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Measuring legal segmentation in labour law

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Abstract

The Standard Employment Relationship (SER) in industrialised countries is associated with strong protection for employees who fulfil its criteria, but tends to neglect those who do not. However, comparative quantitative research in labour law so far has mainly focused on the overall level of employment protection in the North-Western Hemisphere. We ask how *legal segmentation* in labour law, i.e. the exclusion from and gradation in employment protection, can be conceptualised and measured in a global perspective. Drawing on leximetrics, a method to quantify norms, we make use of and extend existing datasets such as the CBR-LRI and EPLex. We identify three main functions of individual employment law in the protection/segmentation context: the standard-setting (S), privileging (P), and equalising (E) function. Assuming that the three functions are mutually independent, we develop the SPE typology – a typology of employment law models. Building on that, we sketch out a measurement concept that breaks the functions down into dimensions, aspects, and 35 observable indicators that are informed by specific legal norms. The SPE typology offers a genuinely new perspective for comparative labour regulation research, allowing a differentiation of SER patterns and path dependencies. The collection of data for 151 countries partly back to 1880 expands existing datasets conceptually, geographically, and historically.

Zusammenfassung

In Industriestaaten ist das Normalarbeitsverhältnis (Standard Employment Relationship; SER) mit starkem Arbeitnehmerschutz verbunden, während andere Erwerbsformen tendenziell vernachlässigt werden. Dennoch hat sich die vergleichende quantitative Arbeitsrechtsforschung der nord-westlichen Hemisphäre bislang auf eine Betrachtung des Gesamtniveaus des Arbeitnehmerschutzes beschränkt. Wir fragen, wie rechtliche Segmentierung im Arbeitsrecht, also die Exklusion und interne Gradierung von Arbeitnehmerschutz, in globaler Perspektive konzeptualisiert und gemessen werden kann. Zu diesem Zweck nehmen wir Bezug auf Leximetrik, eine Methode zur Quantifizierung von Normen, und verwenden und erweitern bestehende Datensätze wie den CBR-LRI und EPLex. Im Zwischenspiel von Schutz und Segmentierung identifizieren wir drei Hauptfunktionen individuellen Arbeitsrechts: die standardsetzende (S), privilegierende (P) und egalisierende (E) Funktion. Basierend auf der Annahme, dass die drei Funktionen voneinander unabhängig sind, entwickeln wir die SPE-Typologie – eine Typologie von Arbeitsrechtsmodellen. Daraufhin entwerfen wir ein Messkonzept, das die Funktionen in Dimensionen, Aspekte und 35 beobachtbare Indikatoren herunterbricht, die durch spezifische rechtliche Normen informiert werden. Die SPE-Typologie bietet der vergleichenden Arbeitsrechtsforschung eine völlig neue Perspektive, die eine Differenzierung von SER-Mustern und Pfadabhängigkeiten erlaubt. Die Datenerhebung umfasst 151 Länder und geht teilweise bis ins Jahr 1880 zurück, womit sie existierende Datensätze in konzeptueller, geographischer und historischer Hinsicht erweitert.

Contents

1. Introduction

The spread of non-standard forms of employment and informal work mark the current global debate on segmentation of labour markets. Increasing inequality, precarity and poverty provoke disputes on better labour regulation and universal protection for people depending on labour-related income. Beyond labour market processes, a cause for segmentation can be found in legislation itself, both by neglecting factual disparities and privileging "insiders" (Palier & Thelen, 2012). This has been a central issue regarding the critique of the Standard Employment Relationship (SER). The SER is considered to be built around a permanent, full-time remunerated employment relationship with a single employer and a single workplace. It has gained high scientific and public attention since the 1980s when deregulation and flexibilisation already had begun. Critical debates contributed to challenge the male breadwinner model and ethno-centrist constructions of labour markets (Mückenberger, 1985; Vosko, 2010; Stone & Arthurs, 2013; Fudge, 2017). However, a systematic international comparison of legal provisions concerning legal segmentation has not been developed yet, and a differentiated analysis of legal patterns inducing variations of SER has not been undertaken.

Although SER debates mostly focused on OECD countries, North-South relations and labour conceptions in the Global South have received growing attention. Here, informal employment and marginalisation of non-standard employees are especially detrimental phenomena. Research on informal employment, globalisation and labour standards in the ILO context has grown rapidly (Kucera & Roncolato, 2008; ILO, 2018b). Segmentation plays a major role in the employment-related monitoring of the UN human rights treaty bodies (CEDAW United Nations, 2013; CESCR United Nations, 2016). Recently, also research on colonial labour regulation has gained traction (Le Crom et al., 2017). However, there is still a lack of data accessible for quantitative studies on historical roots, including colonial and postcolonial labour legislation developments and the impact of international organisations (such as the ILO), and particularly on rules concerning protection and segmentation of workers around the globe.

It may seem surprising that we take the criteria of the SER as reference of analysis of global employment law, despite the high amount of informal and non-standard work particularly in the Global South. We assume, however, that formal employment patterns all over the world follow certain paradigms of labour regulation, hence a variety of 'SERs'. And we assume that the European paradigms of employment law, though differing in kind, have had a great impact on the paradigms in the Global South – despite of and even contradictory to the diverging labour status in these territories. These assumptions, however, are research hypotheses, standing up to empirical test. The results of this test will allow to draw conclusions: e.g. which impact Western SERs have had on the legal order in countries of the Global South, which diverging types of standardisation they were confronted with, which impact SERs gained as emerged in Western countries via colonialism, international organisations and/or trade alongside global value chains. This is why patterns of SER-oriented regulation matter, also globally – may they contrast, or even contradict, regulation patterns in the Global South.

We address these issues and ask how *legal segmentation* in employment law can be captured and measured at a global level to sketch the framework of a dataset designed to fill that gap. Our basic assumption is that national labour regulation can prevent, encourage, and tolerate labour market segmentation. We therefore identify and describe three functions of national individual labour legislation which mark fundamentally different aspects of protection and

segmentation, and altogether of incentives for waged work in general or under specific conditions. In functional terms, we call these the standard-setting function (S), the privileging function (P), and the equalising function (E).

The differentiation between these three functions allows us to develop an approach to comparative employment law that offers a variety of genuinely new perspectives. We use the different functions to design a typology of employment law systems – the SPE typology. The SPE typology expands the scope of previous unidimensional approaches: it measures not only the level of employment protection, but also informs about the degree of active legal promotion of certain parts of the labour force and – at the same time – the development of 'reactive' legal inhibition of discrimination against others. Thus, the gradation in protection, i.e., the legal segmentation in labour law, becomes visible. We expect that the SPE typology will enhance the debate on a differentiation of SER models and the issue of *universal* versus *particularistic* protection.

We develop the framework and collect data using leximetrics, a rather recently developed method for comparative research in labour law that quantifies norms, also named as quantitative method of "numerical comparative law" (Siems, 2005, 2018). We are aware that leximetric quantitative methods cannot be used for legal interpretation. Nonetheless, they can help to identify legal conceptions on a very general level and even serve as a starting point for qualitative research (Barenberg 2015). In that sense, we owe a lot to existing datasets such as the Cambridge Centre for Business Research Legal Regulation Index (CBR-LRI; Adams, Bastani et al., 2017) and the Employment Protection Legislation Database (EPLex) (ILO, 2015) that have brought about enormous progress in terms of transparency, informative value and comparability. So far leximetrics have been utilised to measure employment protection (Botero et al., 2004; Adams, Bastani et al., 2017; Freyens & Verkerke, 2017). Hence, the application to research on legal segmentation is totally new.

In a first step, we develop a set of indicators to grasp the strength of each of the three functions in typical employment regulations. We adapt CBR-LRI indicators that originally were meant to cover aspects of standard-setting and protection to our framework and add missing items for the privileging and equalising functions of employment law. We highlight the ambivalence of law, as sometimes different functions can not only be present in the same labour legislation, but even in the same set of norms. In a second step, we systematically collect, organise, evaluate and compare norms related to the three functions, measuring the strength of normative concepts by applying numerical values. We use the leximetric databases CBR-LRI and EPLex (ILO, 2015), but expand their country scope and time frame through the evaluation of (historical) laws from various sources, covering 151 countries, half of which back to 1880.

In the first part of this paper, we sketch the discussion concerning the emergence, unfolding and limitation of the SER and how to capture it; in this context, we also discuss the emergence and development of leximetrics (2). In the following section, the derivation of the three functions and their combination in form of the SPE typology will be introduced (3). This is followed by a description of the application of the leximetrics to the development, measurement and collection of indicators (4). Finally, the measurement concepts of the three functions will be presented (5), followed by a conclusion (6).

2. Historical development of the SER and how to capture it

Although the idea to quantitatively analyse the *protecting and segmenting* designs of employment legislation and historically built

national systems on a global level is new, the underlying questions have been asked continuously in the debate about the SER. Hence, normative concepts used to develop our typology are drawn from this debate that overall emerged in industrialised countries, however, also had spill-overs – partly due to ILO conventions and recommendations – to less developed ones.

Equally, the construction of a dataset designed to capture the field of tension between protection and segmentation in labour legislation does not have to start from scratch. Not only in terms of methodology, but also concerning data on law, the project can profit from existing databases. The number of datasets covering labour legislation with a numerical approach has been growing constantly over the last two decades. As will be shown, transparency, verifiability, and especially the usability of data differ highly, barring the inclusion of data in the current context. A common element and possible shortcoming is, however, that concepts are typically centred on legislation and their debates in industrialised countries. Although we start from this angle as well, we develop a most general typology that should be capable to capture general tendencies of legal regulation in the Global South.

2.1 The emergence and changing relevance of the Standard Employment Relationship

The SER has become a central point of reference in the field of labour – obviously first of all in Europe. It plays a major role for analysis, critique and reform discussions concerning segmentation of labour markets and inclusion policies (Supiot, 1999; Vosko, 2010; Adams & Deakin, 2014; Fudge, 2017). Despite its prominent place in scientific and public debates worldwide, its legal foundations, conceptual differentiation and historical emergence have not been thoroughly discussed from a comparative perspective, particularly with a view to types of standard-setting in countries of the Global South.

The emergence of different SER development paths cannot be studied without tracing labour legislation back to the late 19th/early 20th century. SER's historical roots have been described as grounded in a second phase of labour regulation in industrialised countries, following a first phase of 'market-making'.

