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Is flexible work precarious? A study based on the 4th European survey of working conditions 2005[1]

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WSI-Diskussionspapier Nr. 153

June 2007

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WSI-Diskussionspapiere (Print) ISSN 1861-0625
WSI-Diskussionspapiere (Internet) ISSN 1861-0633
http: www.boeckler.de/pdf/p_wsi_diskp_153_e.pdf

[1]Paper at the Conference of the European Foundation for the Improvement of Living and Working Conditions together with the Hans Böckler Foundation *Flexicurity: Eine Perspektive für flexible Arbeitsmärkte und soziale Sicherheit?*, Berlin, July 5–6, 2007. The author thanks Hartmut Seifert for numerous discussions, useful suggestions, and comments to the draft of the paper.

Abstract

The analysis of interaction of flexibility and precariousness of work shows that the more flexible employment, the more it is precarious. For this purpose, two families of indices, of flexible work and of precarious work, are defined basing on the *Fourth European Survey of Working Conditions 2005* by the European Foundation for the Improvement of Living and Working Conditions (2007a). Two methodologies of constructing composite indicators are applied, of the Hans Böckler Foundation, and of the OECD. Both methodologies give very similar results. After the indices have been constructed, the dependence between flexibility and precariousness of work is established by regression analysis with statistical certainty.

Besides, it is revealed that the institutional regulation of employment does not necessarily imply the adequate factual effect. For instance, Turkey and Greece with a very strict employment protection legislation have a high labour market flexibility due to a large fraction of employees who work with no contract.

Among other things, it is shown that the employment flexibility has the strongest negative effect on the employability. It implies serious arguments against the recent reconsideration of the function of social security attempted by the European Commission within the flexicurity discourse. The suggested shift from income security towards a high employability cannot be consistently implemented. Our study provides empirical evidence that a high employability can be hardly attained under flexible employment.

Keywords: Flexicurity, labour flexibility, precarious work, composite indicators, European Commission, European Employment Strategy.

JEL Classification:
C43 — Index Numbers and Aggregation, C51 — Model Construction and Estimation, J21 — Labor Force and Employment, Size, and Structure, J88 — Public Policy.

Contents

1 Introduction

1.1 Flexicurity

A spectre is haunting Europe — the spectre of flexicurity[2]. Indeed, as Keune and Jepsen (2007: 5) write,

> Within a very short period of time, flexicurity has become one of the more fashionable elements of the European political discourse addressing social and economic policies in general and employment policies in particular. Whereas, until the end of 2004, the concept of flexicurity was discussed largely in a small academic circle, today it is at the top of the European agenda.

What is flexicurity, and why did the notion get such a popularity?

Fexicurity is generally explained as a policy which should make compatible flexibilisation (= deregulation) of labour markets aimed at increasing the competitiveness of European economy with the European tradition of welfare state based on strong employment security and social security. It can be metaphorically characterized by analogy with the motto of Prague Spring in 1968 'socialism with a human face':

Flexicurity is flexibilization of labour markets with 'a human face', that is, compensated by some social security advantages, in particular, for the groups affected.

The main distinction captured by this metaphorical definition is that flexicurity differs from unconditional deregulation by introducing compensatory measures in social security and employment activation. Respectively, flexicurity is considered as a flexibility–security trade-off, that is, as a policy of social compromise (Wilthagen and Tros 2004). Specific understandings (definitions) of flexicurity may depend on the country, flexibilization steps suggested, the tempo of deregulation, the nature of the social advantages proposed, and estimates of their compensatory equivalence. A consensus in balancing these factors is not a purely academic question but rather, like collective agreements, an issue for negotiation between social partners: governments, employers, and trade unions.

Historically, the word *flexicurity* was introduced by a member of the Dutch Scientific Council of Government Policy, Professor Hans Adriaansens, and the Dutch Minister of Social Affairs, Ad Melkert (Labour Party); see Wilthagen and Tros (2004: 173). In the autumn of 1995, Adriaansens launched this catchphrase in speeches and interviews, having defined it as a shift from job security towards employment security. He suggested compensating the decreasing job security (fewer permanent jobs and easier dismissals) by improving employment opportunities and social security. For instance, a relaxation of the employment protection legislation was supposed to be counterbalanced by providing better conditions for temporary and part-time workers, supporting life-long professional training to facilitate job changes, more favourable regulation of working time and additional social benefits.

In December 1995, Ad Melkert presented a memorandum *Flexibility and Security*, proposing the relaxation of employment protection legislation for permanent employees,

[2]The paraphrase of the beginning of *The Manifesto of the Communist Party* by Marx and Engels (1848): A spectre is haunting Europe — the spectre of communism (Ein Gespenst geht um in Europa — das Gespenst des Kommunismus).

provided that temporary workers were awarded regular employment status, without however adopting the concept of flexicurity as such. By the end of 1997, the Dutch parliament had accepted the flexibility/security proposals and shaped them into laws which came into force in 1999.

The OECD (2004b: 97–98) ascribes the origins of flexicurity to Denmark with its weak employment protection, highly developed social security, and high job availability; see Madsen (2004), Breedgaard et al. (2005). (It is often concealed, however, that the role of employment protection legislation in Denmark is replaced by the intermediation of trade unions which are strongest in Europe with the density 80% in 2004 (European Foundation 2007b: 6)).

Regardless of the origins of the expression *flexicurity*, both countries are recognised as 'good-practice examples' (Braun 2001, van Oorschot 2001, Kok et al. 2004) and inspired the international flexicurity debate. Although some authors still consider flexicurity a specifically Dutch/Danish phenomenon (Gorter 2000), the idea spread throughout Europe within a few years (WSI 2000); for a selection of recent international contributions see Jepsen and Klammer (2004).

The EU made reference to this concept first at the Lisbon summit of 2000 (Vielle and Walthery 2003: 2; Keller and Seifert 2004: 227, Kok et al. 2004). After the meeting in Villach in January 2006 (European Commission 2006a), flexicurity became a top theme in the European Commission. At present, the concept is formally stated both in Guideline No. 21 of the *Integrated Guidelines for Growth and Jobs for 2005–2008*, and in the refocused Lisbon Strategy; see *Trio Presidency Discussion Paper on Flexicurity* (2007).

In November 2006 the European Commission (2006c) issued the *Green Paper: Modernising Labour Law to Meet the Challenges of the 21st Century*. It is aimed at initiating an open debate on legislating the flexicurity labour market policy. The results of the debate should be reflected in a Commission Communication on flexicurity planned for June 2007, 'which will set out to develop the arguments in favour of the "flexicurity" approach and to outline a set of common principles by the end of 2007 to help Member States steer the reform efforts' (European Commission 2006c: 4–5).

1.2 Ambiguity in understanding flexicurity

It may look surprising that, though flexicurity is getting to be adopted as a European policy, there exists neither its 'official' definition, nor even an unambiguous idea of it, to say nothing of steering and monitoring instruments (Seifert 2007). It is well seen in Chapter 2 on flexicurity in *Employment in Europe 2006* by the European Commision (2006b) which cites the academic definition by Wilthagen and Tros (2004) and benchmarks countries with the OECD *partial* quite controversial indicators of social security.

Neither flexicurity is defined in the *Green Paper* cited, where the word is first introduced in quotation marks as a metaphor (p. 4) and afterwards is used without. Avoiding to formulate a definition, the *Green Paper* refers nevertheless to three examples: the Dutch Flexibility and Security Act 1999 already mentioned, the Austrian Severance Act (Abfertigungsrecht) 2002, which launched a kind of firing insurance to facilitate dismissals and labour market transitions, and the June 2006 Spanish decree easing the conversion of temporary labour contracts into open-ended ones with reduced dismissal costs (European Commission 2006c: 10). These reforms enhance labour market flexibility and at the same time provide some advantages for certain types of employees; see EIRO (2007) for

details. These examples should additionally convince other Member States to pursue the flexicurity policy and to implement corresponding legislation changes.

The same lack of definition was recognized at the *Expert meeting on flexicurity strategies and the implications of their adoption at the European level on the occasion of German-Portugal-Slovenian presidency in the EU* organized by the Portugal government in Lisbon on September 25, 2006. The major questions to be discussed there were just on available definitions and monitoring instruments; for the full list of questions see Tangian (2006). That is, the policy to be adopted at the European level is still ill-defined and supported by no empirical feedback.

Several previous studies of the Hans Böckler Foundation attempted to bridge this gap by operationally defining flexicurity and applying this definition to empirically analyse its development in Europe. For this purpose, flexicurity indices for European countries were derived from several types of data available from OECD, European Commission, and Eurostat. The results were not encouraging. Contrary to theoretical considerations and political promises, the current deregulation of European labour markets is not adequately compensated by improvements in social security. Flexibilisation has resulted in a disproportional increase in the number of atypically employed (= other than permanent full-time, such as part-time, fixed-term) and self-employed (Eurostat 2005, Schmid and Gazier 2002, Seifert and Tangian 2006). The quantitative analysis of the advantages/disadvantages of flexicurity with respect to the size of the groups affected reveals rather negative trends. The account of advantages and disadvantages shows that the gains are smaller than the losses and the winners are fewer than the losers (Tangian 2005–2007).

1.3 Reconsidering the role of social security

The empirical studies of the Hans-Böckler Foundation on flexicurity were based on the traditional definition of social security. However, as emphasized in *Employment in Europe 2006* by the European Commission (2006b: 78):

> The main trust of the EU recommendation on flexicurity is to encourage a shift ... towards employment security. ... In particular, investing in human capital is vital both to improve the long-term employment prospects and the employment security of the individual, and also to enhance the competitiveness and adaptability of the labour force...

Keune and Jepsen (2007: 14) emphasize that, in the context of flexicurity discourse, the European Commission reconsiders the very idea of social security. Namely, instead of income security, the European Commission puts forward the employability as its keystone:

> Employability is seen as the key for individuals to be able to make transitions from job to job, and from unemployment or inactivity to employment. Individuals derive security from employability, since it improves their employment chances. As Barroso put it: It is a fact of life that people may experience spells of unemployment but, by improving their skills, they will be in a position to find a new job as quickly as possible (2006 European Year of Workers' Mobility Launch Conference, Brussels, 20 February 2006).
>
> ... Summarising, the Commissions flexicurity concept calls for (i) higher flexibility through the increased use of flexible contracts and the limiting of job

protection; and (ii) increased security through lifelong learning which is supposed to improve employability.

According to the aim of flexicurity, the flexibilisation should improve firms' performance, which in turn should foster production and animate labour markets, creating 'more and better jobs', as declared at the EU Lisbon summit 2000. The 'better jobs' are not specified but likely follow the ILO (1999) concept of *decent work*, 'the converging focus of all [ILO's] four strategic objectives: the promotion of rights at work; employment; social protection; and social dialogue', where *employability* plays one of central roles.

To make the idea of decent work clearer, the ILO report cited juxtaposes decent and *precarious work*, another new notion which got a particular attention of policy makers and scholars. As the opposite to decent work, precarious work is characterized by lower income, lower employment stability, *lower employability*, and lower integration in social security schemata; for details see Keller and Seifert (2006).

Due to the lack of unambiguous definition, politicians and scholars use the word flexicurity, but charge it with their own meaning. Thus, within the flexicurity debate, the European Commission refers to social security, normally associated with income security, but means something different. To reconcile the broad public with the deregulation of labour markets without providing an equivalent income compensation, the common understanding of social security is redefined and fitted to the current policy needs. In the new context, the role of social security is essentially linked to employability which is closely related to decent–precarious employment.

It follows that flexicurity, instead of compensating the deregulation by advantages in income security (as it sounds) should compensate it by a high employability (reformulated goal of social security), or, more generally, offering decent employment rather than precarious work. Indeed, to get through these puzzling linguistic tricks, one has to be really deeply involved in the debate!

1.4 About the given work

Therefore, to analyse the consistency of flexicurity policy in its *new* understanding, one has to investigate the impact of flexibility on the decentness—precariousness of work. According to the flexicurity concept, flexible work should in no case be precarious and imply a lower employability, on the contrary, employability should increase to compensate the negative effects of flexibilisation.

To perform the analysis, two groups of indices, of flexibility and of precariousness of work, including employability, are defined. The statistical data are from the *Fourth European Working Conditions Survey 2005* (European Foundation 2007a) which covers 31 European countries. The necessity of summary indices for certain groups of questions of the European surveys of working conditions has been emphasized as early as in the report by the European Foundation (1997) where a heuristic approach to their estimation has been outlined, however, with no mathematical model, or specific examples.

In constructing the indices of flexibility and precariousness of work, we apply two methodologies. The first one has been developed in the Hans Böckler Foundation and implemented in several applications. Among other things, it has been used to construct composite indicators of working conditions, in particular of flexibility of working time, basing on the previous *Third European Survey of Working Conditions* of the European

Foundation; see Tangian (2005, 2007). The papers cited also describe the relation of this methodology to other existing ones.

For comparisons, we construct the same indices with the methodology of the Joint Research Center of the European Commission and OECD; see European Commission (2002), OECD (2002, 2003), OECD–JRC (2005), Munda and Nardo (2003), Pastille (2002), Saisana, Saltelli and Tarantola (2005), Saltelli (2003), and Sendzimir (2004). Its main distinction is a special scaling procedure which will be described below.

The empirical analysis with both methodologies reveals very similar trends. It definitively disproves the belief that flexibilisation of work can be compensated by high employability. It turns out that flexibilization and employability are even little compatible with each other. There is a statistically significant correlation between flexibility and precariousness of work with the most strong negative impact just on employability.

It implies serious arguments against the reconsideration of the function of social security attempted by the European Commission within the flexicurity discourse. The suggested shift from income security towards a high employability cannot be consistently implemented. Our study provides empirical evidence that a high employability can be hardly attained under flexible employment.

We conclude that even the reconsideration of traditional understanding of European social security fails to make flexibilisation acceptable from the standpoint of social objectives. Instead of experimenting with people, the Commission should rather carry out a profound comprehensive analysis of the consequences of the reforms recommended.

2 Operationalization of flexibility and precariousness of work

2.1 The 4th European Working Conditions Survey

Our goal is to define several composite indices for every employee, characterizing the degree of flexibility and precariousness of his/her work. Then we shall analyze flexibility and precariousness of work as well as their interdependence by analyzing these indices.

As already mentioned, the statistical data are taken from the *Fourth European Working Conditions Survey* of the European Foundation (2007a) which is based on a questionnaire with over 200 questions related to various aspects of working conditions (Ibid.: 109–134). A number of questions are devoted to the degree of flexibility and to the degree of precariousness of work.

In the *Survey*, 29860 persons from 31 European countries (EU-25 and Bulgaria, Croatia, Romania, Turkey, Norway, and Switzerland) were interviewed by national institutes (Ibid.: 107–108) in the period from 19th September to 30th November 2005 (Ibid.: 93). Each country is represented by ca. 1000 interviews, except for Cyprus, Estonia, Malta, Luxembourg, and Slovenia with about 600 interviews each. The interviewed persons were selected by the method of *random walk* (Ibid.: 94).

