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## **FORMAL RULES-IN-USE ON THE EU LABOUR MARKET**

## **FORMALNE REGUŁY W UŻYCIU NA RYNKU PRACY W UNII EUROPEJSKIEJ**

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**Summary:** The aim of the article is the analysis of rules-in-use on an individual as well aggregated level. The taxonomic method, descriptive analysis and critical literature review is used in the article. The European Union countries have been ordered and grouped according to the set of rules in force on the labour market. For a detail analysis, four countries have been selected, one country from each group. The taxonomy method has been used to rank the countries. Descriptive analysis of particular rules-in-use in selected countries is done. The World Bank data, mainly collected within Doing Business project and Mutual Information System on Social Protection, Social Security Programs Throughout the World as the main source of information are used. The article ends with a summary of rules-in-use of selected countries.

**Keywords:** labour market, rules-in-use, policy.

**Streszczenie:** Celem artykułu jest analiza reguł będących w użyciu na poziomie poszczególnych krajów i całej Unii Europejskiej. W artykule wykorzystano metody taksonomiczne, deskryptywną analizę danych oraz krytyczny przegląd literatury. Kraje Unii Europejskiej zostały uporządkowane w rankingu i pogrupowane według zbioru reguł w użyciu na rynku pracy. Do szczegółowej analizy wytypowano cztery kraje, po jednym z każdej wyodrębnionej grupy. Główne źródło informacji stanowiły dane publikowane w ramach projektu Doing Business, Systemu Wzajemnej Informacji o Ochronie Socjalnej i Programów zabezpieczenia społecznego na całym świecie. Artykuł kończą wnioski dotyczące instytucji będących w użyciu w wybranych krajach Unii Europejskiej.

**Słowa kluczowe:** rynek pracy, reguły w użyciu, interwencja.

## **1. Introduction**

The aim of the article is the analysis of rules-in-use on the European Union labour market. In the article the analysis of rules-in-use as the exogenous variables from

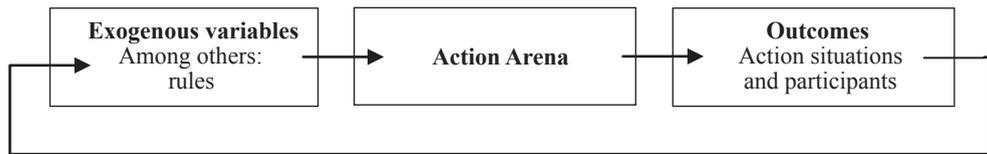
two perspectives is done. Configuration of labour market rules as a whole may be done or the analysis of each labour market institution can be undertaken. The two ways are not faultless. Labour market as a whole is extremely difficult to analyse because an overall picture should be presented using rules perspective. On the other hand, there is no consensus of the role of each rule and the way how they interact with each other [Arpaia, Mourre 2009, p. 16]. In these two cases, the availability of data is a challenge. EU countries have been ordered by rules-in-use on the labour market and organized into four groups according to the strictness of labour policy. Taxonomic methods were used for building a synthetic indicator to assess the level of rules-in-use and to build the ranking. For a detailed analysis of rules on the labour market, four countries have been selected and analysed through data included in the synthetic indicator as well as another available characteristics. Mainly the World Bank data, Mutual Information System on Social Protection, Social Security Programs Throughout the World were used as the characteristic of rules on the labour market. The question why rules-in-use on a particular labour market are in a given configuration is still open [Arpaia, Mourre 2009, p. 4].

In the article, the term 'rules' is used to denote regulations or formal institutions [Ostrom 2005, p. 17; North 1990, p. 3]. According to D.C. North, using the sports analogy, institutions are the rules of a game in a competitive team sport [North 1990, p. 4]. Furthermore, the rules in the game may be distinguished as formal rules as well as informal rules. The formal rules as written constraints include contracts, political and economic rules. As the example, these would be constitutions, statutes, acts and individual contracts. Formal rules refer to the rules laid down and enforced by official authorities, for example judge, legislature, magistrate or director [Lauth 2004, pp. 5, 6; Soysa, Jutting 2006, p. 3]. While the informal rules such as conventions, codes of behaviour, norms, routines, values of behaviour or personal standards are unwritten, not formally codified [North 1990, pp. 4–6; Helmke, Levitsky 2003, p. 4; Ostrom 2005, p. 26]. In contrast to formal institutions, informal institutions exist outside the official channels and they are self-enforced [Soysa, Jutting 2006, p. 2]. In the article only formal rules are analysed.