In the 19th century, at the beginning of industrialisation, labour related legislation laid the legal fundament for the development of labour markets and labour as a commodity. Its emergence marked the transition from feudalism to capitalism by fully including also the subaltern classes into the market economy. In this *first phase of labour regulation*, bonded labour and slavery were abolished, freedom of contract and freedom of movement guaranteed also for workers, and basic limitations set including restrictions on child labour and on payment of wages in-kind (Finkin, 2014). Freedom of contract was a purely formal, legal construct, ignoring substantive aspects both regarding the low bargaining power of workers and their subordination within the employment relationship (Veneziani, 2014).

In the first half of the 20th century, employment legislation with a protective character was successively introduced – marking the beginning of the *second phase of labour regulation*. It limited both the freedom of contract of employment and the managerial prerogative via time restrictions for full-time labour, different forms and aspects of dismissal protection, complemented by further norms only applicable to employees. Social security policies and labour policies began to be developed separately, as employment protection was being implemented. Social security legislation nonetheless directly related to the employment relationship in many countries. At the same time, collective labour law emerged and unfolded in different systems of industrial relations. It guaranteed the effective functioning of trade unions includ-

ing the right to strike, autonomous progressive improvement of working conditions via collective agreements, and worker representation.

In the decades following World War II, legislation culminated in a successive supplementation of status-building legal standards for employees with a multifold incentive-giving, protecting and segmenting character and impact (Mückenberger, 1985; Deakin, 2002; Vosko, 2010). The introduction of variants of the SER in different countries thus marked the transition from an employment-at-will system (in the anglo-saxon world 'Manchester capitalism') to a modern welfare state-oriented system of employee status.

If the overcoming of medieval socio-economic legislation (feudal estates; guild restrictions) at the beginning of the modern era could be described as "from status to contract" (Maine, 1908 [1861], p. 151), the triumph of the SER could well be denoted as the progressive path "from contract to status". While the former transition relates to the legal development from both ancient Roman and feudal to modern 19th century law, the latter refers to the employee/worker status being understood as an ensemble of rights and duties ('acquis') defined independently from the waged worker's and employer's will, however, linked to a freely concluded contract of employment (Supiot, 2015 [1994], p. 32). In a very broad sense, Kahn-Freund (1967, p. 640) described this status as "a legal relation based on agreement but regulated by law, in the sense that its existence and its termination depended on the volition of the parties, but its substance was determined by legal norms withdrawn from the parties' contractual freedom". He thereby referred to an observation made by Dicey (2008 [1914], p. 201) on "decontractualisation" via employee protection legislation. In difference to the simple contractor, with a legally developed SER neither employer nor employee are completely free in negotiating the conditions of the labour contract. This status is limited to workers performing subordinate work under managerial prerogative. It provides them a certain social protection which is not or less provided to other forms of work, thus establishing a continuous incentive for workers to maintain and perform, even to defend their subordinate worker's status, and is legally creating different labour market segments.

The SER started to be discussed in industrialised countries in the 1980s, when its peak as uncontested model for labour development in practice had passed and non-standard (precarious) forms of employment and their regulation gained relevance (Puel, 1979; Teriet, 1980; Mückenberger, 1985; Bosch, 1986; Mückenberger & Deakin, 1989). Despite of the variants of the SER in the Western world, basic characteristics described in industrialised countries revolve around a continuous, full-time remunerated employment relationship under the managerial prerogative of a single employer and at a single workplace. Nonetheless, the fundamental meaning of the SER derived not necessarily from its quantitative empirical relevance in industrialised countries, but it served as the central point of reference and model for legislation (a guiding principle, though in part fictitious), not only in labour law, but often also in social security law. This conjunction shaped the differentiated mode of social protection of a given welfare state in general, including gender relations and the meaning of citizenship and nationality (Mückenberger, 1985, 1986; Vosko, 2010).

With the growing predominance of neoclassical economics and neoliberal reforms of labour markets in the 1980s, however, a phase of re-contractualisation or "recommodification" (Offe, 1984; Esping-Andersen, 2013 [1990]) of labour was observed in large parts of the world. It reflected the introduction of a new, differentiated guiding principle and thus a *third phase of labour regulation* (Deakin, 2002; Mückenberger, 2010, 2018).With globalisation, tertiarisation, and digitalisation of labour also the flexibilisation

of employment and the privatisation of protection were emphasised. The withdrawal of protective standards included the weakening of dismissal protection and collective representation rights (Hayter, 2011; Cazes et al., 2012). Additionally, the non-standard forms of employment increased, namely part-time, fixed term or agency work (ILO, 2016b; Dingeldey et al., 2017).With increasing labour migration, precarious employment and informal work gained relevance. In the context of a weakened, nevertheless not as such abandoned SER, the growing differentiation of society and life plans of individualised workers furthered de-standardisation of labour market participation and life course transitions. Consequently, the notions of employment relationship and self-employment and their differentiation came on the agenda anew. In this context, emerging anti-discrimination legislation played a major role.

It is true that the three-phase development model of the SER we have sketched so far stems both from European legal traditions and schools of thought. It hence shall not be generalised as a global legal development model. Instead, we assume that there is a variety of patterns causal for employment standardisation and 'SERs' and their change in the Global South. One pattern could be that the 'import' of norms via colonialism or via international organisations equally conferred elements of the three historical stages – however, in a compressed and/or in an assimilated manner. Another pattern could be that genuinely own normative standards were preserved or developed in territories of the Global South, potentially amalgamating with European standards. Yet another pattern overlapping, however, with the two preceding ones could be a clear-cut split between the 'formal' parts of the economies of Southern countries where European standards and their dynamics have been adapted, and the 'informal' parts where local, indigenous and traditional standards persist or have been newly developed. We hope to identify these – and other – patterns by taking North-Western SERs and their development patterns, not as worldwide generalisable, but rather as a litmus test for global legal comparison.

2.2 Capturing employment legislation development via leximetrics

Capturing the central aspects of protecting and segmenting norm development in the context of SER discussions on a global level requires a methodology both sufficiently complex and clear. In effect, the method, on the one hand, needs to provide an extreme reduction of complexity to provide clear visibility of the introduction, changes, and potential relations of norms. On the other hand, it must be expandable and contain information that can be taken as reference point for the understanding of legal concepts and subsequent qualitative studies. Leximetrics allows in a structured and transparent way to quantify qualitative information in form of textual data, specifically legal rules/norms. However, it brings about both considerable opportunities, but also potential shortcomings and failures that have to be confronted.

Leximetrics as we use them can be defined as coding and numerically measuring labour legislation for comparative means. Based on the research question, a set of variables apt to identify the sought-for legal conceptions on the level of comparison is developed and applied to the legislation to be analysed. The numerical results (index values) can be used to enhance visibility and simplify comparison of legal concepts by means of time lines, clustering, graphic representations, and statistical analysis (Adams & Deakin, 2015; Deakin, 2018; Siems, 2018).

Leximetric approaches face different forms of critique (Siems, 2005; Adams & Deakin, 2015; Siems, 2018). If one core task of comparative law is seen in the observation of the environment of norms in terms of their doctrinal, legal-cultural and non-legal embedding (Kischel, 2015, p. 93), leximetrics

fail by definition, since numerical quantification abstracts from the concrete socio-cultural backgrounds. Moreover, a purely numerical approach to norms cannot be seen as capable of the hermeneutic effort, which is usually connected with scholarly legal interpretation. Leximetrics, however, do not serve as a method for legal transfers or legal interpretation, differing here from traditional aims of comparative law. Nonetheless, by reduction of complexity, leximetrics can reveal and visualize past legal transfers and serve as starting point for analysis or more concrete comparative law research for a large number of countries. If leximetrics by coding law today is especially applied to measure foreign influence of statute law, differences in substantial law and vigour of legal rules (Siems, 2018), the method is especially apt to compare the functional design of employment laws.

The attempt to quantify legal norms of employment protection has produced several datasets and indicators, albeit with different limitations according to the above-mentioned criteria. The probably most familiar datasets are the following four:

1. The *OECD's Strictness of Employment Protection Legislation* (EPL) measures the regulation of employment since 1985 for 76 countries (OECD, 2004, 2013). It consists of three sub-indices concerning (1) the 'difficulty of hiring', (2) the 'rigidity of hours', and (3) the 'difficulty of firing'. It distinguishes the (i) protection of regular workers against individual dismissal; (ii) regulation of temporary forms of employment; and additionally, (iii) specific requirements for collective dismissals (OECD, 2019). As the name of the data collection indicates, it aims to measure the procedures and costs involved in dismissing individuals or groups of workers, and the procedures involved in hiring workers on fixed-term or temporary agency work contracts. While older publications used to emphasise the negative consequences of labour regulation on employment creation, research findings are much more diverse now (see overview in OECD, 2019). Nonetheless, the OECD is essentially taking an economic perspective that measures investment-related aspects in terms of time and easily calculable costs. Protection and segmentation as such are not the focus. Since there is no referencing to sources (norms etc.) that justify the value of each indicator, the database is not suitable in the context of the objectives of this study.
2. The *World Bank* ranks countries along the *Rigidity of Employment Index* in the *Doing Business (DB)* report. The dataset covers 190 economies worldwide – and therefore is the biggest of all datasets. When the DB project was launched in 2004, the World Bank's assessment of existing regulations in developing countries has been predominantly negative (Botero et al., 2004). Rigid labour market policies were blamed for poor labour market performance, such as low productivity, high unemployment, and informal employment, while more flexible regulatory frameworks were perceived to be associated with increased growth and employment creation (Lee et al., 2008). As a result of severe criticism, the ranking was eliminated from the measures of the overall business conditions that make up the 'ease-of-doing business' index. However, renamed as *labour market regulation index* it is still part of the annexes of DB reports. With the addition of the last element, the index now covers four aspects: (1) difficulty of hiring; (2) rigidity of working hours; (3) difficulty of firing (redundancy rules and redundancy costs); and (4) job quality (some anti-discrimination regulation, the existence of maternity and sick pay). The 'mission' behind the widened dataset is to measure *"excessive or insufficient labor market intervention and investigate the state of social protection"* (World Bank, 2019, p. 61). With the objective to gu-

arantee the comparability of data, World Bank uses an exemplary worker model, making several specifications concerning age, job duration, type of business etc. As in the case of the OECD, the set of normative sources used for the determination of each indicator's values are not published. For research on SER-related aspects, the database is hardly usable.