Nevertheless, the *Survey* has a certain bias in the data collected. It is explained by the difficulty in accessing some persons and by the inapplicability of the Eurostat definition of employment 'to real-life situations, especially in less standard-industrial types of employment such as agricultural work, family business, etc.' (Ibid.: 95). In particular, the bias manifests itself in income of respondents which national means deviate significantly from official statistical figures. The *Survey* uses harmonized units — income of deciles (10%-population groups ordered by income, Ibid.: 99), so that every national average should be close to 5.5. However, the Belgian national average of respondents is 7.63; see Sheet O of Table 3 at the end of the paper. For as many as 798 respondents, such a high figure is very unlikely to occur by chance alone. It rather results from underrepresenting low-income groups.

For our analysis, only employees are retained. Trainees, self-employed, and unemployed are excluded. It is done according to the interview questions `q3a` and `q3b` on the employment status. The number of persons considered is thereby reduced to 23788.

2.2 Data structure

The data structure for the model is represented in Table 1. The answers of individuals constitute the rows of the table numbered from 1 to 23788. The columns contain coded answers of individuals to the survey questions relevant to our study. The selected questions are grouped into three sections.

Classifiers. This section consists of the questions which are not used in constructing the indices but are necessary to classify individuals by country, by industrial branch, by gender, etc., for comparative analysis of countries and social groups.

- Country (variable `countcod` of the data set): BE—Belgium, CZ—Czech Republic, DK—Denmark, DE—Germany, etc.

Table 1: Data structure for constructing composite indicators of *Flexibility and Precariousness of work*; question marks ? show the aggregation for the composite indicators

Individual No.	Classifiers	Flexibility		...	Precariousness		...	Partial indices		Aggregate indices	
		1. External numerical flexibility	2. Internal numerical flexibility	...	1. Income	2. Employment stability	...				
	countcod Country	q3b Type of contract	q15a Part-time work	...	ef5 Net monthly income	q2d Tenure in the organisation	...	1. External numerical flexibility	...	Flexibility	Precariousness
1	BE	2	2	...	3	2	...→	?	...→	?	?
2	BE	1	2	...	1	3	...→	?	...→	?	?
...											
23788	CH	2	1	...	4	1	...→	?	...→	?	?

- Occupation by a simplified ISCO classification (variable `isco` of the data set): L—Legislators and senior officials and managers, P—Professionals, T—Technicians and associated professionals, C—Clerks, etc.
- Branch by a simplified NACE classification (variable `nace11` of the data set): A+B—Agriculture, hunting, forestry, and fishing, C+D—Mining and manufacturing, E—Electricity, gas and water supply, F—Construction, etc.
- Size of local unit (question `q6`): One employee, 2–4 employees, 5–9 employees, 10–49 employees, etc.
- Company status (question `q5`): Private sector, Public sector, Joint private-public organisation or company, Non-profit organisation, etc.
- Sex of the respondent (question `hh2a`)

Flexibility. This section includes the questions on flexibility of work grouped according to the OECD (1989: 13–20) classification of flexibility types (for a more refined classification see Keller and Seifert 2006: 237):

1. *External numerical flexibility*, that is, is the ease of 'hiring and firing' which manifests itself in the mobility of workers between employers (external job turnover). This type of flexibility is reflected by the survey variables linked to the following questions:
   - Type of contract (`q3b`): indefinite contract, fixed term contract, temporary agency work contract, or work with no contract
   - Duration of contract, in months (`q3c`)
2. *Internal numerical flexibility*, that is, variability of standard number and of standard distribution of working hours. The relevant survey questions are as follows:
   - Number of working hours per week (derivative from `q15a` and `q15b`): as one will or not as one will

- Overwork (more than 10 hours a day), in number of times a month (`q14e`)
- Number of working hours every day (`q16aa`): variable or constant
- Number of working days every week (`q16ab`): variable or constant
- Starting and finishing hours (`q16ac`): variable or constant
- Working time arrangements (`q17a`): set by the company, choice from several option, reasonable adaptability to individual wishes, or full adaptability
- Working time planning (`q17b`): on the same day, the day before, several days in advance, several weeks in advance, no changes of schedule

3. *Functional flexibility*, that is, the changeability of tasks, of teams, and of the content of work. It is reflected in the mobility of workers within enterprizes (internal job turnover). This type of flexibility is reflected by the following survey questions:
   - Frequency of interrupting a task and switching to unforeseen tasks (`q22a`): very often, fairly often, occasionally, or never
   - Solving unforeseen problems by oneself (`q23c`): yes or no
   - Learning new things (`q23f`): yes or no
   - Rotation of tasks between colleagues (`q26a`): yes or no
   - Necessity of different skills in rotating tasks (`q26a1`): yes or no
   - Decision on rotation of tasks (`26a2a`): by boss, by boss and team, or by team
   - Necessity of further training (`q27.1`): yes or no
4. *Wage flexibility*, that is, dependence of salaries and wages on labour market or competitive conditions. This type of flexibility is reflected by the following survey questions:
   - Dependence of work on performance targets (`q21c`): yes or no
   - Basic salary (`ef6a`): yes or no
   - Piece rate or productivity payment (`ef6b`): yes or no
   - Other extra payments (`ef6f`): yes or no
   - Payments based on the overall performance of the firm (`ef6g`): yes or no
   - Payments based on the overall performance of the team/group (`ef6h`): yes or no
   - Income from shares of the company (`ef6i`): yes or no
5. *Externalization flexibility*, that is, such forms as distance working, teleworking, virtual organisations and self-entrepreneurial activities. This type of flexibility is revealed by the following questions of the survey:
   - Work with no working contract (`q3b`, fifth option): yes or no
   - Teleworking from home with a PC (`q11g`): always, almost always, 3/4 of the time, half of the time, 1/4 of the time, almost never, or never
   - Working at home excluding telework (`q11h`): always, almost always, 3/4 of the time, half of the time, 1/4 of the time, almost never, or never

- Working in places other than home or company, e.g. client's premises, on the road (`q11i`): always, almost always, 3/4 of the time, half of the time, 1/4 of the time, almost never, or never
- Engagement in job(s) other than the main paid job (`q9a`): no, occasional, seasonal, regular
- Number of hours a week in job(s) other than the main paid job, in hours a week (`q9b`)

Precariousness. According to the typology of precariousness of work given by Keller and Seifert (2006: 239), the relevant survey questions are classified into three groups. The fourth dimension of precariousness, integration in social security, cannot be characterized by the survey questions and is not considered.

1. *Income* which for precarious work is *ceteris paribus* lower than in decent work. To measure the income factor, the following questions are considered.
   - Harmonized net monthly income, in 10 harmonized levels (`ef5`). The survey uses ten income deciles, that is, 10%-population groups for the given country; for details see European Foundation (2007: 96–100). Delimiters (= income figures which separate decile groups) used by European Commission (2005: 179ff) as income indices are inappropriate for our purposes, because they do not allow finding the average income in each group.
   - Harmonized net hourly earnings (derivative from `ef5` and `q8a`), as the harmonized monthly income divided by the number of hours worked a week (`q8a`) and further divided by 4.33 weeks a month
   - Non-harmonized net monthly income, in EUR (`ef5` recalculated). For each country, the 10 income deciles are given by 9 income delimiters in the national currency (Ibid.: 100). For low-earners (1st group) the income is taken as 2/3 of the 1st delimiter. For top-earners (10th group) it is the last (9th) delimiter enlarged by the distance to the next to last delimiter (= 2×9th delimiter−8th delimiter). For all other groups their income is approximated by the mean of its delimiters. Finally, all the values are expressed in EUR rated on 1st November 2005 (recall that the *Survey* has been performed from September 19 to November 30, 2005).
   - Non-harmonized net hourly earnings, in EUR (derivative from `ef5` recalculated and `q8a`), as the non-harmonized monthly income divided by the number of hours worked a week (`q8a`) and further divided by 4.33 weeks a month
   - Payment comparing to payment standards (`q37b`): fair, rather fair, moderate, rather not fair, not fair
2. *Employment stability*, that is, the certainty of remaining at work. Among other things, we refer to the past practice to estimate future prospects:
   - Stability at the current work, in tenure years in the company reduced to the length of the working life (derivative from `hh2b, q2b`, and `q2d`):

$$\text{Stability} = \frac{\text{Tenure in the company, in years}}{\text{Age} - \max\{14, \text{Age of the end of the full-time education}\}}$$

- Stability at the current work, in tenure years in the company reduced to the duration of employment after the end of full-time education (derivative from `q2c`, and `q2d`):

$$\text{Stability} = \frac{\text{Tenure in the company, in years}}{\max\{1, \text{Duration of employment, in years}\}}$$

- Risk of unemployment in 6 months (`q37a`): very high, rather high, moderate, rather low, very low
- Uncomfortable feeling at work (`q37d`): very high, rather high, moderate, rather low, very low

3. *Employability*
   - Ability to do the work after 60 (`q35`): yes, no will, no
   - Career perspectives (`q37c`): good, rather good, modest, rather bad, bad
   - Learning/training possibilities (`q37e`): good, rather good, modest, rather bad, bad
   - Influence of work on health and safety (`q32`): bad influence, no influence

The fourth section of Table 1, **Partial indices**, is reserved for five first-level aggregate flexibility indices (*External numerical flexibility, Internal numerical flexibility*, etc.) and three first-level aggregate precariousness indices (*Income, Employment stability,* and *Employability*). These indices are obtained for every individual by the procedure described in the next section.

The fifth section of Table 1, **Aggregate indices**, is reserved for second-level aggregate flexibility and precariousness individual indices. Their construction is also described below.

3 Individual indices of flexibility and precariousness of work

Recall that a *composite indicator* is a weighted sum of several low-level indicators which weights reflect their relative importance (= substitution rates). The main task is bringing different answer formats (yes/no, multiple cases, successive grades, numbers) to a unifying scale which would allow a meaningful summation of the answers.

Describe the construction of the indices step-by-step.

3.1 Re-coding

Individual answers to every question (column $x = (x_1, \ldots, x_n)'$ of Table 1) are re-coded to reflect the degree of flexibility or precariousness. For example, consider the following survey question and the codes of allowed answers (European Foundation 2007a: 127)

`q35` Do you think you will be able to do the same job you are doing now when you are 60 years old?

1. Yes, I think so
2. No, I don't think so
3. I wouldn't want to

This question characterizes the employability. Since we are interested in the degree of precariousness, the definitive 'No' corresponds to the highest precariousness but coded by 2. To reflect the increasing precariousness, the codes are interchanged:

1. Yes, I think so		1. Yes, I think so
2. No, I don't think so	$\longrightarrow$	2. I wouldn't want to
3. I wouldn't want to		3. No, I don't think so

Sometimes it suffices to invert the order of codes. For example, consider the following question with the codes of allowed answers (European Foundation 2007a: 120)

`q22a` How often do you have to interrupt a task you are doing in order to take an unforeseen task?

1. Very often
2. Fairly often
3. Occasionally
4. Never

This question characterizes the functional flexibility. In this case, the higher the code the less the flexibility. No particular re-coding is necessary; it is done automatically by the indication that the flexibility is decreasing as the code grows:

`q22a` (decreasing) Switching to unforeseen tasks		`q22a` (increasing) Switching to unforeseen tasks
1. Very often	=	1. Never
2. Fairly often		2. Occasionally
3. Occasionally		3. Fairly often
4. Never		4. Very often

3.2 Normalizing (HBS methodology)

The next step is scaling re-coded variables (columns of codes in Table 1) in a commensurable way. Every variable is either *normalized* or *standardized*, depending on the methodology. The HBS methodology uses the normalization, that is, bringing the variable range to $[0; 100]$. For this purpose, every variable x (column of Table 1) is transformed in

$$y = \frac{x - x_{\min}}{x_{\max} - x_{\min}} \cdot 100\% \ .$$

The effect of this procedure is that the re-scaled indicator takes values between 0 and 100, so that y means the percentage of the absolute maximum. For instance, the answers 1, 2, 3, and 4 to the above cited question `q22a` are normalized to values 0, 33, 67, and 100%. This scale allows to interpret values of the indices in absolute terms like good or bad, very flexible, or not at all flexible, etc.

Normalization is not applicable to data with outliers — occasional deviations from 'typical' values. In this case normalization makes the 'typical' values almost indistinguishable. For instance, suppose that numerous 'typical' observations are all located around 0 and a single outlier is equal to 1. Then the normalization clusters the 'typical' observations, attributing them almost equally low values.

The data of the *Survey* do not contain outliers, because the codes of answers to survey questions are restricted to a few given values. Continuous variables of large range are calibrated. For instance, income is restricted to 10 deciles (European Foundation 2007a: 99). Therefore, normalization can be consistently applied.

3.3 Standardizing (OECD methodology)

An alternative scaling is recommended by the OECD. Every variable is *standardized*, that is, reduced to the zero-mean and re-scaled to make its standard deviation equal to 1, and (optionally) expressed in %. For this purpose, every variable $x = (x_1, \ldots, x_n)'$ — column of Table 1 — is transformed to

$$y = \frac{x - \mu}{\sigma} \cdot 100\% \quad \text{(standardized variable expressed in \%)} \tag{1}$$

where

$$\begin{aligned} \mu &= \frac{1}{n} \sum_{i=1}^{n} x_i \quad \text{(empirical mean)} \\ \sigma &= \sqrt{\frac{1}{n-1} \sum_{i=1}^{n} (x_i - \mu)^2} \quad \text{(unbiased empirical standard deviation)} \ . \end{aligned}$$

The 0 value of y corresponds to the mean of the variable x, and 100% — to its 'average deviation from the mean'.

Unlike normalization, this method can well discriminate between closely located 'typical' values even in the presence of outliers. In this case the small standard deviation factually enlarges the min–max range and 'moves' the 'typical' values from each other.

At the same time, standardization relativizes 'good' and 'bad' values. For example, some indicator A (say, for flexibility) can have high and some indicator B (say, for precariousness) can have low values. After standardization, all the values are no longer high or

low but medium. For instance, it is impossible to say that flexibile work is little precarious. The only conclusion could be that, for instance, a more flexible work is more precarious. Therefore standardization is adapted rather for benchmarking than for evaluation.

3.4 Weighting

Taking into account advantages and limitations of normalization and standardization, it makes sense to construct indices by both methods. Under both methods, low-level individual indices are summarized with or without weights. It should be emphasized however that standardization, changing the effective range of variables, always introduces equalizing weights.

In our model, the summation of recoded normalized or standardized individual answers is performed with equal weights of questions (with reservations for the standardization which implicitly imposes equalizing weights). The reasons are threefold. Firstly, unequal weights need special motivation, and we have none.

Secondly, if certain questions get higher weights then the opinions of those for whom these questions are of particular importance are overrepresented. For instance, certain firms can be most interested in external numerical flexibility, others in internal numerical flexibility. Therefore, assigning a higher weight to external numerical flexibility, one firms are favored at the price of underrepresenting the opinion of others.

