided by maximum score (=20)

CONC: Summary measure of concentration of unions at peak and sectoral level

(0-1) = sum of **Hcf** and **Haff**, with a maximum of 1.

CENT: Summary measure of centralisation of wage bargaining, taking into account both union authority and union concentration at multiple levels (derived from Iversen's centralisation index).

(0-1) = given by $\sqrt{[(Cf_{authority} * DEME * H_{cf}) + (Aff_{authority} * DEMI * H_{aff})]}$, weighting the degree of authority or vertical coordination in the union movement with the degree of external and internal unity, 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)

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
[defined as before, under coverage]

UD_public: Union density rate of public sector workers

UD_private: Union density rate of private sector workers

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%25-34: Percentage share of workers aged 25-34 in total membership
UM%35-54: Percentage share of workers aged 35-54 in total membership
UM%55-64: Percentage share of workers aged 55-64 in total membership
UM%65: Percentage share of workers aged 65 and older in total membership

UD_15-24: Union density of workers aged 15-24
UD_25-34: Union density of workers aged 25-34
UD_35-54: Union density of workers aged 35-54
UD_55-64: Union density of workers aged 55-64
UD_65: Union density of workers aged 65 and older

Country codes

AS = Australia
AU = Austria
BE = Belgium
BG = Bulgaria
BRA= Brazil
CHL= Chile
CHN= China
CND= Canada
CY = Cyprus
CZ = Czech Republic (before 1993: Czechoslovakia)
DE = Germany (before 1990: West Germany)
DK = Denmark
EE = Estonia
EL = Greece
ES = Spain
FI = Finland
FR = France
HU = Hungary
ICE= Iceland
IE = Republic of Ireland
IND= India
INDN=Indonesia
ISR= Israel
IT = Italy
JAP= Japan
KOR= Republic of Korea (South Korea)

LT = Lithuania
LU = Luxembourg
LV = Latvia
MAY=Malaysia
MEX= Mexico
MT = Malta
NL = Netherlands
NO = Norway
NZ = New Zealand
PHI= Philippines
PL = Poland
PT = Portugal
RO = Romania
SA = South Africa
SE = Sweden
SG = Singapore
SI = Slovenia
SK = Slovakia (before 1993: Czechoslovakia)
SZ = Switzerland
TUR= Turkey
UK = United Kingdom
US = United States