3. The ILO created the *Employment Protection Legislation Index* (EPLex) (ILO, 2015) to replace the existing *Digest on Termination of Employment Legislation*. Starting with data for 2009, the *EPLex* Summary indicators provide information for 103 countries by 2019. EPLex is supposed to produce quantitative indicators of employment protection legislation in the area of regulating individual dismissals (regular contracts). Five areas are distinguished: (1) substantive requirements for dismissal; (2) maximum probationary period, including all possible renewals; (3) procedural requirements for dismissals; (4) severance and redundancy pay; (5) avenues for redress (ILO, 2015; Freyens & Verkerke, 2017). Furthermore, the database offers information on employment contract provisions concerning trial periods and fixed-term contracts.
4. The *CBR-LRI* covers changes of *labour laws* for 117 countries over the period from 1970-2013 (Adams, Bastani et al., 2017). It distinguishes five areas, producing five sub-indices measured by altogether 40 indicators: (1) the definition of the employment relationship and different forms of employment, including the regulation of the parties' choice of legal form and the rules relating to part-time, fixed-term and temporary agency work; (2) working time restriction; (3) dismissal protection; (4) employee representation; and (5) industrial action. In contrast to the first two indices, the authors of *CBR-LRI* do not want to measure 'costs', respectively 'strictness' of rules or 'rigidity', as in the case of the OECD or the World Bank. The authors' 'mission' is to research the impact of laws and regulations on labour market outcomes and, more generally, on the economic performance of firms, sectors and nations. Hence, they perceive it as a matter of research whether or not the respective legal norms may impose costs on firms (Adams, Bastani et al., 2017).

Overall, the CBR-LRI and EPLex are two highly sophisticated leximetric databases that we can build on. Concerning the fact that already selective legal protection may lead to segmentation on one hand, and that legislation can counteract discriminative segmenting forces on the other hand, the highly transparent CBR-LRI can be expanded. In terms of selectivity of employment protection legislation, the EPLex database includes some categories concerning the 'scope of regulation' that enables an exploration of excluded categories of workers and enterprises (mainly by size) (Aleksynska & Eberlein, 2016). But although these indicators can be found in the existing datasets, a more encompassing database that allows the systematic measurement of legal segmentation or universal legal protection of employees is still missing. Furthermore, the global outreach and historical depth can be improved.

3. Functional differentiation of employment law

Resulting from the focus on structural inequality between workers and employers, comparative research typically focuses on the protective function of individual labour law. Next to this, the function of market-making referring to fundamental rules constituting labour markets, like prohibitions (child labour, slave labour, forced labour etc.), or certain formalities, rights and duties marking the difference between contracts of service (employment) and contracts for services (self-employment), plays a significant role. Functional differen-

tiation of individual labour legislation as to its inclusive or exclusive normative effects is typically neglected (Mückenberger, 1985; Mückenberger & Deakin, 1989).

In order to highlight these aspects, the protective function of individual labour legislation has to be differentiated. The protective function in the proper sense refers to the counteracting of dangers resulting from structural inequality, i.e., rules formed by the "desire to protect persons who […] owing to inferior bargaining power, are liable to be exploited by others", as Kahn-Freund (1967, p. 641) put it. For the norms typically being applicable to all employees in an equal manner, we will speak of the *standard-setting function* of protective labour legislation.

However, when the legislator exempts certain groups from protective measures or by law introduces hierarchies of protection – and thus differentiates between employees in a selective manner –, it seems suitable to speak of a *privileging function* of labour legislation. This privileging function necessarily implies exclusion from protection of those segments of the labour force not covered by the privilege.

Another dimension of labour regulation concerns the protection of social groups of employees who are discriminated against, as part of a cultural phenomenon or related to non-standard employment contracts. Here we will speak of the *equalising function* of labour regulation – which means that labour regulation tries to prohibit or counteract such discrimination. As will be shown, the equalising function follows another logic than the privileging function, since it addresses disadvantages conferred by social forces, whereas the privileging function reduces the applicability of norms set in context of the standard-setting function to certain categories of workers. Both functions can therefore go alongside.

It may be held disputable whether a proper distinction of the three functions can be fully maintained, particularly in a research on global labour law. Standard-setting employment law norms might be regarded as having a privileging function from the outset as covering (like most labour law norms do) 'employees' only. By using the legal term 'employee' as a criterion of coverage, these norms automatically exclude informal workers, the grey zone of precarious self-employed forms of work, not to speak of non-market related home and care work. These non-'employee'-based forms of work, however, determine large parts of the economies and labour markets in the non-OECD worlds. They play an enormously important reproductive role all over the world.

Despite the obvious importance of non-employee-work, our research is able to grasp only norms and regulation related to the employment relationship – i.e., with employees as parties involved. Non-employee-work reaches far into the spheres of family policy, communal policy, redistribution policies, social policy – spheres requiring competences and methodologies which go far beyond labour law analysis. We determine and measure protection, privileging and equalising by legal norms related to employment only. Certainly, this allows for the evaluation and assessment of norms covering 'employees' according to the degree they apply, or fail to apply, to working populations in countries with an estimated high degree of informal work. But we are unable to enter into a similarly exact analysis of instruments of social integration of working people 'beyond employment'.

3.1 The standard-setting function

The protective standard-setting function of individual labour legislation as such covers all norms that are designed to offer active legal protection of employees. It counteracts the imbalance of power, the danger of abuse of power, and the shifting of risks from the employer to the employee. We speak of standard-setting when norms establish generalised rules for employment contracts

which employers have to respect regardless of special conditions of their employees and in general cannot circumvent by contractual terms. The standard-setting function stands at the heart of labour regulation designed to concretise the notion laid down in the ILO founding charter in the Treaty of Versailles and the Declaration of Philadelphia 1944 that "labour is not a commodity" and thus should not be handled like an article of commerce (ILO, 1944; cf. Herz, 1954; ILO, 2018a).

The standard-setting function of individual labour legislation intervenes especially on two levels to limit the employer's power of imposing terms of contracts. They limit the employer's power of disposition of their workers' time, and they limit the employer's power of termination of contract. Limitations of working time aim to safeguard the worker's health and reproduction, but also their recreation and well-being including socio-cultural participation, and have been a central issue of labour legislation since industrialisation (Boulin et al., 2006; ILO, 2018a). Standard-setting relates to maximum hours of work and minimum rest periods on a daily, weekly, but also yearly basis including paid holidays, the right to paid leave and overtime restrictions, regulating the distribution of time between employer and employee. Limitations to the termination of contracts are designed to reduce the employer's right to terminate employment relationships uncompensated and at free will only, thus stabilising the status of employees. Regulation in employment law thus aims at reducing the level of insecurity regarding continuity of employment and income, but also to reduce poverty risks due to layoffs, e.g. in times of crisis (ILO, 1995).

Central aspects of legislation in terms of the standard-setting function of individual employment law are thus concentrated on two sets of questions: (1) how is the employee's right to reproduction and free time guaranteed, or which legal time limits does the contractual right to the employee's capacity to work face, and (2) how complex and strongly is the employee's job security in terms of dismissal protection developed?

3.2 The privileging function

Employment legislation can protect all employed workers equally. Protection, especially if strong, however, can nonetheless also be applicable selectively leaving many workers less or unprotected. In the case of selective legal protection that, however, is not particularly aiming at the protection of highly vulnerable workers (trade union representatives, aged workers, disabled workers etc.), we speak of the privileging function. Legal privileges and segmentation thus are closely related – limiting protection to privileged groups of workers implies that the other groups are excluded from protection (we call that legal segmentation as a counterpart of the privileging function of labour law).

The application of the privileging function covers a wide range of norms. As mentioned in the introduction of this section, this already holds for norms covering employees only. A typical set of privileging rules exclude certain groups of workers from special protection provisions. This can be for the size of the enterprise (typically the exclusion of small-scale enterprises), for the type of activity (for example blue-collar versus white-collar workers), or for type and level of formal education. Another set of privileging rules augments protection for certain groups in comparison to the rest, especially based on seniority.

Characteristically, the privileging function sets incentives for acquiring and maintaining certain positions in employment, thus normalising these positions and marginalising others. Seniority e.g. rewards length and continuity of service, thus setting strong incentives for continuity of gainful employment and loyalty towards the company. Seniority rules can occur both purely and in a mixed form, the level of protection being depen-

dant on a mix of length of service, age, family status etc. (Veneziani, 2014).

Hence, seniority rules typically exclude workers with discontinuous or interrupted work careers – often being females with care roles. Accordingly, the segmenting effect of law can – and frequently does – especially counteract the principle of gender equality. It can also disadvantage certain ethnical groups, migrants or people from educationally disadvantaged backgrounds and so on. In fact, some authors consider precarity, insecurity and informality of employment rather as the norm than the exception of the global labour relationship (Breman & van der Linden, 2014; Betti, 2016).

By definition, norms conceding special rights to workers for their higher vulnerability do not form part of the privileging function. Special protection due to disability, family-related maintenance obligations, age and other not work-related factors as well as for participative and collective labour law reasons (union officers, data protection officers and so on) is therefore not considered to be excluding or marginalising.

3.3 The equalising function

Labour regulation can, however, also counteract discrimination. Exclusion, marginalisation and segmentation of groups of workers can result from stigmas related to gender, race, and culture that are not linked to the employment relationship as such, but also from vulnerabilities associated with a comparatively weaker employment status. Norms that serve to inhibit, prevent or overcome segmentation and discrimination of specific groups of workers can be described as comprising an equalising function. In this context, we differentiate between *person-related* and *contract-related discrimination* of workers.

Discrimination is *person-related* when the person is unable to influence the factors that are used as a base for differential, negative treatment. Prejudices and stigmas present in society do not stop at the gates of companies, although at least from a generalised point of view they are independent of the profit orientation of capitalist companies. Nonetheless, they work as segmenting forces, if they are not stopped. Groups thus affected may be disadvantaged or discriminated against because of sex and gender, race and ethnical background, age, religion and belief, disability, or sexual orientation, just to name the most prevalent.