Thirdly, it is a statistical tradition to accept the equal distribution (weights) by default, unless no other information is available; such an assumption satisfies the principle of maximal likelihood; see Kendall and Moran (1963). According to OECD–JRC (2005: 21), 'most composite indicators rely on equal weighting, i.e., all variables are given the same weight'.

3.5 First-level and second-level aggregate indices

The first-level aggregate indices, called *partial indices*, are collected in the fourth section of Table 1. Its every column is the mean (= weighted sum with equal coefficients) of the columns of low-level indices from the corresponding table section. In case of the OECD method the partial indices are additionally standardized column-by column.

For instance, the column *External numerical flexibility* in the fourth section of Table 1 is the normalized sum of the columns *Type of contract*, etc., from the first section *External numerical flexibility*. Under the OECD method, the resulting column is standardized.

The second-level aggregate indices of flexibility and precariousness of work constitute columns of the fifth section of Table 1. They are constructed from relevant partial indices exactly in the same way as partial indices are constructed from low-level indicators.

The interpretation of the individual aggregate and partial indices is as follows. Under the HBS method, a partial index means the average (coded) response of the individual to the questions of the corresponding section of Table 1. 0 and 100 are attained if *all* the questions are answered in the most extreme way.

Under the OECD method, a composite indicator is interpreted as a weighted sum of low-level variables, with the weights being inversely proportional to their standard deviations. Those with smaller deviations get higher weights and thereby become commensurable with the variables with large deviations.

3.6 Methodological reservations

Standardization is a nonlinear non-monotonic transformation. It can happen that answers to a question improve (= the codes increase) but the standardized codes do not. For example assume that four individuals answer to a question with possible answers 0, 1, or 2 and afterwards *all* improve their answers:

$$\begin{matrix} 0 \\ 0 \\ 0 \\ 1 \end{matrix} \quad \begin{matrix} \\ \text{all answers improve} \\ \longrightarrow \\ \\ \end{matrix} \quad \begin{matrix} 1 \\ 2 \\ 2 \\ 2 \end{matrix} \ .$$

After the standardization by formula (1), these codes in % look as follows

$$\begin{matrix} \boxed{-50} \\ -50 \\ -50 \\ \boxed{150} \end{matrix} \quad \begin{matrix} \\ \text{some codes decrease} \\ \longrightarrow \\ \\ \end{matrix} \quad \begin{matrix} \boxed{-150} \\ 50 \\ 50 \\ \boxed{50} \end{matrix}$$

The mean does not grow either (the standardized mean is always equal to 0), so no improvement can be detected but rather a decline.

Under multiple aggregation, standardization performs indirect weighting of intermediate aggregates. Due to the non-monotonicity, smaller partial indices (intermediate aggregates) can result in a greater final index, and greater partial indices — in a smaller final index. It will manifest itself in Figure 2 in Section 4.

Such misleading effects occur under significant variations of individual answers (e.g. in different countries). If variables do not change much then the standardization can be approximated by its first-order Taylor expansion which is a linear function. Linear functions are monotonic, and indices with linear properties are free from the inconsistencies mentioned. Therefore, the OECD method can be well used *locally* under one-level aggregation. *Under multi-level aggregation with successive standardizations, as in our model, results of the OECD method can be difficult to interpret.*

4 Country indices

4.1 Evaluating countries with respect to survey questions

After the individual first-level partial indices and second-level aggregate indices have been constructed they can be processed in several ways. It is most natural to consider their national average as country indices. Under the HBS method, the indices so constructed are the cross country–question or country–partial indices average values. The OECD method additionally introduces weight coefficients to equalize standard deviations of variables and of first-level partial indicators.

Table 3 illustrates three phases in constructing the national indicators. To be specific, consider Belgium with 798 employees interviewed (shown in parentheses in the left table column) and its table cell related to the first question

	q3b (increasing) Type of contract
	1. Indefinite 2. Fixed term 3. Temporary employment agency 4. No contract
BE (798) Belgium	1.15 5/27 −65 / 27

The top element of the cell shows the average national answer coded as shown in the headline. The average Belgian answer 1.15 means that Belgians work mostly with indefinite contracts.

The middle element displays the average of normalized answer codes (by the HBS method). The average code 1.15 is converted into 7%. Thus, this partial indicator of external numerical flexibility is only 7% of its absolute maximum which could be attained if all Belgian employees worked with maximal flexibility, in this case, with no contract. The number 27 after the slash / is the rank of the Belgium figure (computed with the HBS method) in the column. Since the table represents 31 countries, its 31 rows occupy two successive pages, so that every column should be traced in two pages.

The bottom element of the cell is the national average of the individual codes standardized by the OECD method. Its value −65 says that the Belgian average is 65% (of the standard deviation) below the European mean computed for all 23788 individuals interviewed (not for countries!). The rank 27 after the slash indicates the position of Belgium in the row. Since standardization with *fixed* mean and standard deviation is a linear transformation (the mean and standard deviation are constant for each column), the rank is the same as for the normalized figure (the situation will be different for aggregated indices).

4.2 Evaluating countries with respect to partial indices

Beginning from Sheet W, the layout of table cells is somewhat different. They no longer display figures for single questions but show first level aggregate indices — partial indices

for groups of questions *External numerical flexibility*, *Internal numerical flexibility*, etc. For example, consider the Belgian cell for the *External numerical flexibility*:

	Partial indices
	External numerical flexibility
	Mean score
BE (798) Belgium	8/28 −70 / 28

The top left figure 8 means the 8%-external numerical flexibility computed by the HBS method. It is obtained by taking the mean of normalized answers to the two questions from the section *External numerical flexibility*. The 100% would be attained if *all* Belgians declared the maximal flexibility with respect to *all* questions from the section *External numerical flexibility*. The top right figure 28 after the slash is the Belgian rank in the column.

The bottom left element of the cell −70 is the external numerical flexibility of Belgium computed by the OECD method. For this purpose, the 23788-long *columns* of standardized individual indices from the section *External numerical flexibility* are summarized, and then the summary column is standardized again. Then the codes of Belgian respondents are selected, and their mean is computed. It gives the −70 displayed. Note that the ranks of partial indices obtained with both methods do not differ much in columns of Table 3.

4.3 Evaluating countries with respect to aggregate indices

The second-level aggregate indices of flexibility and precariousness are shown in Sheets Y–Z2 of Table 3. They are computed from summation of national partial indices in the same way as partial indices are obtained from groups of questions. Due to two-step aggregation, of questions and of partial indices, the ranks of the aggregate indices obtained by HBS and OECD methods are not that similar as after the first aggregation. Still, they are not much contradictory.

The operational difference in computing normalized and standardized indices is that the first method processes Table 3 row-by-row, whereas the standardization also transforms columns at each aggregation stage. Therefore, the aggregation along rows is independent under the HBS method and dependent under the OECD method which introduces context-dependent weighting.

5 Analysis

5.1 Institutional and factual flexibility of work

The composition of aggregate indices of flexibility and of precariousness of work computed by the HBS method is depicted in Figure 1, and by the OECD method — in Figure 2. The contribution of partial indices to the aggregate indices is shown by color bars with the values of partial indices given in %.

Note that the OECD method attributes unequal weights to variables with different range which is reflected by the size of color bars. For example, under the HBS method, the contribution of externalization flexibility to the aggregate flexibility is the least. Under the OECD method, its role is equalized with other types of flexibility.

The countries are ordered by the aggregate flexibility and precariousness indicated in % at the right-hand end of bars. Under the HBS method, the aggregate index is the mean of the partial indices, and it is proportional to the total length of the color bars.

Under the OECD method, the aggregate index is not proportional to the total length of color bars. It is seen in the non-monotonic decrease of the total bar length contrary to monotonically decreasing aggregate index — the side effect of successive standardizations; for explanations see Section 3.6.

Figures 1–2 present some surprises. Turkey is at the top of flexibility charts in both of them. In Figure 1, its aggregate flexibility attains 43% with the external numerical flexibility being as high as 71%. Figure 2 shows that Turkey deviates from the European mean 0 upwards twice as much as Lithuania deviates from it downwards (the closest to the European mean is United Kingdom with flexibility -7%).

It is indeed unexpected, because according to OECD (2004: 117), Turkey has the most strict employment protection legislation (EPL) among all the OECD countries; and the indicator of EPL is generally used to characterize the external numerical flexibility[3]. This contradiction is explained as follows. The OECD evaluation is based on institutional arrangements, showing that the Turkish regulation of 'firing and hiring' is very strict. The survey data are empirical, and reveal that 302 of 454 employees interviewed (in fact, 459 but 5 did not answer) work with no contract, that is, 67% of all employees are not subjects to labour market regulation and are working in the most flexible way.

A similar situation is inherent in Malta, where 201 of $507 = 40\%$ employees work with no contract, Cyprus (201 of $482 = 42\%$), and Greece (179 of 629 =28%) — another OECD country with a very strict employment protection, see OECD (2004: 117).

On the other hand, the United Kingdom with a renown relaxed employment protection legislation (ranked by the OECD as the next to last, the last being the USA) has only 130

[3]The flexibility indicator of this study does not take into account the institutional regulation. It might be possible to include the OECD indicator of EPL in the list of index variables, but it is not done by two reasons. First, our study is purely empirical and based on facts rather than on subjective expert estimations incorporated in the OECD indicator. The OECD itself recognizes that 'the scoring algorithm is somewhat arbitrary' (OECD 1999: 115).

Second, the OECD indicator evaluates the strictness of protection of permanent and of temporary employment from different viewpoints. It manifests itself in higher EPL-scores of temporary employment than that of permanent employment for Belgium (score of permanent employment 1.7, and score for temporary employment 2.6), France (2.5 and 3.6, respectively), Greece (2.4 and 3.3), Italy (1.8 and 2.1), Norway (2.3 and 2.9), Spain (2.6 and 3.5), and Turkey (2.6 and 4.9); see OECD (2004: 117). An indicator which evaluates the strictness of employment protection for temporary employment higher than for permanent employment can hardly measure the flexibility of work.

Figure 1: Composition of country indices normalized (HBS methodology: 0%—absolute minimum, 100%—absolute maximum) for flexibility and precariousness of work

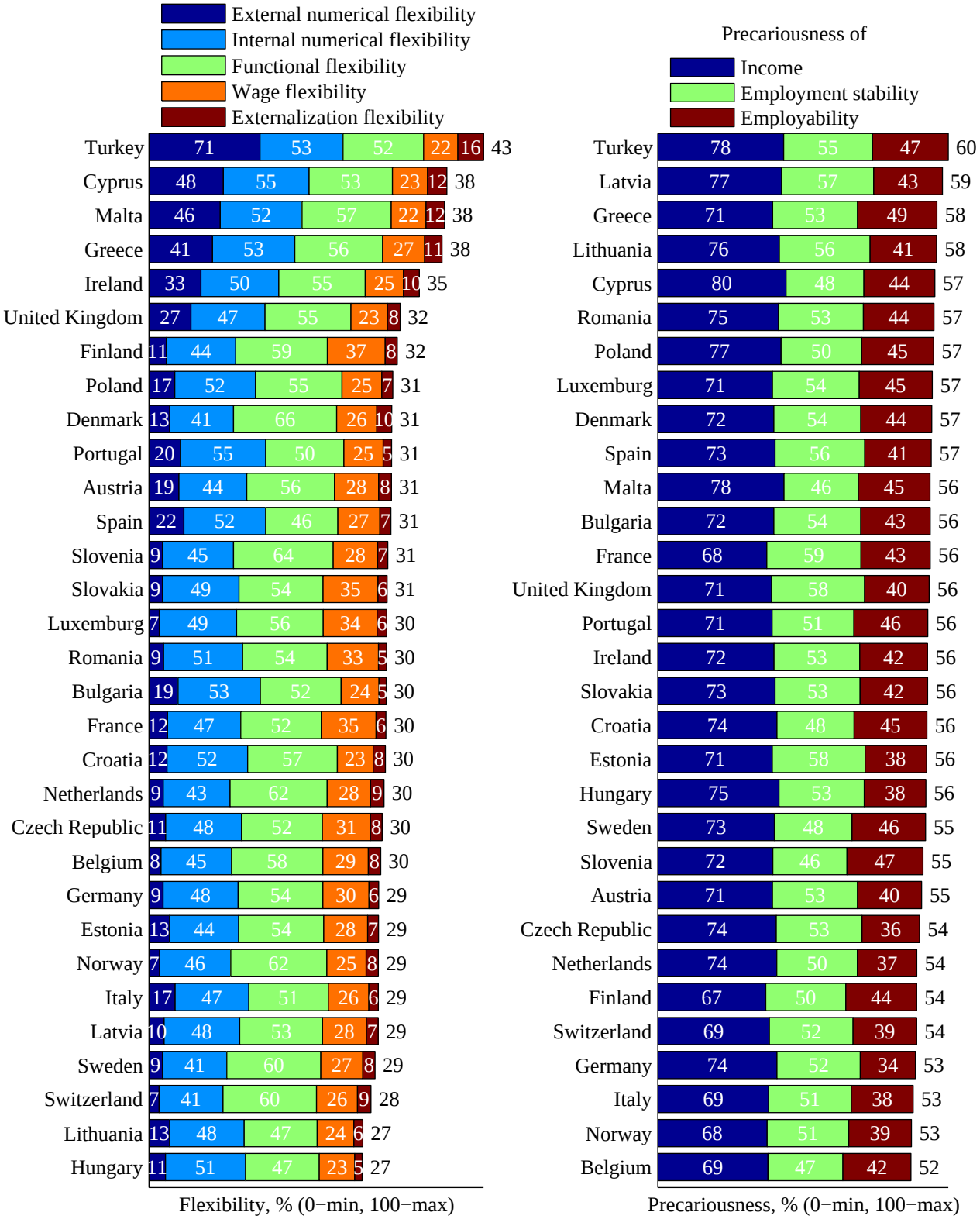
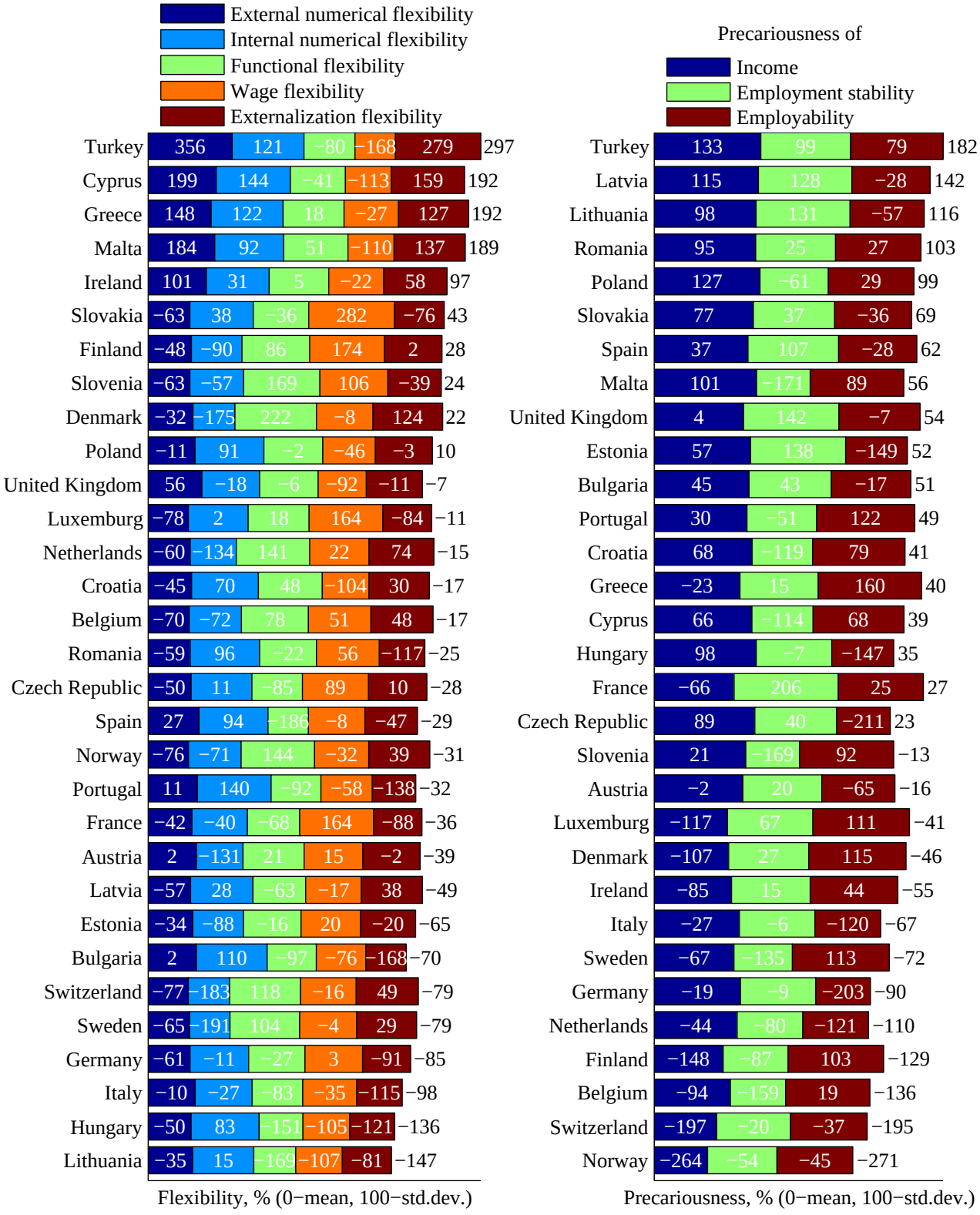