The term 'rules-in-use' is applied to constraints that affect actions, which means that they are in force [Ostrom 2005, p. 138]. Rules create the surrounding by defining instructions: what is required, prohibited and permitted [Ostrom 2011, p. 17, 2005, p. 17]. Rules-in-use reduce uncertainty by providing a structure to activity. Therefore, rules affect our expectations about behaviour of others and their expectations of our behaviour at the same time [Ostrom 2005, p. 5]. Thus constraints imposed on individuals reduce the costs of interactions (transaction costs). It is worth remembering that, if they are too burdensome, they may make action difficult [The World Bank 2016, p. 1].

## 2. Rules-in-use on the labour market

Labour market may be seen as the action arena which consists of action situations and participants (Figure 1). Action situations are spaces where participants interact and take decisions concerning investments in human capital, accepted wage level, leisure, employment as well as job preferences. Individual actors, as well as corporate actors may belong to participants. The representatives of the supply side on the labour market may be seen as employed (self-employed, employees), unemployed or inactive. On the other hand, the demand side represents companies, which can be analysed as units. Thus, participants on the labour market are presented through the demand and supply perspective.



**Fig. 1.** A framework for institutional analysis on the labour market

Source: on the basis: [Ostrom 2011, p. 10; Williamson 2000, p. 597].

Rules-in-use affect the action situation undertaken on the labour market by participants (Figure 1) [Ostrom 2011, pp. 19–21; 2005, p. 15]. According to the theory, the group of exogenous variables includes, apart from rules, the attributes of the biophysical world and the structure of the community includes [Ostrom 2005, pp. 22–27]. In the literature, there is no consensus about the treatment of the rules as the exogenous, some authors consider their formation as a result of endogenous processes [Arpaia, Mourre 2009, p. 4]. Rules used by participants to order their relationships on the labour market are identified with policy interventions [Holmlund 2014, p. 62]. The formal rules may be applied to the nature of employment contracts and wages as well as to the social security and income guarantee systems [Foti, Lauridsen, Rodgers 2005, p. 24; Eichhorst, Feil, Braun 2008, pp. 8–16; Pilc 2015, p. 99; Ostoj 2012, p. 37].

Exogenous variables affect the structure of an action arena, generating interactions which produce outcomes (Figure 1). E. Ostrom highlighted the following potential outcomes: economic efficiency, equity between individuals, adaptability, resilience, robustness, accountability, conformance to general morality, the need for trade-offs [Ostrom 2005, pp. 66–68]. Outcomes as the results of action undertaken on the labour market may be analysed from an individual as well as a macro perspective. Thereby, decisions and activity on the labour market lead to consequences for an actor (the representative of demand as well as the supply side), for other individuals and for the whole economy. Low transaction costs, flexibility, ability to

achieve goals, profits, productivity or equal chances are potential, individual results [Holmlund 2014, p. 64; Ostoj 2012, p. 59; Aron 2000, p. 105]. Unemployment rate, long-term unemployment rate, participation and employment rate, scale of the shadow economy are general, macro-perspective indicators of the state of the labour market [Renooy et al. 2004, p. 112]. In the long run, an influence on economic growth and development is observed [Blanchard 2005, p. 13; Ostoj 2012, p. 61; Arpaia, Mourre 2009, p. 44; Aron 2000, p. 99].