Discrimination and disadvantaging treatment in labour can become manifest in all stages of the employment relationship. Concerning terms and conditions of the employment relationship, wages as core elements of the employment relationship must be emphasized since discrimination, especially in the gender dimension, plays a fundamental role in the field of labour. Functionally, labour legislation can intervene here with an equalising objective to neutralize or undo culturally based discrimination. Legal intervention can cover all types of discrimination or address specific discriminatory grounds. Legislation can be used to simply prohibit discrimination, or also allow for or even prescribe affirmative action or 'special measures' in order to overcome structural discrimination.

Disadvantages and discrimination are *contract-related*, if differential or discriminatory treatment is rooted in the peculiarities of the contract being used. Structurally, more vulnerable workers with working conditions differing from the 'standard' are susceptible to marginalisation beyond the mere contractual level. This may be linked to non-standard forms of employment like part-time contracts, fixed-term contracts or temporary agency work (ILO, 2016a), but also to areas of responsibility or hierarchies in the pay scale, among others. The authors of differential treatment and discrimination beyond the mere contractual conditions may be the employer, but also other workers or third parties. Legal reactions to these kinds of discrimination or disadvantageous treatment

can focus on the outlawing of potentially discriminatory or disadvantaging contracts or especially discriminatory terms as such; or prescribe equal treatment in some or all aspects which are no necessary side-effects of the contractual dispositions.

Part-time employment often means low wages, reduced job-security, reduced access to social benefits and discrimination in other terms of employment (ILO, 1996). Temporary employment contracts and agency work are especially suitable for abusive practice of both employers and colleagues, as reduced dismissal protection results in defencelessness vis-à-vis the employer and weakness in collective action. Therefore, functionally equalising legislation focuses on restriction in terms of allowed cases (substantive restriction), but also on maximum duration (ILO, 1974, 1995). On the other hand, equal treatment has been a major issue in the international context, especially for temporary work (Vosko, 2010).

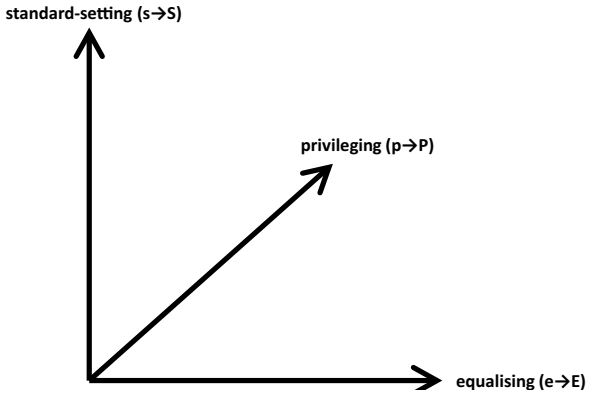
3.4 Interrelation between different functions

The determination of these functions of employment law and of variables to depict them are the methodological starting point of our research. They will allow for tracing the historical development of employment law standardisation and the segmentation of the labour market induced by it.

There is a close, though divergent relationship between the privileging and the equalising functions of labour law. Both relate to labour market segmentation, however, differently. The equalising function relates to personal conditions which cannot be influenced by the workers, and to secondary socio-cultural effects of non-standard contractual conditions. Against this, the privileging function typically relates to objects that involve an act of choice, such as the size of the company or enterprise to work at, loyalty to the company, or under which legal regime the contract should be made. The aim of equalising norms is thus to eradicate de facto limitations to participate in the labour market. The aim of privileging norms is to reward certain groups of workers for their choices, and in effect steer the behaviour of workers in the long run. Equalising norms cover only prohibition and special action to overcome differences, whereas privileging norms cover a wide range of possible types of norms. If the aim is to discern the kinds of work and workers a country's employment legislation is promoting and discouraging and observe the changing lines of segmentation in the labour market, all three functions must be described.

The three described functions are understood to be mutually independent and create a three-dimensional realm of possibility (see Figure 1).

Figure 1. Functions of employment law



Source: own presentation.

However, the differentiation of functions is an act of abstraction: all three functions can be present in the same labour legislation, and even in the same norms. An example would be to provide for standard-setting norms on employment protection (function S) in a selective manner (function P), but securing non-discrimination for female workers (function E). This also makes clear that privileging and equalising functions can easily co-exist, as they may address different topics or groups. And even if equalising norms may help to diminish differences

of employment conditions between various groups of workers, they do not offset privileging functions unless these are transferred into standard-setting norms equally valid for all workers. To illustrate their difference, Table 1 provides examples of weak and strong manifestations of the three functions.

A thus differentiated perspective offers the possibility to better depict the development of different national models of what has been described as the SER since the 1980s (Mückenberger, 1985; Bosch, 1986; cf. also the historical account by Deakin, 2013; Fudge, 2017). It nonetheless also offers an opportunity to get a glimpse of the 'other side', of who is not or not fully protected (Mosoetsa et al., 2016).

3.5 SPE typology of employment law

In terms of the three functions, national employment legislation is all but uniform. Countries around the world have neither all introduced the same measures, nor have they done so at the same time and with the same strength of regulation. The differentiation of the three functions of employment legislation therefore allows to identify different models or ideal types of employment law. We develop our typology essentially by deduction, and although we do not expect all types to be historically relevant, we assume that it is able to capture all systems of employment law over time. When referring to countries in the following, we aim to make our types more vivid. They are nevertheless the result of deduction and normative analysis, not empirically found ideal types.

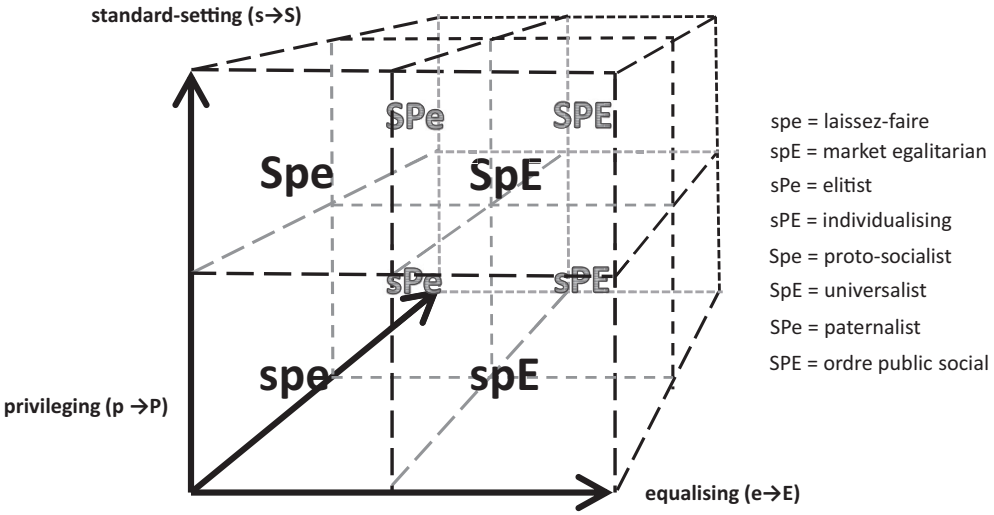
If we only differentiate between high and low strength of regulation of either function, symbolising strong legislation by the capital letters "S", "P" and "E", and weak legislation by the small letters "s", "p", and "e" (e.g. high standard-setting = "S" ; low standard-setting = "s"), by logical deduction we come up with a typology of employment law that differentiates between eight types (see Figure 2). Between 'no' or 'low' regulation in all three functions ('spe') and 'high' regulation in all three functions ('SPE'), six further possible patterns exist. Of course, this logical set of patterns serves only as a matrix for the classification of any country in a certain

Table 1. Weak and strong manifestation of the three functions of employment law

s: weak manifestation of standard-setting norms » no or weak general dismissal protection (e.g. no notice period or severance payment) » no or few working time restrictions (e.g. normal working weeks of 60 hours or more) » no or little annual paid leave (e.g. 5 days of annual leave)	S: strong manifestation of standard-setting norms » strong general dismissal protection (e.g. dismissal only in case of serious misconduct) » strong working time restrictions (e.g. normal working week of 35 hours) » high level of annual paid leave (e.g. 30 days of annual leave)
p: weak manifestation of privileging norms » employee status depends on specified legal criteria (e.g. easily recognisable criteria for employment contracts) » no or few seniority privileges in dismissal protection (e.g. all workers enjoy the same notice period) » no labour rights exemptions for small enterprises or only for very small ones (e.g. dismissal protection is independent of the size of the company)	P: strong manifestation of privileging norms » employee status depends on the will of parties (e.g. employer can define the status of an employee as self-employed) » pronounced seniority privileges in dismissal protection (e.g. length of notice period rises with the contract duration) » pronounced labour rights exemptions for small and medium sized enterprises (e.g. workers in small companies are excluded from dismissal protection)
e: weak manifestation of equalising norms » no or weak anti-discrimination legislation covering gender and race (e.g. lower wages for female workers are not sanctioned) » no or weak equal treatment legislation for non-standard forms of employment (e.g. proportionally lower annual leave entitlement for part-time employees than for SER) » no minimum standards (e.g. no or selective minimum wages)	E: strong manifestation of equalising norms » strong anti-discrimination legislation covering gender and race (e.g. female workers enjoy the right to equal pay for work of equal value) » strong equal treatment legislation for non-standard forms of employment (e.g. same annual leave entitlement for part-time employees as for SER) » strong minimum standards (e.g. a universal minimum wage)

Source: own presentation.

Figure 2. SPE typology of employment law



Source: own presentation.

historical stage and does not insinuate any empirical probability. It is quite possible that empirically some patterns have never existed, whereas others might be very predominant.
In this sense, we have labelled the ideal type with low regulation in all three functions of employment law (spe) as *laissez-faire model*. It refers to the 'collective laissez faire' with strong institutions of collective bargaining used by Kahn-Freund (1959) to describe the British post-war model, but fits as well to Scandinavia before the 1970s. From the legislative perspective, the same result can be observed for countries and periods prohibiting or not counting with strong workers unions, where negotiation of employment conditions is left to the individual, respectively the market. Three more models equally weak in terms of the standard-setting function can thus be discerned. *Market-egalitarian model* (spE) we have named a type with strong anti-discrimination legislation that does neither contain strong standard-setting nor privileging functions. This model we would expect to be characteristic for the federal US legislation in the late 20th century, but also current Scandinavian countries, if generally applicable collective agreements are ignored. As *elitist model* (sPe) we term a type where rules of employment protection are highly selective and only apply to small groups of workers, possibly to be found in some states with strong authoritarian tradition. The ideal type combining strong privileging and equalising functions with a weak standard-setting function is called *individualising model* (sPE), since the setting of generalised standards valid for all is hardly present here.