Figure 2: Composition of country indices standardized (OECD methodology: 0%—mean, 100%—standard deviation) for flexibility and precariousness of work



of 876 (= 15%) employees with no contract. Since a relaxed employment protection is still more restrictive than none, the United Kingdom with the aggregate flexibility 32% (by the HBS method; in the estimation by the OECD method it is even under the European mean!) finds itself behind Turkey whose strict legislation is factuall applicable to 1/3 of employees only.

Thereby *factual and institutional situations drastically differ. The empirical reality is quite far from the institutional picture!*

5.2 Dependence of precariousness and flexibility of work in Europe

Figures 3–4 show the location of European countries on the flexibility–precariousness plane. The regression line in Figure 3 (for the HBS method) computed for 31 European countries shows an increase of the precariousness of work as its flexibility increases. The regression line has the degree of steepness 28%; see the first regression equation beyond the plot. The negligible small $P_F = 0.34\%$ excludes the 0-hypothesis, that the real inclination of the line can be zero.

The country-regression line for the indices constructed by the OECD method in Figure 4 has the degree of steepness 26%, but the countries are located somewhat differently, and the P-value $P_F = 15.84\%$.

The second regression line in both plots is fitted to 23788 individuals. It is less steep, having the degree of steepness 12% and 7% for the indices computed by the HBS and OECD methods, respectively (see the second equation over the plots). However, due to a much larger number of observations than for countries the P-value $P_F = 0.0000$ is negligibly small, so that the fact of positive correlation between flexibility and precariousness of work is statistically certain under both HBS and OECD methods.

Thus, *the regression analysis reveals a positive dependence between flexibility and precariousness of work all over Europe.*

5.3 Impact of flexibility of work on employability

A more detailed analysis of the impact of flexibility of work on its precariousness is displayed in Table 2.

The 6×4-table with triple cells replaces 72 plots like in Figures 3–4. Each cell contains three regression coefficients which determine the inclination of the regression line fitted to indices of 23788 individuals. Consider the top-left cell at the cross-section of row *Aggregated flexibility* and column *Aggregated precariousness*:

	Aggregate precariousness	
Aggregate flexibility	HBS	0.12
	OECD	00.7
	HBS_{std}	0.11

The top value is the coefficient 0.12 from the regression equation in Figure 3 for the indices constructed by the HBS method, and the middle value is the coefficient 0.07 from the regression equation in Figure 4 for the indices constructed by the OECD method. Since

Figure 3: Dependence between aggregated flexibility and precariousness indices normalized (HBS methodology) for European countries: BE—Belgium, CZ—Czech Republic, DK—Denmark, DE—Germany, EE—Estonia, EL—Greece, ES—Spain, FR—France, IE—Ireland, IT—Italy, CY—Cyprus, LV—Latvia, LT—Lithuania, LU—Luxemburg, HU—Hungary, MT—Malta, NL—Netherlands, AT—Austria, PL—Poland, PT—Portugal, SI—Slovenia, SK—Slovakia, FI—Finland, SE—Sweden, UK—United Kingdom, BG—Bulgaria, HR—Croatia, RO—Romania, TR—Turkey, NO—Norway, CH—Switzerland

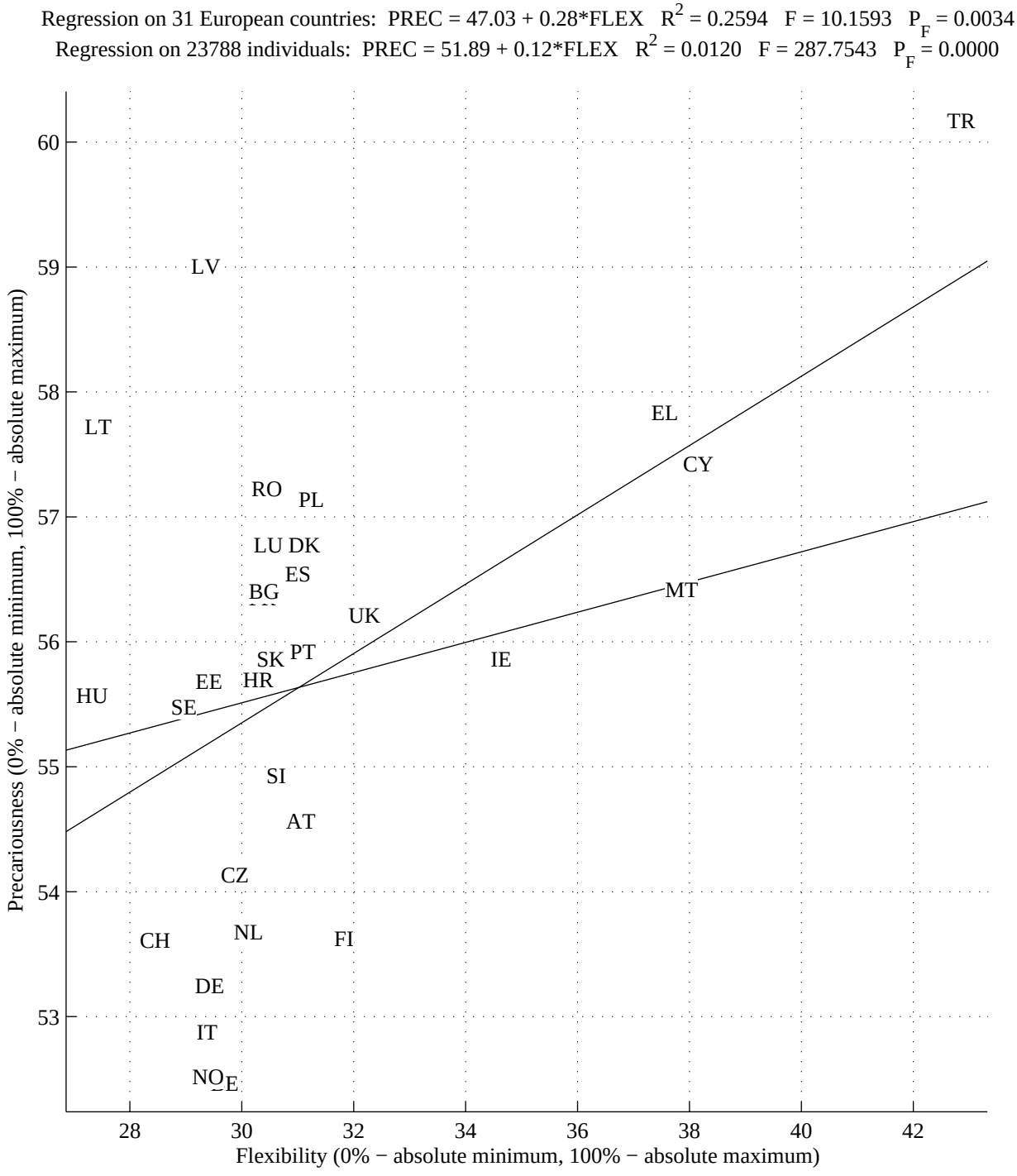


Figure 4: Dependence between aggregated flexibility and precariousness indices standardized (OECD methodology) for European countries: BE—Belgium, CZ—Czech Republic, DK—Denmark, DE—Germany, EE—Estonia, EL—Greece, ES—Spain, FR—France, IE—Ireland, IT—Italy, CY—Cyprus, LV—Latvia, LT—Lithuania, LU—Luxemburg, HU—Hungary, MT—Malta, NL—Netherlands, AT—Austria, PL—Poland, PT—Portugal, SI—Slovenia, SK—Slovakia, FI—Finland, SE—Sweden, UK—United Kingdom, BG—Bulgaria, HR—Croatia, RO—Romania, TR—Turkey, NO—Norway, CH—Switzerland

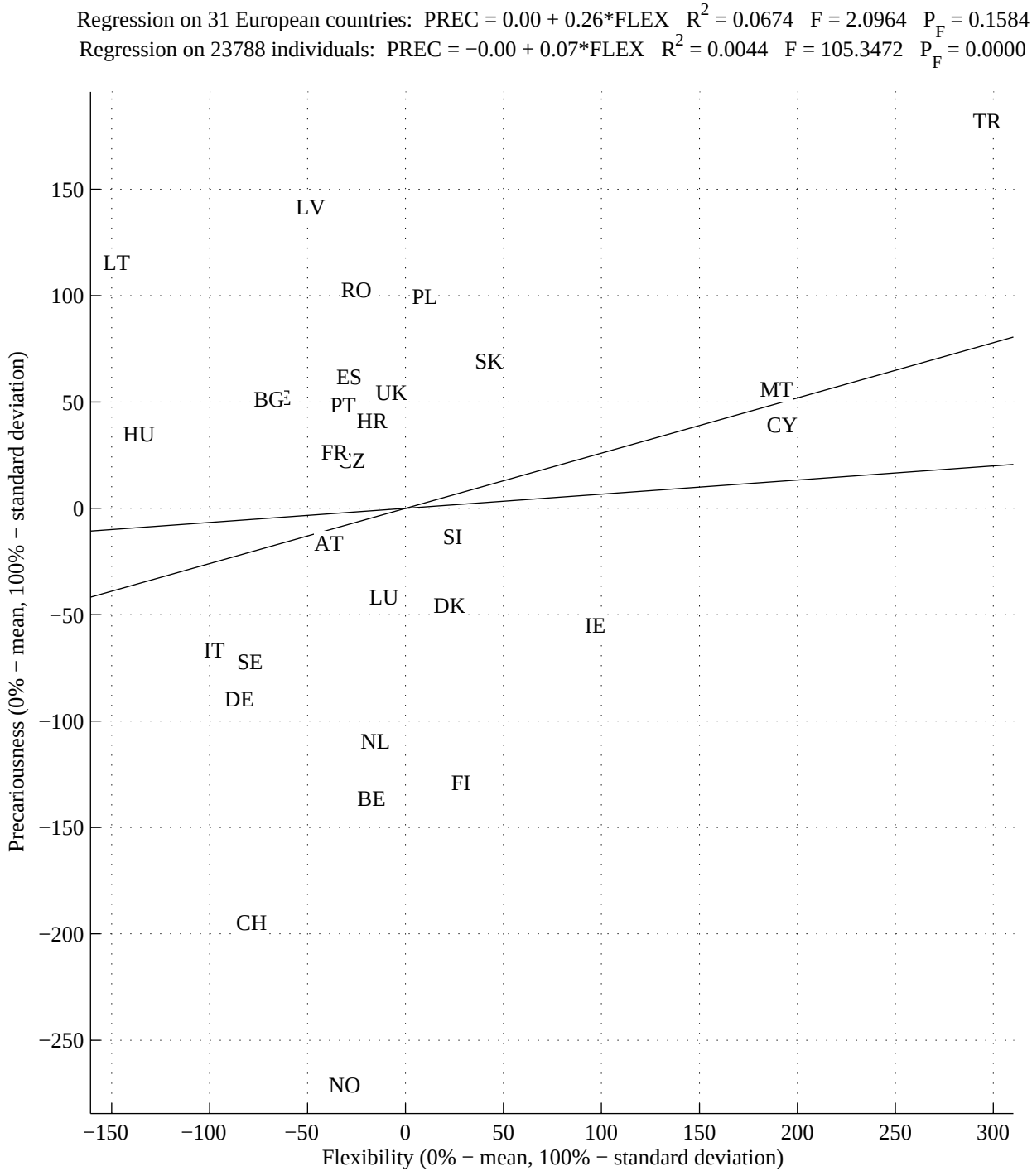


Table 2: Overview of the influence of flexibility of work on its precariousness for 23788 employees interviewed: regression coefficients ranked within the table sections for indices computed by HBS method, by OECD method, and by HBS method but with results expressed in the OECD standardized scales — for an adequate comparison with the OECD method; * indicates a non-significant deviation of the coefficient from 0 ($\mathsf{P}\{H_0 : b = 0\} > 0.05$)