### 3. European Union labour market as the action arena

The European Union countries were classified in the ranking and into the groups according to the rules-in-use on the labour market. The EU member states were treated as objects in the multi-dimensional space. Dimensions of space were specified by diagnostic variables describing rules-in-use on the labour market in 2016. To the set of diagnostic variables hiring details, working hours, redundancy costs, tax characteristics and social security aspects have been included [Eichhorst, Feil, Braun 2008, pp. 10–16; Pilc 2015, p. 99; Ostoj 2012, p. 37]. In the multiple-criteria analysis, a crucial challenge is the choice of characteristics. At this step, methodological issues and data availability were included [Kolenda 2006, pp. 19, 20]. To the final group of diagnostic variables, data with high level of variation have been included – variability coefficient exceed the threshold value of 10%. Low level of correlation in order to eliminate variables that carry the same information has been used – Pearson correlation coefficient  $< 0.8$ .

In the final group of diagnostic variables which characterise rules-in-use on the labour market were included:  $x_1$  – premium for night work,  $x_2$  – premium for work on weekly rest day,  $x_3$  – premium for overtime,  $x_4$  – notice period for redundancy dismissal,  $x_5$  – severance pay for redundancy dismissal,  $x_6$  – number of tax payments,  $x_7$  – time necessary to prepare file returns and pay taxes,  $x_8$  – total tax and contribution rate,  $x_9$  – minimum wages as a proportion of median gross monthly earnings,  $x_{10}$  – paid annual leave,  $x_{11}$  – minimum length of maternity leave,  $x_{12}$  – minimum contribution period for unemployment protection [The World Bank 2017b, c].

All the final diagnostic variables were classified as stimulants. In order to transform the data expressed in different units of measure to comparable scales typical data standardization procedure were applied [Kolenda 2006, p. 43]. Standardization is expressed as follows:

$$u_{ij} = \frac{x_{ij} - \bar{x}_j}{S_j(x)}, \quad (1)$$

where  $x_{ij}$  is associated with the value of the diagnostic variable,  $u_{ij}$  is the normalized value of  $x_{ij}$  and  $\bar{x}_j = \frac{1}{n} \sum_{i=1}^n x_{ij}$ ,  $S_j(x) = \sqrt{\frac{1}{n} \sum_{i=1}^n (x_{ij} - \bar{x}_j)^2}$   $i = 1, 2, \dots, n$ ;  $j = 1, 2, \dots, m$ .

The best alternative  $x_j^o$  was applied with  $x_j^o = \max x_j$  and negative ideal solution  $x_j^a = \min x_j$ . Synthetic indicator was designed as a distance from the best alternative. The Euclidean distance was calculated with the following formula:

$$c_i = \sqrt{\frac{1}{m} \sum_{i=1}^n (u_{ij} - u_j^o)^2} \tag{2}$$

and

$$d_j = 1 - \frac{c_i}{c_0}, \tag{3}$$

where  $c_0 = \sqrt{\frac{1}{m} \sum_{j=m}^m (u_j^a - u_j^o)^2}$  and  $u_j^o$  is the standardised best alternative, is the standardised negative best alternative.

The country ranking was created on the basis of a synthetic indicator describing configuration of rules-in-use on the aggregated level. The higher position the more regulated labour market can be observed.

**Table 1.** Ranking of EU countries

Country	Rank	Group	Country	Rank	Group
Slovak Republic	1	Group 1	Greece	18	Group 3
France	2		Malta	19	
Hungary	3		Romania	20	
Poland	4		Croatia	21	
Lithuania	5		Latvia	22	
Portugal	6	Group 2	Spain	23	Group 4
Bulgaria	7		Cyprus	24	
Germany	8		United Kingdom	25	
Austria	9		Ireland	26	
Finland	10		Netherlands	27	
Slovenia	11		Denmark	28	
Czech Republic	12				
Estonia	13				
Luxembourg	14				
Belgium	15				
Italy	16				
Sweden	17				

Source: own calculations based on the World Bank data.

In the next step, countries were organised into groups. The first group were the countries with synthetic indicator bigger than average level increased by standard deviation. The second one – countries with synthetic indicator bigger than average level of the measure. The third group – countries with the synthetic indicator bigger

than mean level subtracted by standard deviation. The fourth group – other cases are found (Table 1).

The following countries were classified to the group of labour market under strict and numerous rules: Slovak Republic, France, Hungary and Poland. The second group which include countries with rules regulating labour market more than on average EU level starts with Lithuania and ends with Sweden. The third group with flexible countries includes six national labour markets. In turn, to group four belong five countries with the most flexible rules on the labour market. Flexible rules facilitate elastic responses to the market signals [Borkowska 2003, p. 3].