Four ideal types with a strong standard-setting function contrast these models. If only the standard-setting function is strongly developed (Spe), we speak of the *proto-socialist model*. Here, protective norms do not show distinction within the working class, but distinction based on other aspects cannot be ruled out. This model reflects early working-class aspirations concerning employment legislation which considered gender and racial discrimination as secondary and did not reflect on non-standard types of employment. Possibly, this model can be found in countries influenced by the Soviet Union. In difference, the ideal type adding strong anti-discrimination legislation to the strong standard-setting function we call *universalist model* (SpE). This might be found in some Scandinavian countries since the late 1970s, but also Latin American countries

with progressive labour legislation. The ideal type showing strong regulation in the standard-setting and privileging functions (SPe) we term *paternalist model*. Here, the state does not only protect workers from exploitation by standard-setting, but also provides incentives in a selective manner, aiming to steer career planning via labour legislation. As this ideal type does not incorporate anti-discrimination law, it promotes paternalist male breadwinner family models. Here, one might think of the authoritarian states in Southern Europe before democratisation. Finally, *ordre public social model* (SPE) we name the non-universalist, highly protective, but selective ideal type. Strong worker protection is combined here with anti-discrimination legislation on one side, but paternalistic incentive-based steering on the other hand. Examples may be found in contemporary states with authoritarian leadership.

4. Methodology

Traditional methods of comparative law are hardly suitable to compare legal norms on the standard-setting, privileging and equalising functions of labour legislation with the aim to classify countries, trace legal developments in historical terms, and detect supranational patterns and changes on a global basis. Hence, the method of choice was a quantification of legal norms, based on indicators sufficiently general in order to capture comparable developments. For this aim, existent indicator-based comparative research on employment legislation has been taken into account. The complexity caused by the large set of countries and the long time frame to be considered imply technical difficulties especially concerning access to sources and quality of data. Therefore, certain (technical) methodological adaptations were necessary.

4.1 Leximetrics

Although our dataset draws on the CBR-LRI data and incorporates these data in a first step, methodologically it is not simply an enlargement of CBR-LRI covering further dimensions. Differences exist not only in terms of countries and the time frame covered, but also methodologically and technically.

With regard to coverage, the SPE-dataset extends the 23 incorporated CBR-LRI indicators by twelve new indicators, totalling 35. The set of countries is enlarged from 117 to 151. In terms of space and time, extension in historical depth (from 1880-2018) is undertaken for England (UK), France and Germany and their 73 former colonies and alike dominated countries.

Methodologically, a major difference results from the SPE project's concentration on public legal labour policies. Whereas CBR-LRI looks at the normative regulation from the employee's perspective or the 'law on the ground', thus including regulation in collective agreements if generally binding or common, SPE focuses on the 'law in the books'. Although the inclusion of generally binding and typical rules in collective agreements (if detected in historical research) visualizes the rules valid for most workers, it disguises the dates of public policy developments and often also legislative gaps relevant for marginalised workers. In the case of Germany for example, the CBR-LRI shows how working times have been reduced to below 40 hours and overtime usually has to be paid; the figures nonetheless do not show that for workers not covered by collective agreements, the normal working week by law is 48 hours in a six-months-average, with extension to 60 hours allowed, if the average is reached.

Also in other cases where social norm-building via collective bargaining prevails (like the Scandinavian countries), the leading collective agreements may show hegemonial norms, but typically leave margins for sectors not covered by collective agreements, and even for sectors with weaker trade

unions. They do not show the legal limits set by political decisions. Consequently, for final data to be published, values based on collective agreements taken from the CBR-LRI need to be adjusted. Certainly, this will offer new opportunities for analysis of exclusionary state-based regulation. A comparison of SPE and original CBR-LRI-values e.g. would show the margin of negotiation and potential segmentation between the 'law in the books' and the norms valid for the majority of employees. Ideally, this would be complemented by further differentiating normative layers for administrative and jurisprudential norm-setting.

4.2 Concept development and scaling

We followed the guideline of measurement theory also outlined by Adams, Bastani et al. (2017, 66f.) and developed a construct for the concept of legal segmentation in employment law. That first meant identifying its main functions, i.e., standard-setting, privileging, and equalising, the main dimensions of each function, and, where necessary, central aspects of each dimension. In a second step, we searched for indicators for each dimension and aspect, i.e., observable, tangible manifestations of the abstract phenomena. To establish a certain validity, i.e., ensure that we measure what we aim for, we looked for at least three indicators for each dimension or aspect. Often, we could make use of indicators of the CBR-LRI, sometimes they had to be rearranged; the remaining indicators were developed and collected by us. The measurement concept is presented in the following section and in Table A1 in the appendix.

Each indicator was informed by concrete legal norms that needed to be classified on scales. We decided to follow Adams, Bastani et al. (2017) and used standardised scales ranging from 0 to 1 where low values represent low levels and high values high levels of the phenomenon at hand. The nature of each indicator's scale depended on the number of possible states that we could think of; in the end, all indicators that we developed had either binary (true and false) or ordinal scales, while some of the CBR-LRI that we incorporated had even continuous scales. Regarding the assignment of values on our ordinal scales, for now we hierarchically ordered the possible states according to the respective function and split scales in equal parts. This interim solution will be refined by theoretical reasoning and statistical analysis once the data collection is completed and all empirical states are known. The inclusion and rearrangement of CBR-LRI indicators sometimes meant that scales needed to be reversed, i.e., when the privileging function opposes the protecting function measured by the CBR-LRI (for details see Table A1 in the appendix).

4.3 Rationale of the coding process and sources

The spatial and historical extension of the SPE dataset brought about tremendous difficulties and a relevant susceptibility to errors. Whereas for countries of the Global North current legislation was easily accessible via ILO's NATLEX database, many national databases and secondary literature, difficulties grew for research in the past and for many countries less discussed in international publications, especially of the Global South. Language barriers, but also political borders like the Iron Curtain as well as changing borders in the context of wars, decolonisation and revolutions imposed additional challenges. Whereas certain mistakes could be avoided by quality assurance, a certain degree of inaccuracy and gaps was inevitable in the dimensions of the project. We developed a set of principles and techniques which next to the avoidance of unnecessary errors allowed for transparency of results and intervention in their correcting.

Research, data collection and coding have been designed to realise the following five principles which in practical coding were interconnected:

1. reliability of used sources
2. correctness and accuracy of data and coding results
3. transparency, traceability and verifiability of results and processes
4. accessibility of data and results
5. usability of data and results

Although reliability of sources should seem to be self-evident in scientific research, this is a complex issue for the coding of historical law on a global scale. Laws are published in official gazettes and collections which rarely could be accessed online in historical perspectives. Translations to English, French and Spanish – the languages used in the project for coding – that could be accessed were often not official translations and often did not cite the exact source of the original publication. In many cases, changes in laws were not easily traceable. Translations had to be made by coders familiar with the language or by technical means. Although the ILO provides for excellent historical legal databases (next to contemporary NATLEX especially the Labour Law Documents 1989-1995, Legislative Series 1919-1988, and the Bulletin of the International Labour Office 1902-1907 [German]/1906-1919 containing official translations), the published laws represent only a small part of legislation. Frequently, sources did not contain information on the entering into force of laws or parts thereof, provided only excerpts of laws or only the title or subject of regulation.

Since SPE does not count with a global network of historical employment law specialists in all countries covered, we decided to use the best data accessible and simultaneously visualise data deficits. Data sources and data quality were recorded in a standardised manner and documented in coding instructions (FORTHCOMING). Wherever possible, next to the relevant laws and excerpts of the applicable norms secondary literature was excerpted. Here, systematic use was made of the publications of the ILO and human rights treaty bodies' committees of experts' periodic reports, observations and direct requests in the context of relevant international conventions. ILO's EpLex (ILO, 2015) was systematically consulted, as was the International Encyclopedia for Labour Law and Industrial Relations IELL (Blanpain) with monographs on 78 countries.

For the coding results, both the result and the relevant year were coded with a traffic-light system, with *green* meaning 'sufficiently secured', *yellow* meaning 'high (predominant) probability of a certain outcome with lack of certainty', and *red* covering data that were only probable based on available data, or not available at all.

The project offers the opportunity to provide not only access to results, but also to sources and processes. The aim is to overcome legal loopholes and errors in the long run by offering a dataset sufficiently interesting to experts on a global level, as well as open to participation in data development. These aspects were reflected in the process of coding being traceable, verifiable, and accessible. We realised these standards through the establishment of an own dataset including not only the data sheet with our coding results, excerpts of laws and secondary sources and comments to the values found, but also by providing country specific information including lists of all coded sources for e.g. replication studies. The dataset will be publicly available through the interactive, web-based information system on global dynamics of social policy: the Global Welfare State Information System (WeSIS).

Uniform coding was achieved through coding trainings for all incoming coders and clear and concise coding instructions for a standardized coding process. Constant, regular feedback meetings with all coders involved safeguards the unification and comparability of methods and issues. Final

results were based on the four-eye-principle, concluding with standardized quality checks.