	Aggreggate precariousness	Precariousness of		
		Income	Employment stability	Employability
Aggregate flexibility	HBS 0.12 OECD 0.07 HBS_{std} 0.11	HBS 0.03 /3 OECD −0.05 /3 HBS_{std} 0.02 /3	HBS 0.05 /2 OECD −0.02 /2 HBS_{std} 0.03 /2	HBS 0.28 /1 OECD 0.18 /1 HBS_{std} 0.12 /1
External numerical flexibility	HBS 0.03 /2 OECD 0.12 /1 HBS_{std} 0.10 /1	HBS 0.04 /7 OECD 0.14 /3 HBS_{std} 0.09 /5	HBS 0.07 /5 OECD 0.12 /5 HBS_{std} 0.13 /2	HBS −0.02 /9 OECD −0.05 /10 HBS_{std} −0.03 /9
Internal numerical flexibility	HBS 0.01 /4 OECD 0.07 /2 HBS_{std} 0.02 /4	HBS 0.09 /4 OECD 0.14 /2 HBS_{std} 0.10 /4	HBS 0.01* /8 OECD 0.03 /7 HBS_{std} 0.01* /8	HBS −0.06 /11 OECD −0.05 /9 HBS_{std} −0.05 /11
Functional flexibility	HBS 0.03 /3 OECD −0.00* /3 HBS_{std} 0.05 /2	HBS −0.07 /12 OECD −0.17 /15 HBS_{std} −0.10 /14	HBS −0.12 /15 OECD −0.13 /13 HBS_{std} −0.12 /15	HBS 0.27 /1 OECD 0.29 /1 HBS_{std} 0.26 /1
Wage flexibility	HBS −0.00* /5 OECD −0.04 /5 HBS_{std} −0.00* /5	HBS −0.08 /14 OECD −0.13 /14 HBS_{std} −0.09 /13	HBS −0.08 /13 OECD −0.07 /11 HBS_{std} −0.06 /12	HBS 0.15 /2 OECD 0.13 /4 HBS_{std} 0.12 /3
Externalization flexibility	HBS 0.04 /1 OECD −0.01* /4 HBS_{std} 0.04 /3	HBS −0.06 /10 OECD −0.09 /12 HBS_{std} −0.04 /10	HBS 0.05 /6 OECD −0.00* /8 HBS_{std} 0.03 /7	HBS 0.14 /3 OECD 0.07 /6 HBS_{std} 0.07 /6

the inclination of the regression line depends on axes scaling, comparisons of regression coefficients should be done in the same scales. Therefore, the first (HBS) coefficient is converted to the standardized scale, that is,

$$\mathrm{HBS}_{\mathrm{std}} = \frac{\sigma_X}{\sigma_Y}\mathrm{HBS} \ ,$$

where σ_X is the standard deviation of the vector of 23788 individual aggregate flexibility indices, and σ_Y is the standard deviation of the vector if 23788 individual aggregate precariousness indices[4]. In the given case, it gives 0.11.

The following cells of the first row of Table 2 display similar coefficients but derived for individual aggregate flexibility indices and partial individual indices of precariousness of work. According to the HBS method, the impact of flexibility on *Precariousness of employability* is positive (0.05), whereas according to the OECD method, the same coefficient is negative (-0.02). The coefficients are provided with ranks within the sections of the table. The largest regression coefficients in the upper section, unambiguously top-ranked with respect to all computation methods, are located at the right hand — in the column *Employability*, meaning that flexibility has here the most strong negative impact.

The left-hand section (first column) of Table 2 shows that the influence of particular forms of flexibility on the aggregate precariousness of work is quite small. The regression coefficients marked with * are the ones which deviation from 0 is not statistically significant (the null hypothesis, that the coefficient is equal to 0, has the statistical significance greater than 5%). The top-left section for both aggregate indicators shows that all constituents together provide a much more strong impact.

The main section of Table 2 displays the cross influence of flexibility types on types of precariousness of work.

- External numerical flexibility has a small and often statistically non-significant influence on all precariousness factors except for employment stability which precariousness increases as flexibility grows.

- Internal numerical flexibility implies a somewhat precarious income but improves the employability.

- Functional flexibility increases the aggregate precariousness, especially the precariousness of employability, but has a positive influence on income and employment stability.

- Wage flexibility has little influence on the aggregate precariousness of work, decreases employability, but makes some positive impact on income and employment stability.

- Externalization flexibility improves income, does not much affect employment stability, and decreases employability.

The ranking and values of regression coefficients show that *the impact of* Functional flexibility *on* Precariousness of employability *is by far stronger than any other interaction. The next is the impact of* Wage flexibility*, again on* Precariousness of employability*.*

[4]The regression coefficient in standardized scales is nothing else but the correlation coefficient between variables. It follows from the formula for the regression coefficient $\beta_1 = \frac{\sigma_Y}{\sigma_X}\rho_{XY}$ (Prohorov 1984: 930).

5.4 Dependence of precariousness and flexibility of work in European countries

Figure 5 is a visual representation of a version of Table 2. It represents the values of regression coefficients computed with the HBS method only, providing the coefficients for 31 countries separately. The countries are ordered by the decreasing dependence between aggregate indices in the top-left plot, corresponding to the top-left section of Table 2); the figure is too large for a single page and continues row-by-row on subsequent pages. The plots demonstrate the same trends as Table 2. As one can see, the strongest dependence of precariousness of work on its flexibility is inherent in Norway, Germany, Poland and Croatia. The results for the indices constructed by the OECD method are similar, and we do not provide them here.

Since the number of employees interviewed in each country is about 400–800, which is much less than the total 23788, the statistical significance of the null-hypothesis (that the regression coefficient is equal to 0) is no longer negligibly small. The regression coefficients which deviation from 0 is statistically not significant (P-value$>$ 5%) are printed in grey color.

Note that Turkey with highest flexibility and highest precariousness of work (Figures 1–2) does not show a statistically significant dependence between both indices. At the same time, Norway with a relatively low flexibility and lowest precariousness of work (Figure 1–2), has the strongest dependence between both factors.

We conclude that, *a high average flexibility and precariousness of work in a country do not necessarily imply their high interdependence within the country.*

5.5 Dependence of precariousness and flexibility of work in social groups

Figures 6–11 summarize the results of regression analysis with the indices constructed by the HBS method for different European social groups (plots based on the indices constructed with the OECD method are similar):

Figure 6 displays the regression coefficients computed for social groups classified by **occupation (simplified ISCO classification)**: L—Legislators and senior officials and managers, P—Professionals, T—Technicians and associated professionals, C—Clerks, S—Service/shop/market sales workers, A—Agricultural and fishery skilled workers, W—Craft and related trades workers, O—Operators of machines and plants and assemblers, E—Elementary occupations, M—Military and armed forces.

Figure 7 displays the regression coefficients computed for social groups classified by **industry branch (simplified NACE classification)**: A+B—Agriculture, hunting, forestry, and fishing, C+D—Mining and manufacturing, E—Electricity, gas and water supply, F—Construction, G—Wholesale and retail trade, repair of motor vehicles and household goods, H—Hotels and restaurants, I—Transport, storage and communication, J—Financial intermediation, K—Real estate, renting and business activities, L—Public administration and defence; compulsory social security, M+N—Education, health and social work.

Figure 5: Sheet A. Regression coefficients for normalized (HBS methodology) dependence of aggregate and partial indices of work precariousness from aggregate and partial flexibility indices by country; a non-significant difference of the coefficient from 0 ($\mathsf{P}\{H_0\} > 0.05$) is shown by grey font color: BE—Belgium, CZ—Czech Republic, DK—Denmark, DE—Germany, EE—Estonia, EL—Greece, ES—Spain, FR—France, IE—Ireland, IT—Italy, CY—Cyprus, LV—Latvia, LT—Lithuania, LU—Luxemburg, HU—Hungary, MT—Malta, NL—Netherlands, AT—Austria, PL—Poland, PT—Portugal, SI—Slovenia, SK—Slovakia, FI—Finland, SE—Sweden, UK—United Kingdom, BG—Bulgaria, HR—Croatia, RO—Romania, TR—Turkey, NO—Norway, CH—Switzerland

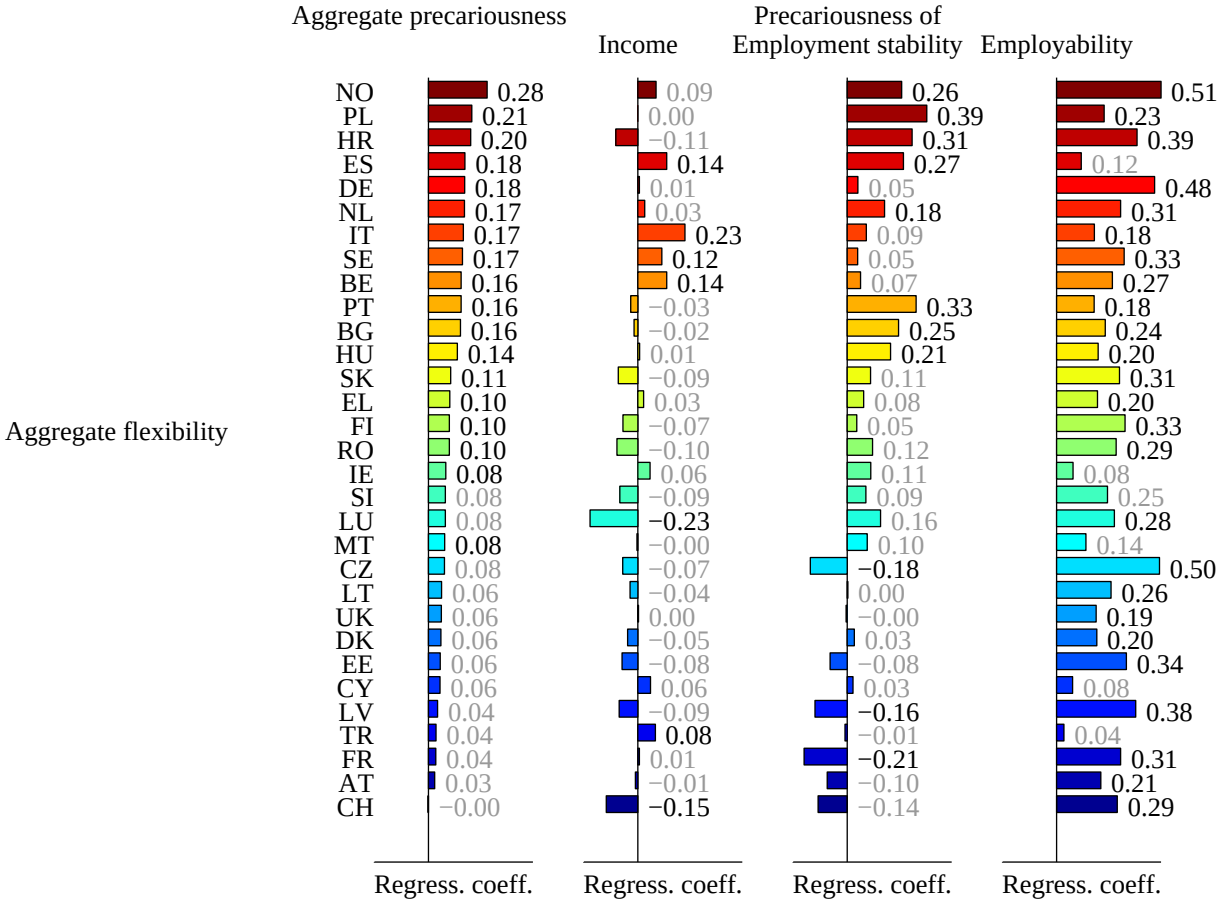


Figure 5: Sheet B. Regression coefficients for normalized (HBS methodology) dependence of aggregate and partial indices of work precariousness from aggregate and partial flexibility indices by country

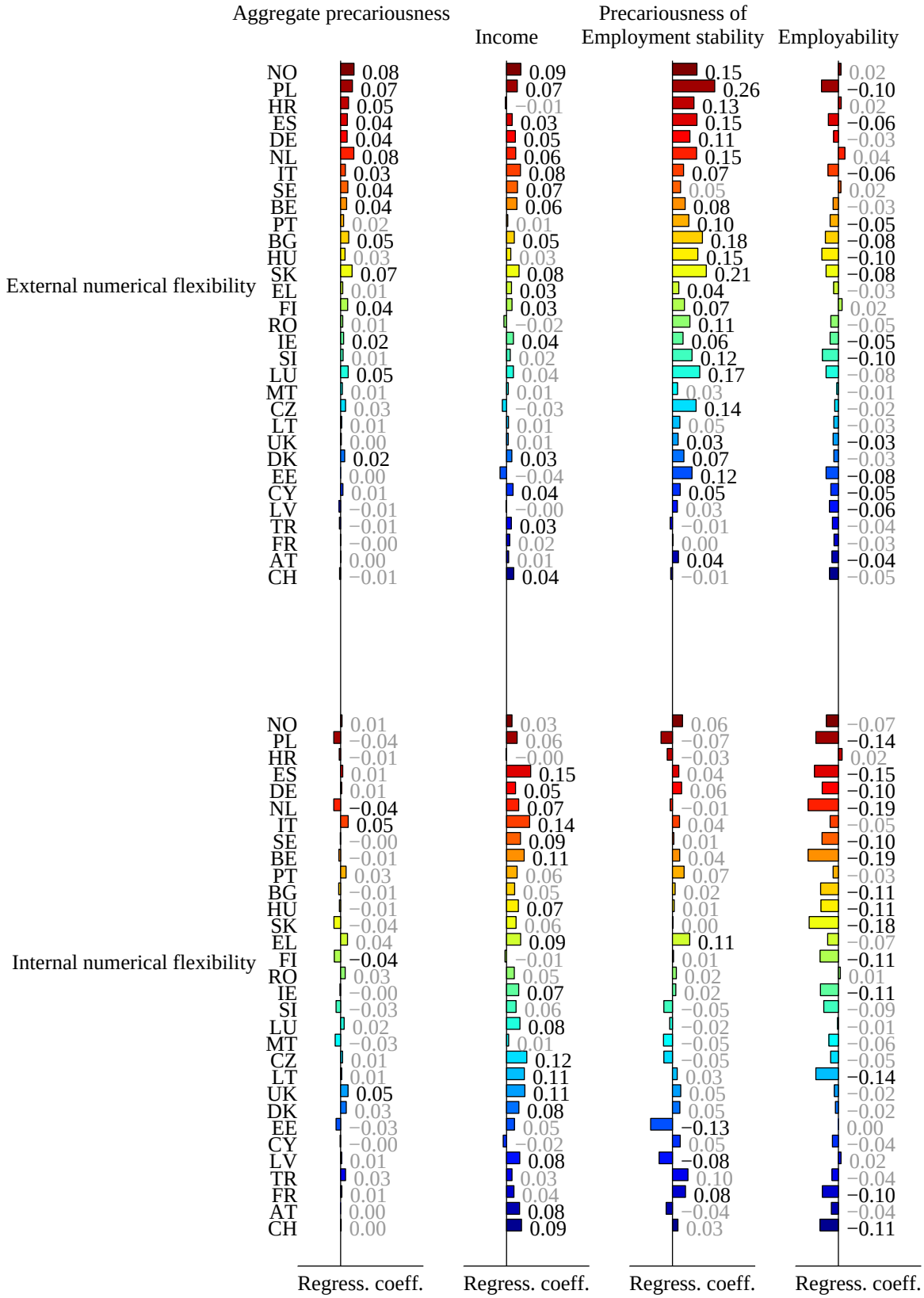


Figure 5: Sheet C. Regression coefficients for normalized (HBS methodology) dependence of aggregate and partial indices of work precariousness from aggregate and partial flexibility indices by country