For the detailed analysis of rules-in-use on the labour market, one country from each group was chosen, i.e. group 1 – Poland, group 2 – Germany, group 3 – Latvia and group 4 – UK.

The possibility of characteristics of the rules concerning wages is the analysis of minimum amount of remuneration that an employer is required to pay. According to the latest data collected from the structure of earnings survey in 2014 (the survey is conducted once every four years) minimum wages as proportion of median gross monthly earnings reached in UK 46%, Germany 48%, Latvia 50% and Poland 53% with the highest level [[http://ec.europa.eu/eurostat/cache/metadata/en/earn\\_ses2014\\_esms.htm](http://ec.europa.eu/eurostat/cache/metadata/en/earn_ses2014_esms.htm)]. In 2016, the values were as follows: Germany 47%, UK 49%, Latvia 51% and Poland 54% [<https://stats.oecd.org/Index.aspx?DataSetCode=MIN2AVE>]. If we consider minimum wage to value added per worker in 2016, the highest ratio was noticed in Poland (0.33) and then in sequence Germany (0.32), UK (0.25) and Latvia (0.24) [The World Bank, 2017a].

Another possible way of taking the nature of wages into consideration is the analysis of premium for night shift work, extra pay for work on weekly rest days and bonuses for overtime. These elements characterise the duties but also influence the level of payments. In 2016 in Germany and UK, no extra premium for work was provided in mentioned cases. By contrast, in Poland the bonus for work on weekly rest day amounted 100% of hourly pay, 50% of hourly pay for overtime and 20% premium for night shift work. However in Latvia there was additional 50% of hourly pay for night work and extra 100% for overtime. All mentioned rules which define additional amount, have not changed until 2018.

Number of tax payments per year, number of hours per year to prepare file returns and pay taxes and contribution rate are the examples of rules determining demand side on the labour market (Table 2). The biggest number of tax payments per 2016 and the highest contribution rate was noticed in Germany. However, the most time-consuming file returns were in Poland and exceeded those in Germany by more than 40 hours per year.

**Table 2.** Tax compliance in selected countries in 2016

Country	Payments (number per year)	Time (hours per year)	Total tax and contribution rate (% of profit)
Germany	9	218.0	48.9
Latvia	7	168.5	35.9
Poland	7	260.0	40.5
UK	8	110.0	30.7

Source: [The World Bank 2017c].

More important tax burden for the supply side on the labour market is personal income tax rate. Presented personal tax rates are calculated as a combination of central and sub-central government income tax and employee social security contribution expressed as a percentage of gross wage earnings. In 2016 in cases of households with no children, the smallest income tax rate was noticed in UK (Table 3). Whereas in case of a single person with two children or one-earner married couple with two children the smallest income tax rate was observed in Poland. UK in case of one-earner married couple with two children had the highest income tax rate.

**Table 3.** Personal income tax rates by family type in selected countries in 2016 (% gross wage earnings)

Country	Single person		One-earner married couple	
	no child	two children	no child	two children
Germany	39.7	27.8	31.6	21.3
Latvia	29.1	19.6	29.1	19.6
Poland	25.0	19.2	23.8	19.2
UK	23.3	23.3	22.7	22.7

Source: [OECD Stat].

Another example of rules-in-use on the labour market applied to the nature of contract and wages is the entitlement to paid annual leave guaranteed to workers. In 2016, an employee in UK was entitled to 28 working days of pay annual leave and this privilege was did not change according to his/her length of work. This is the longest time in selected countries. Constant paid annual leave also sustained in Latvia (20 working days) and Germany (24 working days). Poland is the example of country with progressive paid annual leave. In Poland for the workers with more than 10 years of tenure the paid annual leave amounted to 26 working days. Workers with shorter work experience are entitled to 20 working days of paid annual leave [The World Bank 2017b].