5. The measurement concept

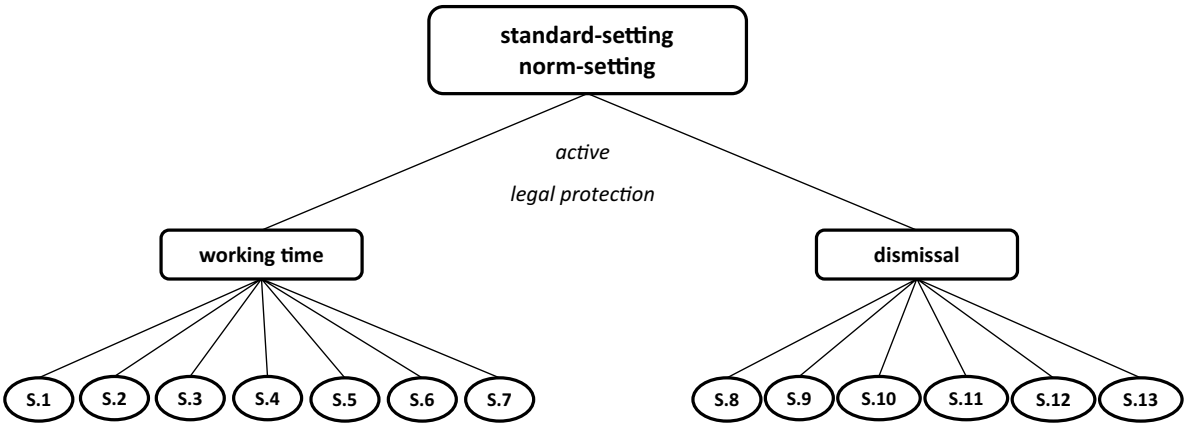
This section describes the measurement of the three functions *standard-setting*, *privileging*, and *equalising*. Each function consists of two relevant dimensions and – in the case of equalising – two aspects that are measured by various indicators based on legal norms. Our measurement concept heavily builds on 23 individual employment law indicators of the CBR-LRI (Adams, Bastani et al., 2017), partly putting them in a broader, partly in a different context. The CBR-LRI indicators are supplemented by 12 indicators that we designed and collected ourselves. In the following, we give an overview about the dimensions, aspects, and indicators of each function and highlight their relevance. A detailed description of indicators and scales provides Table A1 in the appendix, while specific underlying norms and sources are documented in the CBR-LRI coding template (Adams, Bishop et al., 2017) and the SPE country documentation [FORTHCOMING]. The section closes with some remarks on index calculation.

5.1 Measuring the standard-setting function

The measure of the function standard-setting bears a great resemblance with previous employment protection measures as it captures the level of protection. The function refers to active norm-setting that defines general standards of legal protection. As previous measures, it focuses on the two core dimensions of individual employment law that shape the SER: *working time* restriction and *dismissal* protection (see Figure 3). The measure solely relies on CBR-LRI indicators, and the operationalisation of the dimensions is almost identical to that of the CBR-LRI dimensions *regulation of working time* and *regulation of dismissal* (see Adams, Bishop et al., 2017, pp. 12–15).

Looking at the dimension *working time*, indicators S.1 to S.7 measure standards of protective legislation concerning yearly reproduction times (length of paid annual leave entitlements, S.1; and number of public holidays, S.2), fixed direct limits to daily and weekly working times (maximum daily working times, S.7; duration of normal working week, S.6; and limits to overtime working, S.5), and indirect (monetary incentives in form of premia) limits to overtime work (premia for overtime work, S.3; and premia for weekend work, S.4). Higher indicator val-

Figure 3. The measurement concept of the standard-setting function



Source of indicators: italic symbols=own coding, bold symbols=CBR-LRI.

Source: own presentation.

ues represent higher standards, i.e., stronger working time restriction. The measure is identical to the sub-index *regulation of working time* of the CBR-LRI (see Adams, Bishop et al., 2017, pp. 12–13).

Concerning the dimension *dismissal* protection, the indicators S.8 to S.9 cover standards regarding notice period, compensation, constraints, and unfair dismissal. The length of the legally mandated notice period (S.8) clarifies one aspect of the stability of the employment relationship, as it shows the expectable remaining period of paid labour before effective termination of the employment relationship. The indicator scores the length of notice given to a worker with three years of employment, which hints at the privileging function of employment law as it attaches the amount of protection to continuity of employment. Furthermore, indicator S.13 evaluates the burden of notification for dismissal, giving an oral statement to the worker the lowest and the need of permission by the state or a third party the highest rate.

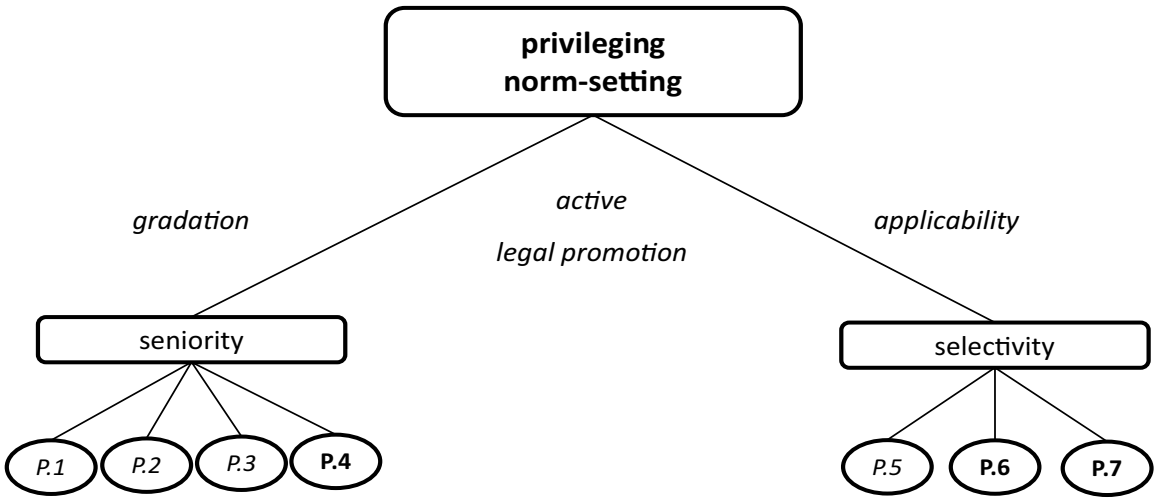
Regarding redundancy compensation (S.9), the indicator compares the amount payable to a worker made redundant after three years of employment. Higher compensation means better protection for the time of unemployment or acceptance of a lower paid employment. Moving to constraints, indicator S.10 measures whether the law imposes procedural constraints on dismissal. Scores reflect protection by depending on the positive effects on stability of the employment relationship in case of failure to follow procedural requirements. Furthermore, substantive constraints on dismissal are captured by indicator S.11. Turning to unjust dismissal, indicator S.12 compares remedies for unfair dismissal, rating reinstatement as the highest standard.

Our dismissal protection measure differs from the CBR-LRI sub-index *regulation of dismissal* (see Adams, Bishop et al., 2017, pp. 13–15) by excluding three indicators that capture privileging features. Consequently, two indicators (minimum qualifying period and priority in re-employment) were moved to the privileging function, while the remaining indicator (redundancy selection) was excluded from the measurement concept and replaced by a more specific item.

5.2 Measuring the privileging function

The first form of legal segmentation – the privileging function of employment law – refers

Figure 4. The measurement concept of the privileging function



Source of indicators: italic symbols=own coding, bold symbols=CBR-LRI.

Source: own presentation.

to legal norms that actively promote specific parts of the labour force (*legal promotion*). These norms link employment protection to specific conditions that are covered by the two dimensions *seniority* and *selectivity* (see Figure 4). High scores on this measure reflect a high level of norm-related privileging. Although almost half of its indicators stems from the CBR-LI, the privileging measure supplements the concept of Adams, Bastani et al. (2017).

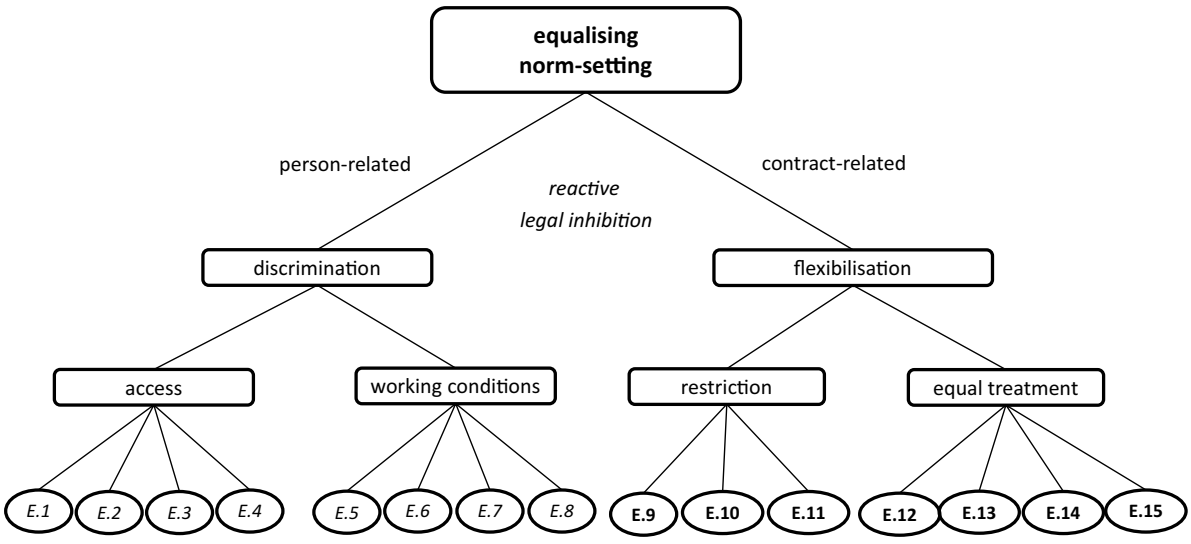
The dimension *seniority* refers to norms that specify a gradation of employment protection based on the length of service. The indicators focus on dismissal protection and assess whether the legally mandated notice period (P.1) and redundancy payments (P.2) increase with length of service. Furthermore, the dimension captures whether length of service is a decisive criterion for redundancy selection (P.3) and re-employment (P.4). While the first three indicators have been newly designed, the last indicator stems from the *regulation of dismissal* sub-index of the CBR-LRI (see Adams, Bishop et al., 2017, pp. 13–15).

In contrast, the dimension *selectivity* covers norms that regulate the applicability of employment protection and decide on the in- and exclusion of various parts of the labour force. Its indicators assess whether dismissal protection is applicable in all enterprises or only in those with larger workforce (P.5), whether the employment status and thereby the applicability of labour protection is defined by law based on specific criteria or at free disposal of the parties (P.6), and whether there is a period of service required before a worker qualifies for general protection against unjust dismissal (P.7). While the first indicator was newly designed, the two other indicators were taken from the *different forms of employment* and *regulation of dismissal* sub-dimension of the CBR-LRI (see Adams, Bishop et al., 2017, pp. 10–15). Since the CBR-LRI measures the strength of protection and the privileging or excluding character of norm-setting is rated low, the scales of the two indicators have been reversed.