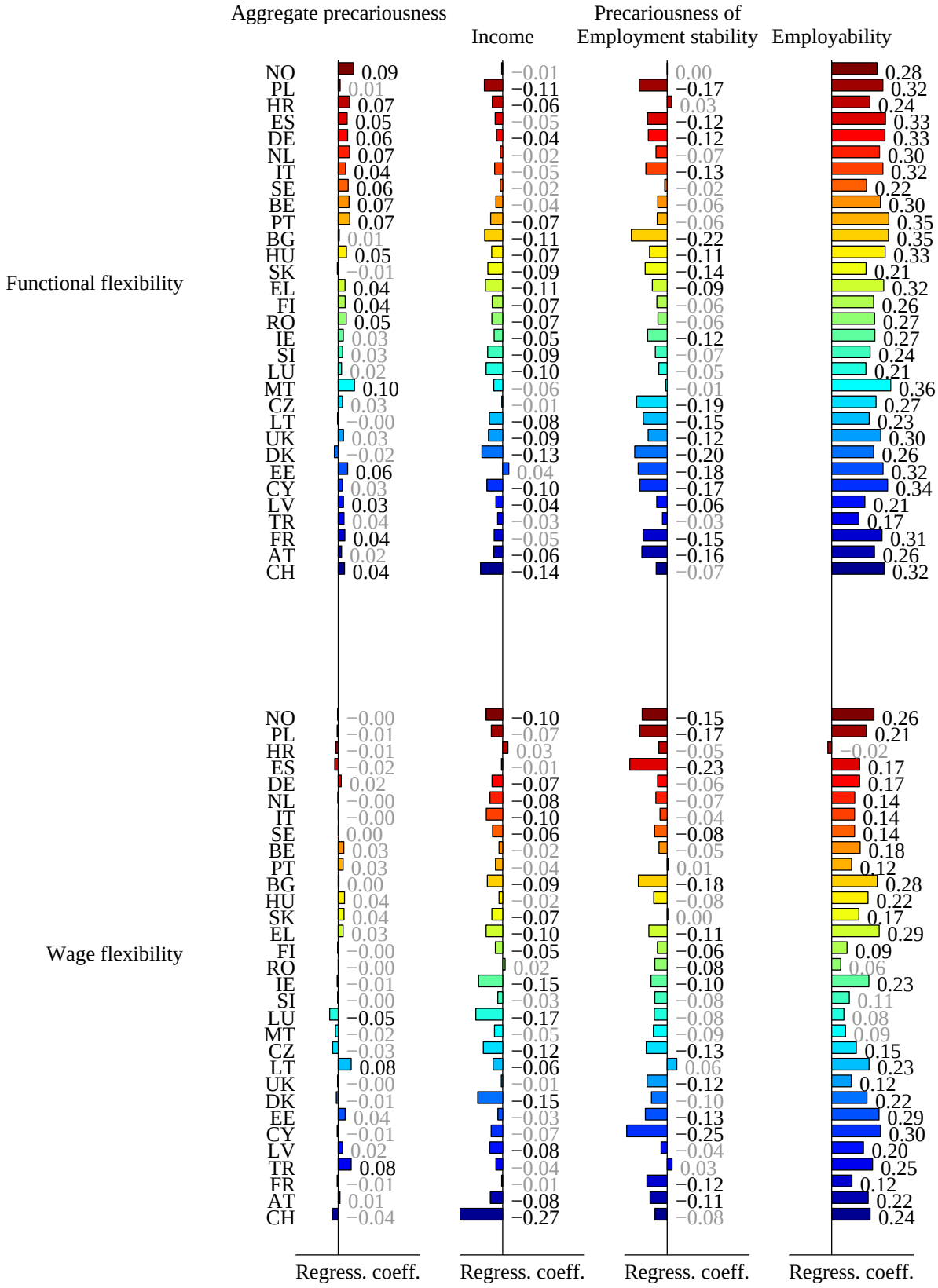


Figure 5: Sheet D. Regression coefficients for normalized (HBS methodology) dependence of aggregate and partial indices of work precariousness from aggregate and partial flexibility indices by country

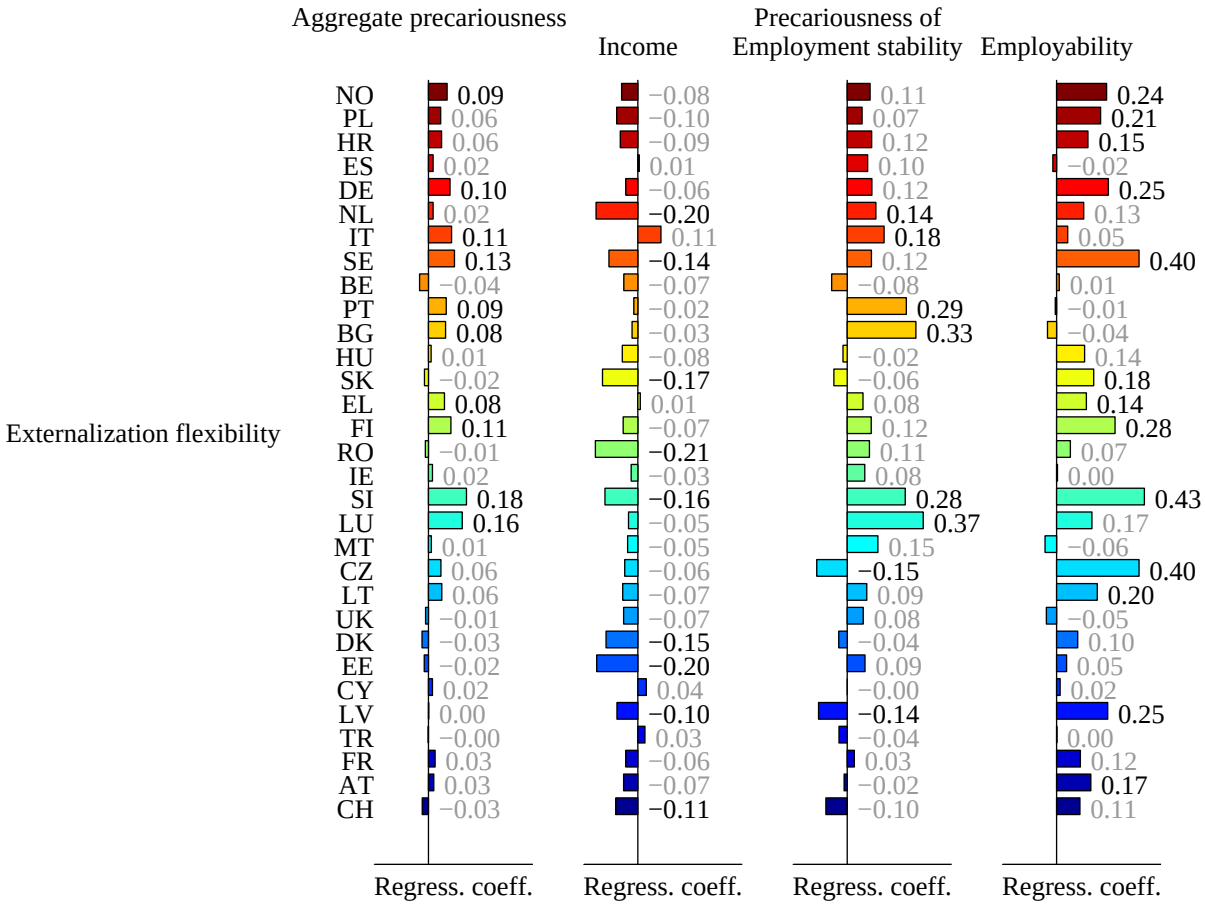


Figure 8 displays the regression coefficients computed for social groups classified by **size of local unit**: 1—One employee, 3—2–4 employees, 7—5–9 employees, 30—10–49 employees, 70—50–99 employees, 150—100–249 employees, 300—250–499 employees, 500+ —500 and over.

Figure 9 displays the regression coefficients computed for social groups classified by **sector**: Prv—Private sector, Pub—Public sector, P-P—Joint private-public organisation or company, NGO—Non-profit sector, NGO, O—Other.

Figure 10 displays the regression coefficients computed for social groups classified by **gender**: men or women.

Figure 11 displays the regression coefficients computed for social groups classified by **type of contract**: P—Permanently employed, F—Fixed-term employed, T— Temporary employment agency workers, N—Work with no contract.

This figure needs some comments. All regression coefficients in the row *External numerical flexibility*, except for the group 'F—Fixed-term employed' are *NaN* (= not a number), because they cannot be computed. The partial index *External numerical flexibility* is derived from two survey questions: `q3b` 'Type of contract' and `q3cr` 'Duration of contract'. All respondents from every social group selected give the same answer to the first question: the respondents from the group of permanently employed answer that they have indefinite contract, the respondents from the group of fixed-term employed answer that they have a temporary contract, etc. The second question, on the duration of contract, is answered only by fixed-term employed (so conditioned by the *Survey*). Therefore, the partial index *External numerical flexibility* is variable only within the group of fixed-term employed, and estimating the regression coefficients for other groups makes no sense. *Such a situation occurs, because question* `q3b` *used in constructing the indices takes the role of classifier.*

All the figures demonstrate that, regardless of the selection of social groups, *Functional flexibility*, *Wage flexibility*, and, eventually, *Externalization flexibility* have the most strong negative impact on *Employability*.

6 Conclusions

1. Composite indices of flexibility and precariousness of work and of their aspects are constructed by methodologies of the Hans Böckler Foundation, and of the OECD. Both families of indices show that the institutional regulation of employment does not necessarily imply the adequate factual effect. For instance, Turkey and Greece with a strict employment protection legislation have a high labour market flexibility due to a large fraction of employees who work with no contract.

2. The analysis of interaction of flexibility and precariousness indices shows that the more flexible employment, the more it is precarious. The employment flexibility has the most negative effect on the employability.

3. It implies serious arguments against the recent reconsideration of the function of social security attempted by the European Commission. A shift from income security towards a high employability within the flexicurity strategy cannot be consistently implemented. Our study provides empirical evidence that a high employability can hardly attained under flexible employment.

Figure 6: Sheet A. Regression coefficients for normalized (HBS methodology) dependence of aggregate and partial indices of work precariousness from aggregate and partial flexibility indices by occupation (ISCO); a non-significant difference of the coefficient from 0 ($\mathsf{P}\{H_0\} > 0.05$) is shown by grey font color: L—Legislators and senior officials and managers, P—Professionals, T—Technicians and associated professionals, C—Clerks, S—Service/shop/market sales workers, A—Agricultural and fishery skilled workers, W—Craft and related trades workers, O—Operators of machines and plants and assemblers, E—Elementary occupations, M—Military and armed forces

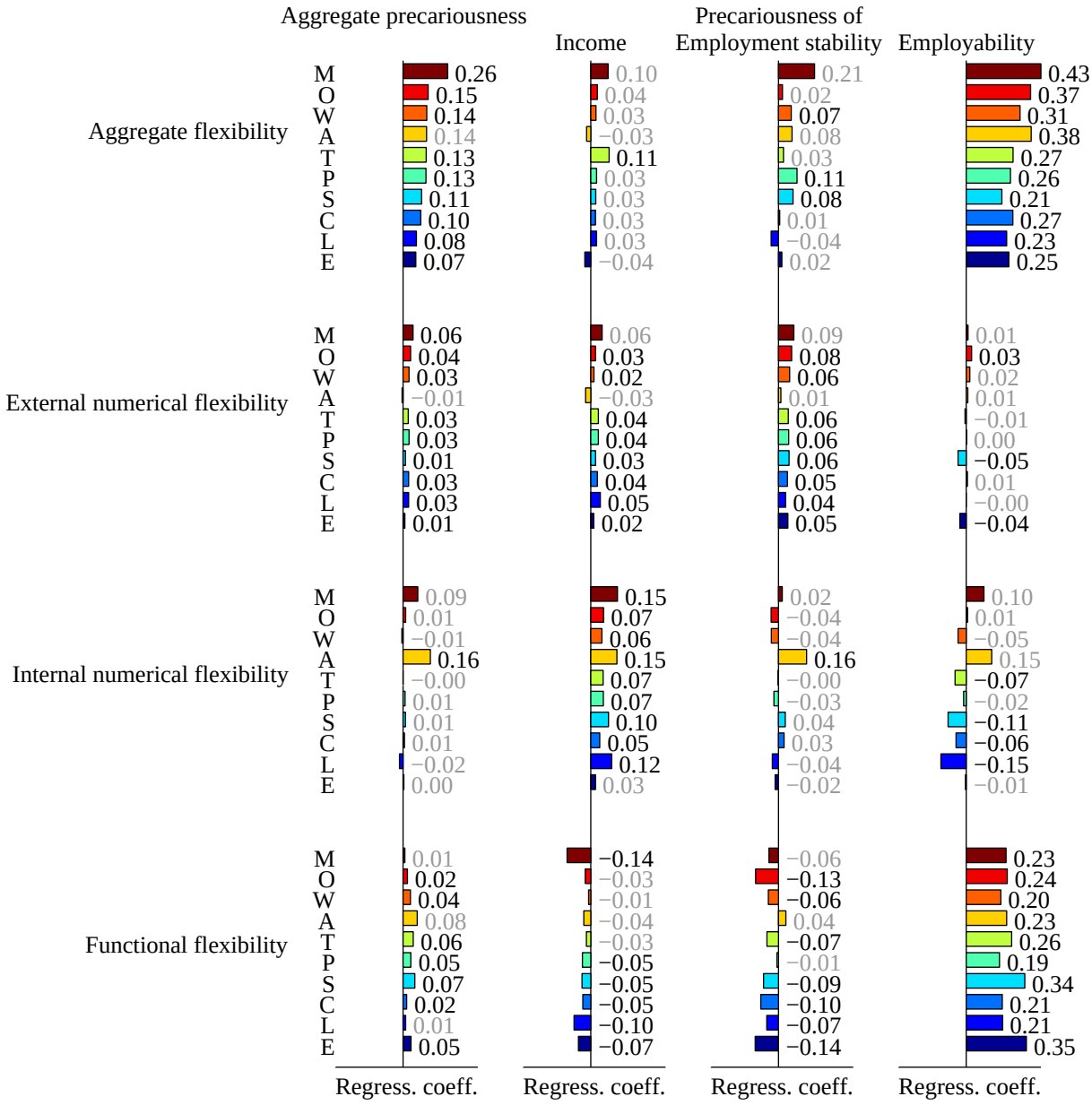


Figure 6: Sheet B. Regression coefficients for normalized (HBS methodology) dependence of aggregate and partial indices of work precariousness from aggregate and partial flexibility indices by occupation (ISCO)