In 2016 in the length of leave from work for mothers in the period immediately preceding and following child birth, a huge diversity was noticed. Workers in UK were entitled to 14 calendar days of maternity leave without the right to 100% of wage [European Commission 2018b]. In Poland, according to the law in force the

length of a period of paid absence from work amounted to 140 calendar days and maternity leave would cover either 80 or 100% of earnings [Jurviste, Prpic, Subbati 2016, pp. 1, 2]. In Latvia maternity leave amounted to 112 working days but with the privilege to 80% of a wage [European Commission 2018a ]. Within selected countries only in Germany complete payments without any special rules were in force, but the time was shorter – workers were entitled to take 98 working days off [Jurviste, Prpic, Subbati 2016, pp. 1, 2; The World Bank 2017b]. Additionally, similarly to maternity leave, fathers had the right to leave from work in Latvia (1.4 weeks), UK and Poland (2 weeks) [Jurviste, Prpic, Subbati 2016, p. 2].

Examples of rules-in-use determining a discharge of workers are notice period for redundancy dismissal and severance pay for redundancy dismissal amounted in weeks of a salary. In Germany, Poland and UK the progressive trend of notice period for redundancy dismissal was observed. In 2016 the longest time sustained in Germany, where the worker with experience more than 10 years had 17.3 salary weeks. In Latvia the worker had right to 4.3 weeks of a salary for redundancy dismissal and this period was not changing with work experience [The World Bank 2017b].

In all selected countries, the amount of severance pay for redundancy dismissal was dependent on workers tenure (Table 4). In 2016, the workers from Germany were entitled to the highest severance pay for redundancy dismissal taking into consideration average for workers with 1, 5 and 10 years of tenure which amounted to 11.6 weeks of a salary. Workers in UK with 1 year of tenure were not entitled to compensation paid on grounds of redundancy dismissal. Furthermore, worker with 10 years of tenure in UK had right to smaller severance pay than worker in Latvia and Poland with 1 year of holding the position.

**Table 4.** Severance pay for redundancy dismissal in selected countries in 2016 (in salary weeks)

Country	Worker with 1 year of tenure	Worker with 5 years of tenure	Worker with 10 years of tenure	Average
Germany	2.2	10.8	11.6	11.6
Latvia	4.3	8.7	8.7	8.7
Poland	4.3	8.7	8.7	8.7
UK	0.0	3.5	4.0	4.0

Source: [The World Bank 2017b].

People without job are eligible for an unemployment protection under some restrictions. In 2016 the minimum 12 months of the contribution period were required for unemployment protection in Germany and Poland. The minimum duration of contribution period in Latvia was shorter and equivalent to 9 months. In 2016 UK stood as the country where contribution period for unemployment protection was not required [The World Bank 2017a; ISSA 2016]. Unemployment benefits are designed to provide protection against the risks and needs associated with unemployment. Different rules-in-use are in force. In Germany 67% of the net earnings was

paid for 6 to 24 months, according to the length of the covered work period and unemployed person's age [ISSA 2016, pp. 125, 126]. In turn, in Latvia the unemployed are entitled to the level of unemployment benefit dependent on years of coverage. 50% of the insured average earning in the last 12 months is paid with 1 to 9 years of coverage, 55% with 10 to 19 years, 60% with 20 to 29 years, and 65% with 30 years or more [<https://www.ssa.gov/policy/docs/progdesc/ssptw/>]. In Poland, there was a flat-rate base for those with 5 to 20 years of employment, in case of less than 5 years 80% of the base amount is paid and 120% of the base amount with more than 20 years of coverage. The duration of payments depends on the unemployment rate in the region [ISSA 2016, p. 249]. In UK the amount of job seeker's allowance only depends on the claimant's age – decisive age is 25 (younger than age 25 and 25 or older) [ISSA 2016, pp. 338, 339].