5.3 Measuring the equalising function

The second form of legal segmentation arises from passiveness, i.e., non-regulation, where contractual freedom allows employers to circumvent employment protection which

Figure 5. The measurement concept of the equalising function



Source of indicators: italic symbols=own coding, bold symbols=CBR-LRI.

Source: own presentation.

leads to inequalities between groups. The equalising function refers to norms that aim to rectify actual differences between groups (*legal inhibition*) and thus have a reactive nature. The measure captures norms that try to compensate for the two phenomena *discrimination* and *flexibilisation* and focuses on two aspects each (see Figure 5). High values refer to a high level of norm-related equalising. While the operationalisation of *flexibility* is almost identical to that of the sub-dimension *different forms of employment* of the CBR-LRI (see Adams, Bishop et al., 2017, pp. 10–12), the dimension *discrimination* consists of newly designed indicators.

The dimension *discrimination* captures norms that aim to rectify inequalities based on person-related characteristics such as gender and race. It focuses on two aspects of discrimination – the *access* to labour and *working conditions* – and two groups that are especially vulnerable at the labour market: women and ethnic minorities. The aspect *access* measures whether the law guarantees for equal opportunities for both groups (E.1, E.3), and whether even positive discrimination in form of affirmative action is regulated (E.2, E.4). While in the case of equal opportunities we ask whether respective norms were introduced, the indicators for affirmative action differentiate between the possibility and the legal prescription of positive discrimination in order to overcome existing discrimination. The aspect *working conditions* captures general terms and conditions of employment as well as wage standards. The indicators measure the existence of norms that guarantee equal opportunity regulations for women (E.6) and ethnic minorities (E.7), equal pay for work of equal value (E.5), and a universal minimum wage (E.8).

The dimension *flexibility* refers to norms that intend to tackle contract-related disparities. Thereby we mean differential treatment rooted in the peculiarities of the contract which are used as hierarchical features having effects beyond functional hierarchies. In this case, workers with working conditions differing from the majority are susceptible to marginalisation beyond the mere contractual level. The dimension focuses on the aspects *restriction* and *equal treatment* of three forms of non-standard employment: fixed-term contracts, part-time work, and agency work. The aspect *restriction* captures whether the law imposes substantive constraints (E.9) and a maximum duration (E.10) on fixed-term contracts, and whether agency work is strictly controlled or even prohibited (E.11). The aspect *equal treatment* assesses whether part-time, fixed-term and agency workers have the right of equal treatment with workers that enjoy a SER (E.12, E.14, E.15), and whether the dismissal protection of part-time workers is proportionate to that of full-time workers (E.13). All indicators stem from the CBR-LRI dimension *different forms of employment*. The dimension *flexibility* differs from the CBR-LRI sub-dimension *different forms of employment* by excluding the indicator on the definition of the employment status (see Adams, Bishop et al., 2017, p. 10) and shifting it to the selectivity dimension of the privileging function.

5.4 Index construction

The indicators can be analysed separately or aggregated at various levels. We intend to calculate three indices that represent the three functions and use it as a dashboard measure to identify types of employment law. Beyond that, it is possible to decompose functions and construct measures for single dimensions or even aspects – either to analyse their influence on the outcome at higher aggregation levels or to use them for further analysis. In our opinion, combining the three functions in a single index does not make sense as they measure phenomena that are meant to be mutually independent and lie on different vectors; consequently, a single digit based on all 35 indicators would be meaningless.

There are various possibilities of weighting and index calculation. The most convenient method is to use the mean of all indicators of one function, thus applying equal weights to each indicator. A slight variation would be to take the mean of the aspects or dimensions of one function, thereby assigning equal weights to each aspect or dimension, and thus equal weights to all indicators of one aspect or dimension. A more challenging task would be to assign weights to each indicator, aspect, and dimension based on theoretical arguments. Beside rather theory-based ways of index calculation (the researcher defines what is relevant), there are of course data-based methods of index construction (correlations define what is relevant) such as factor analysis.

6. Conclusion

Based on the assumption that the SER has both protective and selective aspects, we asked how *legal segmentation* in labour law, i.e., inequalities in employment protection, could be conceptualised and measured. Drawing on leximetrics, a method to quantify norms, we extended existing concepts such as the CBR-LRI and EPLex which focus on levels of protection. Based on criticism uttered in the discussion on the SER since the 1980s, we identified three main functions of individual labour law: the standard-setting (S), privileging (P), and equalising (E) function. As we assume that the functions are mutually independent, we then sketched a three-dimensional space of possibilities and developed a typology of employment law models – the SPE typology. In a next step, we developed measurement concepts for each of the three functions, breaking them down into dimensions, aspects, and indicators. Each indicator is informed by specific legal norms, and the extent that they incorporate each function expressed in numerical terms; here, one set of norms can incorporate several functions simultaneously. In the development of measurement concepts and the still ongoing process of data collection, we heavily relied on indicators and data of the CBR-LRI. To expand that database conceptually, geographically, and historically, we furthermore consulted EPLex and historical laws from various repositories.

The three functions of employment law and the SPE typology offer genuinely new perspectives for comparative employment regulation research. While previous concepts focused solely on the protection level, i.e., the standard-setting function, adding the privileging and equalising function enables us to assess active legal promotion and reactive legal inhibition of segmentation and thus the extent of gradation of employment law in legal terms. Furthermore, their combination in SPE prototypes provides a novel approach that allows us to describe, identify, and compare employment law systems around the world.

We expect that the SPE ideal types lead to a significant order of global clusters which enable us to assess the world-wide expansion of regulatory patterns of employment. We shall be able to identify similarities and dissimilarities of the world-wide distribution ('clusters') of the specific regulatory patterns. Our dataset further allows to compare regulatory patterns of colonisers with those of respective colonised countries. Furthermore, we can analyse international organisations' regulatory impacts on member states' legal order. We assume that – in accordance with different legal origins – we can identify different employment regulatory patterns for the three selected coloniser countries France, UK, and Germany and their impact on employment regulation in the respective colonised countries, even in the later period of decolonisation. This impact, however, coincides with the influence of ILO conventions and recommendations. We thus shall end up with the identification of world-wide clusters of normative regulation and its regional and world-wide expansion, particularly via the

vectors of both colonialism and international organisations.

Beyond the mere comparison of regulatory patterns and their worldwide distribution, our findings will allow for assessments of social policy patterns and their social-theoretical backgrounds, of course limited to statutory law. Each of our (logically deducted) eight types of employment law models represents a particular manner on how societies are dealing with the 'social question' – whether they leave labour market inequalities and shadow economies up to market processes or try to shape them proactively; whether they value equality so high that they endeavour to set and implement universal standards, or so low that they just favour particular groups of workers via privileging them. Each of these 'typical' social policy options implies a specific social governance which is either inclusive (covering all those who are in a social situation of 'need'), exclusive (abstaining from universal coverage and limiting standards to selected groups) or something in between.

Two ideal types form the extremes for an inclusive and an exclusive employment law policy. The *universalist model* (SpE) deserves its name because the high probability of overall inclusion when low privileging coincides with high levels of standard-setting and equalising. Behind this type of regulatory pattern, we envision a state proactively caring for all those who are in need and therefore provides for a high amount of protecting labour legislation. In contrast, when low standard-setting coincides with low privileging and equalising, we assume a *laissez-faire model* (spe) that refrains from legal efforts to include people in need and leaves workers mostly to market forces. This type of regulatory pattern may result from states rejecting the responsibility for vulnerable groups entirely, or states handing the responsibility over to organisations of the social partners. The difference lies beyond statutory labour market regulation and may only be clarified by further analysis that include collective bargaining agreements.

The ideas inspiring these ideal types have a strong impact on global social policy developments. The universalist model uncovers ideas of the constituting documents of the ILO. The criteria of a high esteem of 'inclusive' labour and social policy are the orientations towards "social justice" and "universal values" shared by world-wide labour organisations and the founding goals of the ILO and the United Nations. The preamble to the 1919 ILO Constitution contains the important statement affirmed in the Philadelphia Declaration of 1944 that "lasting peace can be established only if it is based upon social justice" (ILO, 1923, p. 332, 1944, p. 4). Therefore, the demands included an improvement in the working conditions that are still associated with injustice, hardship and privation for many people today (ILO Constitution), and the creation of "conditions [...] whereby everyone may enjoy his economic, social and cultural rights, as well as his civil and political rights" (United Nations, 1966, p. 1).

In contrast, the ideas behind the laissez-faire type of employment regulation corresponds to ideas that the OECD and the World Bank share with neoclassical economists (Adams, Bastani et al., 2017). This social model is driven by economic assumptions about efficiency and an inevitable contradiction between market logics and social regulation, regarding employment regulation as such as an obstacle to economic performance. That this is both economically and empirically wrong has been demonstrated (see Mückenberger & Deakin, 1989; Deakin et al., 2014; Adams et al., 2015).

Our database will thus deliver knowledge about worlds of labour which provide for inclusive employment regulation patterns and those who do not. Further investigation can build on that and ask in how far these patterns contribute to societal outcomes like social welfare, economic, social and cultural productiveness, and social cohesion.