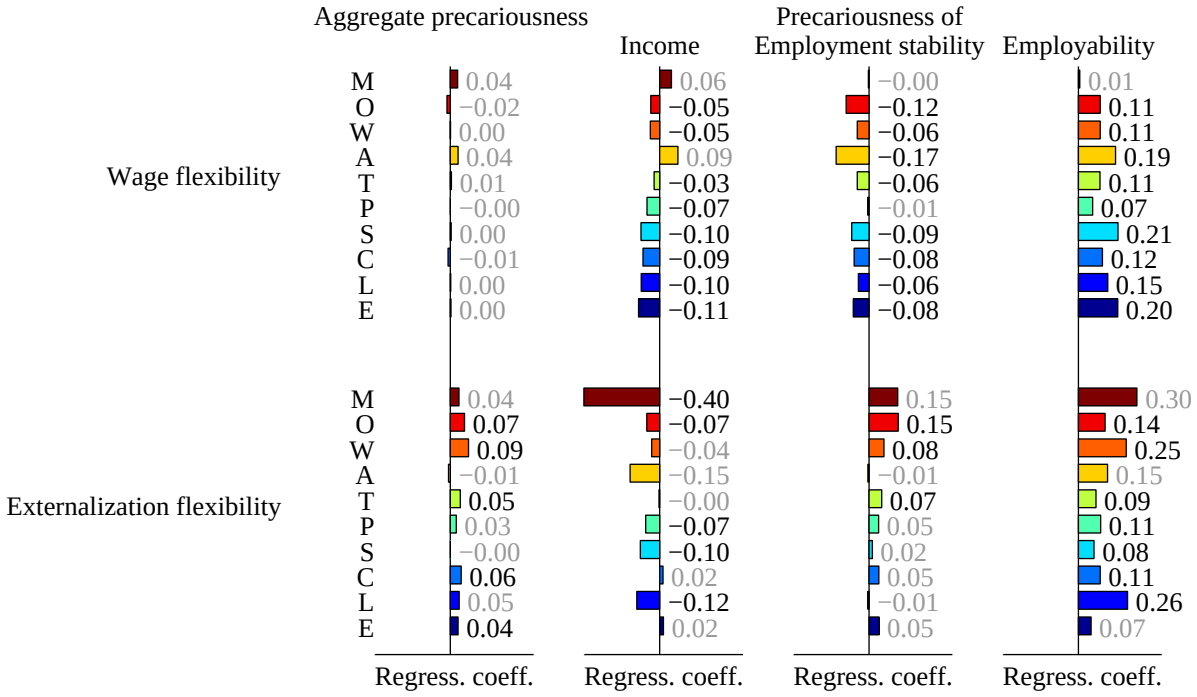


Figure 7: Sheet A. Regression coefficients for normalized (HBS methodology) dependence of aggregate and partial indices of work precariousness from aggregate and partial flexibility indices by industry branch (NACE); a non-significant difference of the coefficient from 0 ($\mathsf{P}\{H_0\} > 0.05$) is shown by grey font color: A+B—Agriculture, hunting, forestry, and fishing, C+D—Mining and manufacturing, E—Electricity, gas and water supply, F—Construction, G—Wholesale and retail trade, repair of motor vehicles and household goods, H—Hotels and restaurants, I—Transport, storage and communication, J—Financial intermediation, K—Real estate, renting and business activities, L—Public administration and defence; compulsory social security, M+N—Education, health and social work

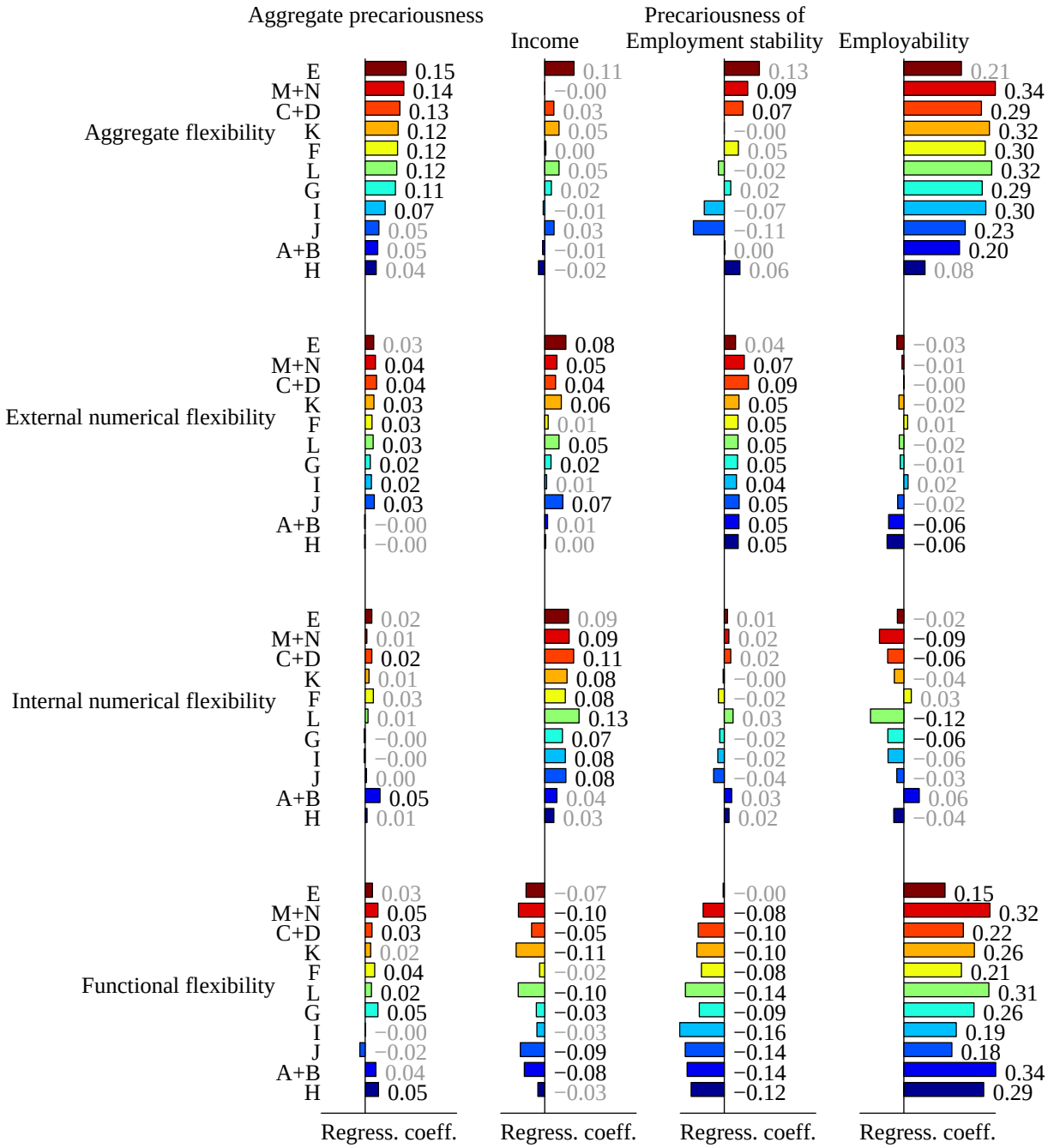


Figure 7: Sheet B. Regression coefficients for normalized (HBS methodology) dependence of aggregate and partial indices of work precariousness from aggregate and partial flexibility indices by industry branch (NACE)

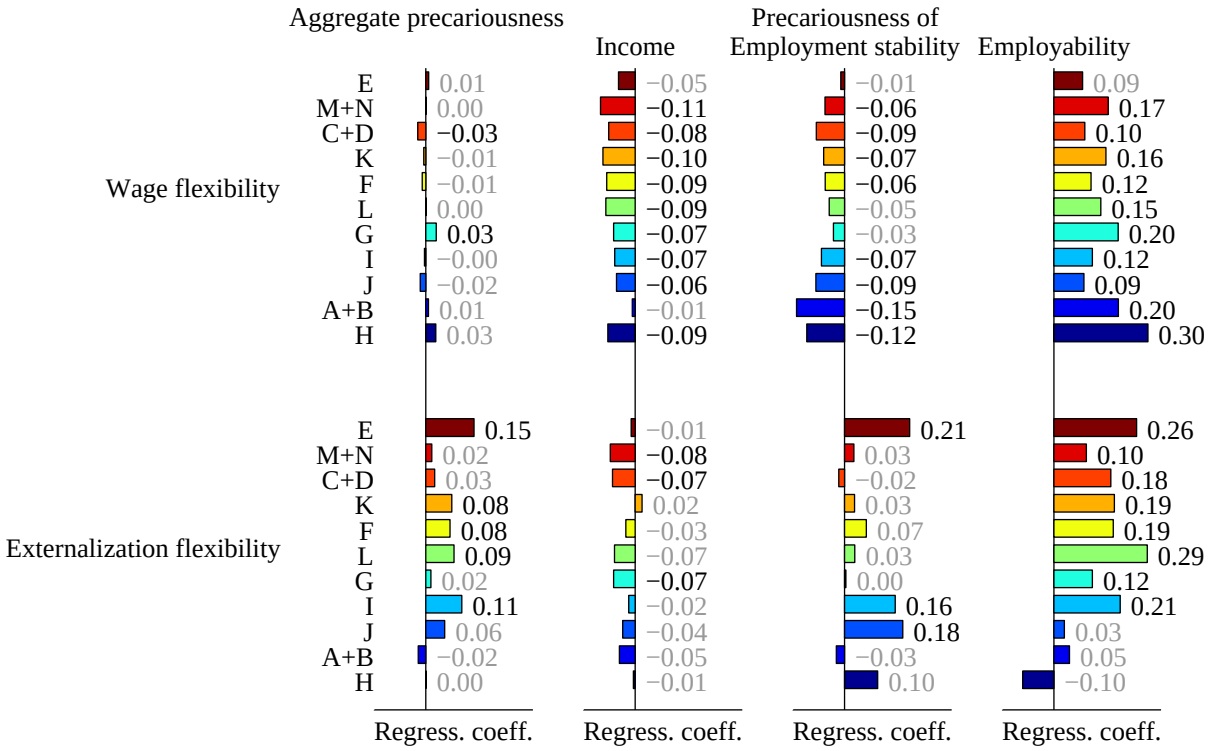


Figure 8: Regression coefficients for normalized (HBS methodology) dependence of aggregate and partial indices of work precariousness from aggregate and partial flexibility indices by size of local unit; a non-significant difference of the coefficient from 0 ($\mathrm{P}\{H_0\} > 0.05$) is shown by grey font color: 1—One employee, 3—2-4 employees, 7—5-9 employees, 30—10-49 employees, 70—50-99 employees, 150—100-249 employees, 300—250-499 employees, 500+—500 and over

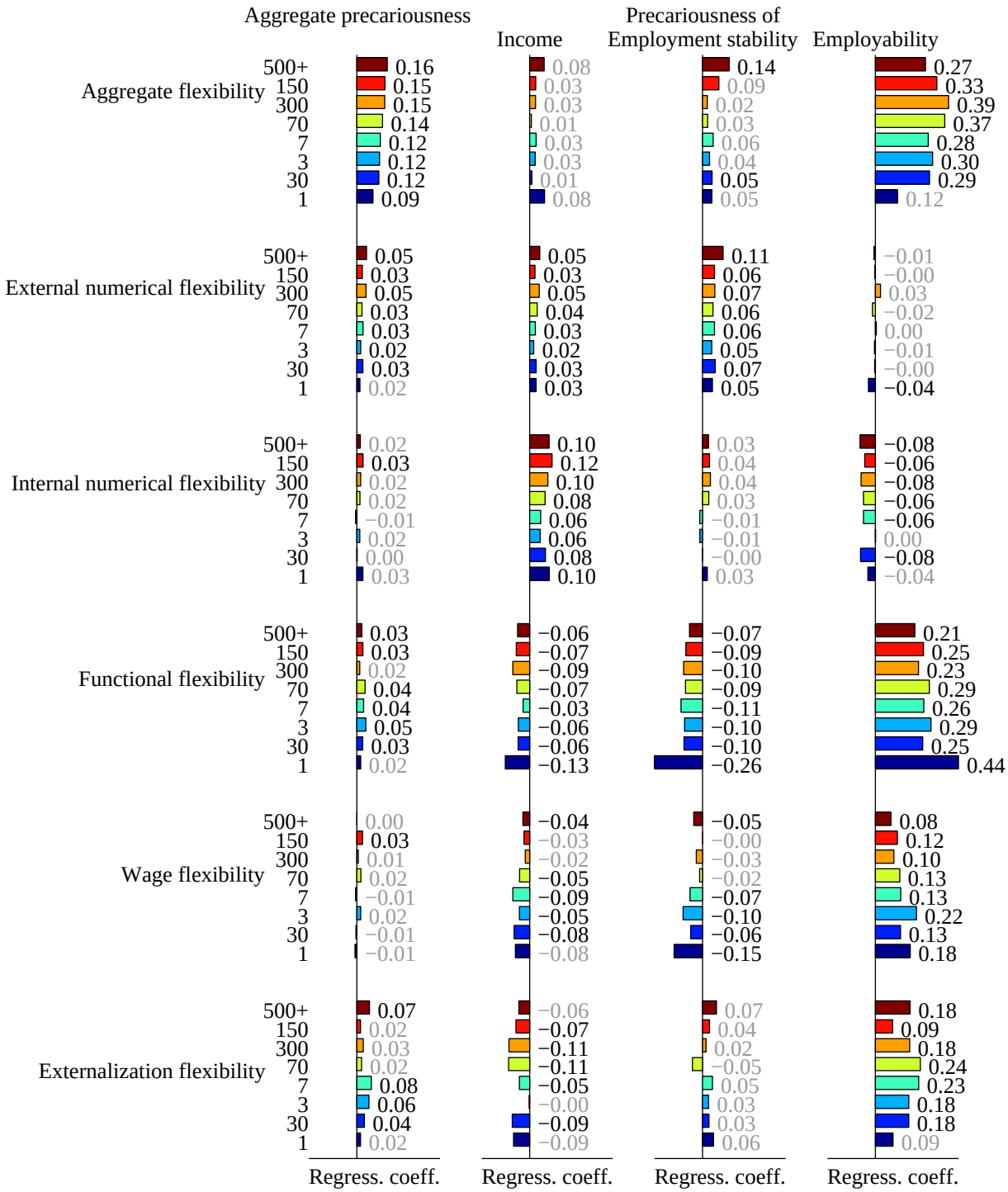


Figure 9: Regression coefficients for normalized (HBS methodology) dependence of aggregate and partial indices of work precariousness from aggregate and partial flexibility indices by company status; a non-significant difference of the coefficient from 0 ($\mathsf{P}\{H_0\} > 0.05$) is shown by grey font color: Prv—Private sector, Pub—Public sector, P-P—Joint private-public organisation or company, NGO—Non-profit sector, NGO, O—Other