#### 4. Conclusions

The understanding of institutional framework on the labour market is identical to understanding: “what institutions are, how and why they are crafted and sustained, and what consequences they generate in diverse settings” [Ostrom 2005, p. 1]. The understanding of institutional framework is useful for individual actor as well as for organisations creating the policy. The complexity of variables influences the action arena on the labour market (Figure 1) hinder the complete analysis of institutional framework. The analysis of institutional factors on the labour market may be undertaken on a national level – in this case the rules are analysed on the aggregate level. The aggregate indicator of rules enables to classify countries into groups or distinguish between similar and different countries and then perform a more detailed analysis. In the literature, some authors highlight that particular rules should not be seen or used in isolation due to suppression or reinforcement of a phenomenon [ILO 2017, p. 4]. At the same time, it is worth remembering that group of rules determine outcomes on the labour market and the actor takes steps in action arena under the influence of exogenous variables. To simplify the analysis, the assumption that individuals in an action situation will only take steps that are lawful is done. Otherwise, the analysis of organisations that keep watch and ward the actions and their enforcement efficiency is necessary.

The descriptive analysis of secondary statistical data allows for characterizing or comparing institutional variables between countries. The analysis of individual rules brings opportunity to characterize sophisticated surrounding. The selected countries (that is: Germany, Latvia, Poland, and United Kingdom) significantly differ from each other within rules-in-use because of the criteria of selection to the analysis. Poland as the representative of the first group stood out as the country with the highest minimum wage, the most time-consuming file returns, progressive paid annual leave and long maternity leave. In turn, Germany stood out as the country where the longest period and highest severance pay for redundancy dismissal were

in force. While Latvia excelled in the lowest ratio of minimum wage to value added per worker. UK stands out as a country with no extra premium for work in night, weekly rest days and bonuses for overtime either. Furthermore UK is a leader as the country with lowest level of payments only in case of people with no children, having children did not put family into a favourable position (cf. Tables 2, 3). Interesting outstanding element for the representative of the most flexible group is that UK leads in the category of the longest paid annual leave.

Outcome of actions undertaken on the labour market may be analysed by economic development. In 2016 four selected countries presented different economic development. Germany and UK noticed 1.9% real GDP growth rate, on the other hand Latvia and Poland noticed bigger economic development, respectively 2.2% and 2.9%. The situation on the labour market is the result of steps undertaken in action area. In 2016 Germany was the second country within the group of 28 European countries considering the lowest unemployment rate (4.1%) [Eurostat database, *lfsa\_urgan*]. In the group of the first ten were also UK (4.8%) and Poland (6.2%). In Latvia, unemployment rate amounted to 9.6% [Eurostat database, *lfsa\_urgan*]. However within the long-term unemployment rate, the lowest level within all European Union countries in 2016 was noticed in UK (1.3%), while in Germany – 1.7%, Poland – 2.2% and Latvia – 4.0% [Eurostat database, *une\_ltu\_a*]. UK was distinguished also by the share of the unemployed persons for 12 months or more in the total number of unemployed. In UK was noticed 27.1% long term unemployment share as percentage of unemployment, while in Poland 35.0%, Germany 40.8%, Latvia 41.4% [Eurostat database, *une\_ltu\_a*]. Another possibility gives information about employed people as a percentage of total the population. In 2016, Poland stood as the country with the lowest employment rate (57.6%) in the group of four selected countries. In turn, in Latvia it was 61.6%, UK – 65.8% and Germany – 66.2% (second best rate in 28 countries) [Eurostat database, *lfsa\_ergan*]. The result of all rules-in-use on the labour market may be seen also in shadow economy. Shadow economy is the one where actors try to avoid rules to smooth the activity. According to F. Schneider in 2016 in UK shadow economy was noticed on the level of 9.0% GDP and in Germany 10.8% GDP. In Latvia and Poland the scale amounted to approximately 23% GDP [Schneider 2016, p. 8].

The outcomes mentioned in the article also influence actions by changing the strategies of individuals over time. They acquire knowledge about the results of their past action. For example, different situation on the UK and Latvia labour market is observed. UK – with low following factors: unemployment rate, share of long term unemployment and shadow economy, and Latvia – with high following elements: unemployment rate, share of long term unemployment and shadow economy. Therefore different outcomes influence different circumstances to set rules-in-use and exercise them.

It is worth highlighting that rules-in-use are only one element which determines observed outcomes. According to E. Ostrom, among exogenous variables besides rules there are the biophysical world and the structure of the community.

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