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Appendix

Table A1. Measurement concept of Legal Segmentation – Functions, dimensions, aspects, indicators, and scales

FUNCTION/ Dimension/ *aspect*	Indicator	Scale	Source
STANDARD-SETTING			
Working time	S.1: Annual leave entitlements	Normal length of annual paid leave guaranteed by law or collective agreement; same score for laws and collective agreements which are de facto binding on most of the workforce (as in the case of systems with extension legislation for collective agreements); score normalised from 0 to 1; 1=leave entitlement of 30 days	CBR-LRI, B.9
	S.2: Public holiday entitlements	Normal number of paid public holidays guaranteed by law or collective agreement; same score for laws and collective agreements which are de facto binding on most of the workforce (as in the case of systems with extension legislation for collective agreements); score normalised from 0 to 1; 1=entitlement of 18 days	CBR-LRI, B.10
	S.3: Overtime premia	Normal premium for overtime working set by law or collective agreements which are generally applicable; same score for laws and collective agreements which are de facto binding on most of the workforce (as in the case of systems with extension legislation for collective agreements); 1= premium is double time; 0.5= premium is time and half; 0= there is no premium	CBR-LRI, B.11
	S.4: Weekend working	Normal premium for weekend working set by law or by collective agreements which are generally applicable; same score for laws and for collective agreements which are de facto binding on most of the workforce (as in the case of systems with extension legislation for collective agreements); 1= premium is double time/weekend working is strictly controlled or prohibited; 0.5= premium is time and half; 0= there is no premium	CBR-LRI, B.12
	S.5: Limits to overtime working	Maximum weekly number of overtime hours permitted by law or by collective agreements which are generally applicable; 1= maximum duration to weekly working hours, inclusive of overtime, for normal employment exists; 0.5= a limit exists, but may be averaged out over a reference period of longer than a week; 0= no limit exists	CBR-LRI, B.13
	S.6: Duration of the normal working week	Maximum duration of normal working week exclusive of overtime; same score for laws and for collective agreements which are de facto binding on most of the workforce (as in the case of systems with extension legislation for collective agreements); score normalised from 0 to 1; 1= 35 hours or less; 0= 50 hours or more/no limit	CBR-LRI; B.14
	S.7: Maximum daily working time	Maximum number of permitted working hours in a day, taking account of rules governing rest breaks and maximum daily working time limits; score normalised from 0 to 1; 1= 8 hours or less; 0=18 hours or more	CBR-LRI, B.15
Dismissal	S.8: Legally mandated notice period	Length of notice in weeks that has to be given to a worker with 3 years' employment; score normalised from 0 to 1; 1= 12; weeks 0= 0 weeks	CBR-LRI, C.16
	S.9: Legally mandated redundancy compensation	Amount of redundancy compensation in weeks of pay payable to a worker made redundant after 3 years of employment; score normalised from 0 to 1; 1= 12 weeks; 0= 0 weeks	CBR-LRI, C.17

FUNCTION/ Dimension/ *aspect*	Indicator	Scale	Source
STANDARD-SETTING			
Dismissal	S.10: Law imposes procedural constraints on dismissal	1= dismissal is necessarily unjust if employer fails to follow procedural requirements prior to dismissal; 0.67= failure to follow procedural requirements will normally lead to a finding of unjust dismissal; 0.33= failure to follow procedural requirement is just one factor taken into account in unjust dismissal cases; 0= no procedural requirements for dismissal exist; further gradations between 0 and 1 reflect changes in the strength of law	CBR-LRI, C.19
	S.11: Law imposes substantive constraints on dismissal	1= dismissal is only permissible for serious misconduct or fault of the employee; 0.67= dismissal is lawful according to a wider range of legitimate reasons (misconduct, lack of capability, redundancy, etc.); 0.33= dismissal is permissible if it is 'just' or 'fair' as defined by case law; 0= employment is at will (i.e., no cause dismissal is normally permissible); further gradations between 0 and 1 reflect changes in the strength of law	CBR-LRI, C.20
	S.12: Reinstatement normal remedy for unfair dismissal	1= reinstatement is the normal remedy for unjust dismissal and is regularly enforced; 0.67= reinstatement and compensation are, de jure and de facto, alternative remedies; 0.33= compensation is the normal remedy; 0= no remedy is available as of right; further gradations between 0 and 1 reflect changes in the strength of law	CBR-LRI, C.21
	S.13: Notification of dismissal	1= by law or binding collective agreement the employer has to obtain the permission of a state body or third party prior to an individual or collective dismissal; 0.67= a state body or third party has to be notified prior to the dismissal; 0.33= the employer has to give the worker written reasons for the dismissal; 0= an oral statement of dismissal to the worker suffices; further gradations between 0 and 1 reflect changes in the strength of law	CBR-LRI, C.22
PRIVILEGING			
Seniority	P.1: The legally mandated notice period for employees increases with seniority	1=increases in steps for more than 10 years; 0.75=increases in steps from 5 up to 10 years; 0.5=increases in steps from 2 and up to 5 years; 0.25=increases in steps for up to 2 years; 0=no increase/ notice period does not exist	Own coding
	P.2: Legally mandated severance/redundancy payments for employees increase with seniority	1=increases in steps for each year of service; 0.67=increases in steps for each year of service but are capped; 0.33=increases by seniority only once; 0=equal for all workers concerned/ do not exist	Own coding
	P.3: Seniority is a decisive selection criterion in case of redundancy	1= is the only factor to be taken into account; 0.5=is one factor among several; 0= is not to be taken into account/no selection regulation at all	Own coding
	P.4: Priority in re-employment	1=by law or binding collective agreement employer must follow priority rules relating to the re-employment of former workers; 0=otherwise; gradations between 0 and 1 reflect changes in the strength of law	CBR-LRI, C.24
Selectivity	P.5: General dismissal protection depends on the size of the enterprise	1=the law provides for a minimum threshold for dismissal protection according to the size of the enterprise; 0=applies independently of size of the enterprise/does not exist	Own coding

FUNCTION/ Dimension/ *aspect*	Indicator	Scale	Source
PRIVILEGING			
Selectivity	P.6: The law, as opposed to the contracting parties, determines the legal status of the worker	1= the parties are free to stipulate that the relationship is one of self-employment as opposed to employee status; 0.5=the law allows the issue of status to be determined by the nature of the contract made by the parties; 0=the law mandates employee status if certain criteria are met (such as form of payment, duration of hiring); further gradations between 0 and 1 reflect changes in the strength of law (reversed scale)	CBR-LRI, A.1
	P.7: Minimum qualifying period of service for normal case of unjust dismissal	Period of service required before worker qualifies for general protection against unjust dismissal; normalised score; 1=3 years or more; 0=no qualifying period (reversed scale)	CBR-LRI, C.18
EQUALISING			
Discrimination			
access	E.1: The law provides for equal opportunities for men and women in terms of access to employment	1=the law guarantees non-discrimination; 0=no such guarantee exists	Own coding
	E.2: The law provides for regulation of positive discrimination in order to overcome labour discrimination of women	1=the law prescribes positive discrimination (affirmative action); 0.5=the law allows for positive discrimination; 0=the law does not allow for positive discrimination	Own coding
	E.3: The law provides for equal opportunities concerning ethnicity/race in terms of access to employment	1=the law guarantees non-discrimination; 0=no such guarantee exists	Own coding
	E.4: The law provides for regulation of positive discrimination in order to overcome labour discrimination of groups disadvantaged in terms of ethnic/ racial backgrounds	1=the law prescribes positive discrimination (affirmative action); 0.5=the law allows for positive discrimination; 0=the law does not allow for positive discrimination	Own coding
working conditions	E.5: Equal pay for work of equal value is legally provided for	1=equal pay for work of equal vailue is guaranteed by law; 0=there is no legal provision	Own coding
	E.6: The law provides for equal opportunities for men and women in terms of working conditions	1=the law guarantees non-discrimination in terms of general working conditions; 0.5=equal pay for equal work is legally provided for; 0=no such guarantee exists	Own coding
	E.7: The law provides for equal opportunities in terms of working conditions concerning ethnicity/race	1=the law guarantees non-discrimination in terms of general working conditions; 0.5=equal pay for equal work is provodid for without ethnic/racial discrimiation; 0=no such guarantee exists	Own coding
	E.8: Employees enjoy the right to a universal minimum wage	1=a universal minimum wage is legally foreseen; 0.67=the law foresees differential minimum wages for sectors or professions without a universal wage floor; 0.33=the law provides for the possibility to introduce minimum wages by sector, profession, region or otherwise; 0=there is no minimum wage	Own coding
Flexibilisation			
restriction	E.9: Fixed-term contracts are allowed only for work of limited duration	1=the law imposes a substantive constraint on the conclusion of a fixed-term contract; 0=otherwise; gradations between 0 and 1 reflect changes in the strength of law	CBR-LRI, A.4

FUNCTION/ Dimension/ *aspect*	Indicator	Scale	Source
Flexibilisation			
restriction	E.10: Maximum duration of fixed-term contracts	Measures the maximum cumulative duration of fixed-term contracts permitted by law before employment is deemed to be permanent; score normalised from 0 to 1, with higher values indicating a lower permitted duration; 1=maximum limit is less than 1 year; 0=maximum limit is 10 years or more/no limit	CBR-LRI, A.6
	E.11: Agency work is prohibited or strictly controlled	1=the legal system prohibits the use of agency labour; 0.5=legal system places substantive constraints on the use of agency labour; 0=neither of the above; futher gradations between 0 and 1 reflect changes in the strength of law	CBR-LRI, A.7
equal treatment	E.12: Part-time workers have the right to equal treatment with full-time workers	1=the legal system recognises a right to equal treatment (for example EC Directive 97/81/EC); 0.5=the legal system recognises a more limited right to equal treatment (via, e.g., sex discrimination law or a more general right of workers not be treated arbitrarily); 0=neither of the above; further gradations between 0 and 1 reflect changes in the strength of law	CBR-LRI, A.2
	E.13: The cost of dismissing part-time workers is equal in proportionate terms to the cost of dismissing full-time workers	1=as a matter of law part-time workers enjoy proportionate rights to full-time workers in respect of dismissal protection; 0=otherwise; gradations between 0 and 1 reflect changes in the strength of law	CBR-LRI, A.3
	E.14: Fixed-term workers have the right to equal treatment with permanent workers	1=the legal system recognises a right to equal treatment (for example EC Directive 99/70/EC); 0.5=the legal system recognises a more limited right to equal treatment (via, e.g., more general right of workers not be treated arbitrarily); 0=neither of the above; further gradations between 0 and 1 reflect changes in the strength of law	CBR-LRI, A.5
	E.15: Agency workers have the right to equal treatment with permanent workers of the user undertaking	1=the legal system recognises a right to equal treatment in respect of terms and conditions of employment in general; 0.5=the legal system recognises a more limited right to equal treatment (for example, in respect of antidiscrimination law); 0=neither of the above; further gradations between 0 and 1 reflect changes in the strength of law	CBR-LRI, A.8

Sources: CBR-LRI 2017 (Adams, Bishop et al., 2017); own coding.