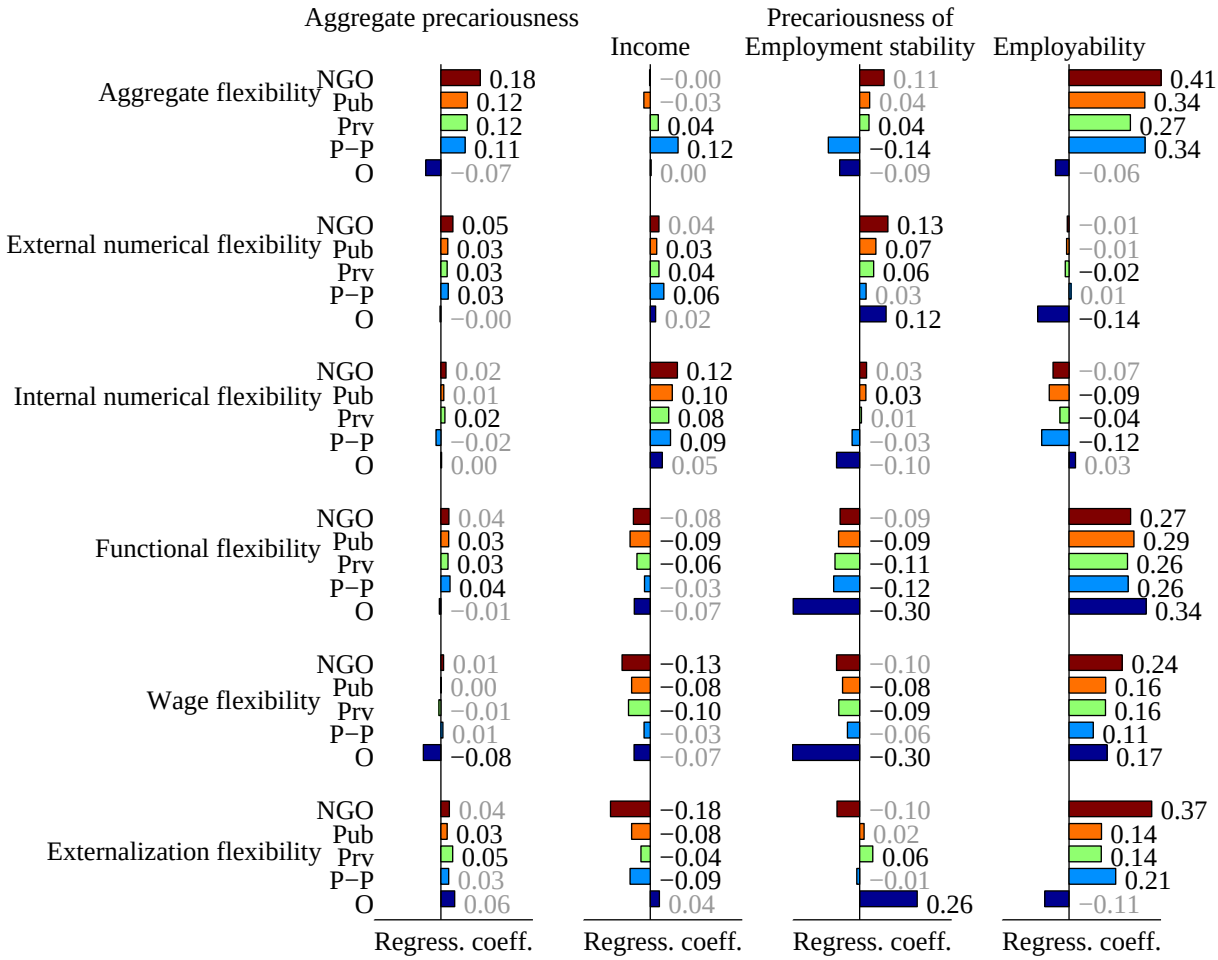


Figure 10: Regression coefficients for normalized (HBS methodology) dependence of aggregate and partial indices of work precariousness from aggregate and partial flexibility indices by gender; a non-significant difference of the coefficient from 0 ($\mathsf{P}\{H_0\} > 0.05$) is shown by grey font color: M—Men, W—Women

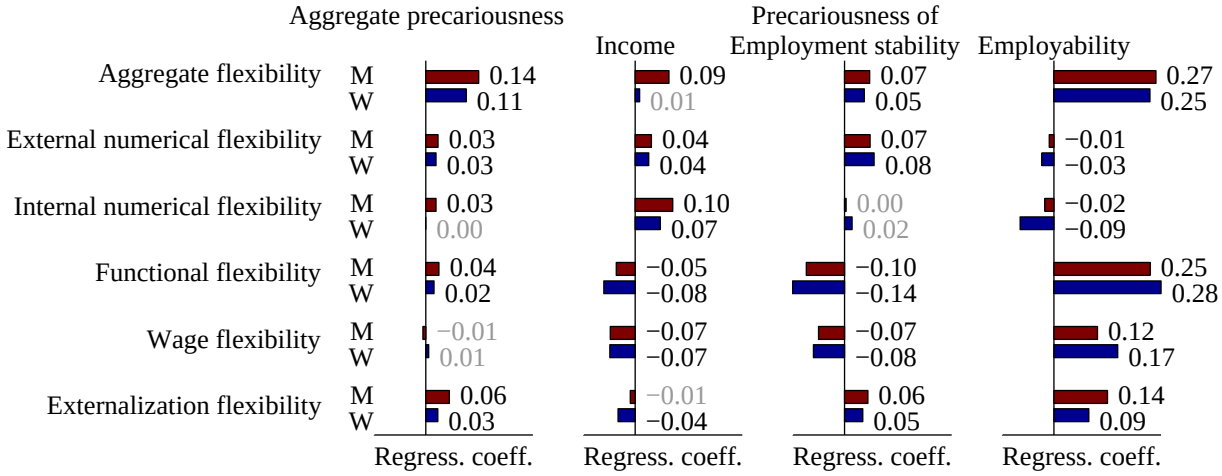


Figure 11: Regression coefficients for normalized (HBS methodology) dependence of aggregate and partial indices of work precariousness from aggregate and partial flexibility indices by type of contract; a non-significant difference of the coefficient from 0 ($\mathsf{P}\{H_0\} > 0.05$) is shown by grey font color: P—Permanently employed, F—Fixed-term employed, T—Temporary employment agency workers, N—Work with no contract

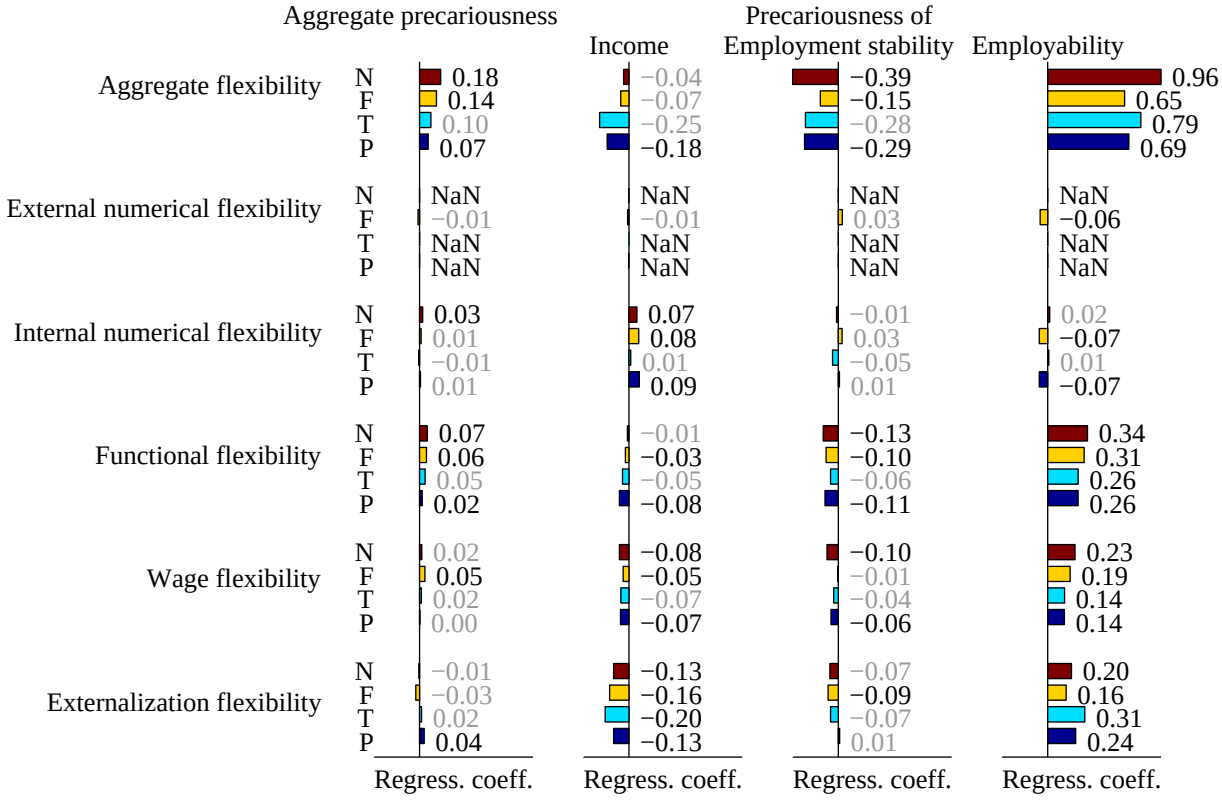


Table 3: Sheet A. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	External numerical flexibility		Internal numerical flexibility	
	q3b (increasing) Type of contract	q3cR (decreasing) Duration of contract	q15a15bR (increasing) Number of working hours	q14e (increasing) Overwork (more than 10 hours a day)
	1: Indefinite 2: Fixed term 3: Temp.empl.agency 4: No contract	1: $\leq$ 1 month 2: 2–3 months 3: 4–6 months 4: 7–12 months 5: 2–3 years 6: 4–5 years 7: $>$ 5 years	1: As one will 2: Not as one will	1: No 2: 1–3 per month 3: 4–8 per month 4: 9–12 per month 5: 13–20 per month 6: $>$ 20 p.month
BE (798) Belgium	1.15 5 / 27 −65 / 27	6.48 9 / 28 −77 / 28	1.08 8 / 9 70 / 9	1.60 12 / 24 −64 / 24
CZ (749) Czech Republic	1.21 7 / 22 −53 / 22	6.20 13 / 19 −46 / 19	1.02 2 / 28 −117 / 28	1.85 17 / 7 59 / 7
DK (865) Denmark	1.33 11 / 13 −25 / 13	6.11 15 / 14 −36 / 14	1.07 7 / 11 35 / 11	1.74 15 / 15 2 / 15
DE (877) Germany	1.21 7 / 21 −53 / 21	6.39 10 / 27 −68 / 27	1.06 6 / 13 4 / 13	1.58 12 / 26 −73 / 26
EE (555) Estonia	1.31 10 / 14 −30 / 14	6.12 15 / 15 −37 / 15	1.03 3 / 25 −82 / 25	1.84 17 / 8 54 / 8
EL (629) Greece	2.08 36 / 4 138 / 4	4.44 43 / 4 152 / 4	1.07 7 / 12 33 / 12	1.76 15 / 13 11 / 13
ES (786) Spain	1.52 17 / 7 14 / 7	5.39 27 / 7 46 / 7	1.09 9 / 6 94 / 6	1.43 9 / 31 −146 / 31
FR (878) France	1.25 8 / 17 −44 / 17	6.16 14 / 17 −41 / 17	1.07 7 / 10 47 / 10	1.44 9 / 30 −143 / 30
IE (768) Ireland	1.90 30 / 5 100 / 5	4.86 36 / 5 105 / 5	1.06 6 / 15 −10 / 15	1.79 16 / 9 27 / 9
IT (691) Italy	1.39 13 / 11 −14 / 11	5.88 19 / 11 −9 / 11	1.09 9 / 5 105 / 5	1.51 10 / 29 −111 / 29
CY (482) Cyprus	2.40 47 / 2 210 / 2	4.10 48 / 2 191 / 2	1.02 2 / 26 −106 / 26	1.64 13 / 23 −46 / 23
LV (903) Latvia	1.22 7 / 19 −50 / 19	6.33 11 / 22 −60 / 22	1.02 2 / 29 −118 / 29	2.01 20 / 3 137 / 3
LT (873) Lithuania	1.28 9 / 15 −38 / 15	6.10 15 / 13 −34 / 13	1.06 6 / 14 −6 / 14	1.76 15 / 12 11 / 12
LU (520) Luxemburg	1.10 3 / 31 −76 / 31	6.53 8 / 30 −82 / 30	1.05 5 / 16 −20 / 16	1.52 10 / 27 −105 / 27
HU (810) Hungary	1.26 9 / 16 −41 / 16	6.26 12 / 20 −52 / 20	1.05 5 / 20 −42 / 20	1.76 15 / 11 12 / 11
MT (507) Malta	2.30 43 / 3 187 / 3	4.19 47 / 3 180 / 3	1.05 5 / 17 −25 / 17	1.67 13 / 17 −32 / 17

Table 3: Sheet B. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	External numerical flexibility		Internal numerical flexibility	
	q3b (increasing) Type of contract	q3cR (decreasing) Duration of contract	q15a15bR (increasing) Number of working hours	q14e (increasing) Overwork (more than 10 hours a day)
	1: Indefinite 2: Fixed term 3: Temp.empl.agency 4: No contract	1: $\leq$ 1 month 2: 2–3 months 3: 4–6 months 4: 7–12 months 5: 2–3 years 6: 4–5 years 7: $>$ 5 years	1: As one will 2: Not as one will	1: No 2: 1–3 per month 3: 4–8 per month 4: 9–12 per month 5: 13–20 per month 6: $>$ 20 p.month
NL (877) Netherlands	1.20 7 / 23 −54 / 23	6.36 11 / 25 −64 / 25	1.14 14 / 1 253 / 1	1.65 13 / 22 −42 / 22
AT (842) Austria	1.36 12 / 12 −21 / 12	5.81 20 / 10 −2 / 10	1.04 4 / 22 −63 / 22	1.59 12 / 25 −69 / 25
PL (793) Poland	1.40 13 / 10 −10 / 10	5.88 19 / 12 −10 / 12	1.11 11 / 2 171 / 2	1.66 13 / 21 −38 / 21
PT (788) Portugal	1.46 15 / 8 3 / 8	5.63 23 / 8 19 / 8	1.05 5 / 19 −34 / 19	1.51 10 / 28 −108 / 28
SI (500) Slovenia	1.19 6 / 25 −56 / 25	6.36 11 / 24 −63 / 24	1.01 1 / 31 −153 / 31	1.92 18 / 4 93 / 4
SK (860) Slovakia	1.19 6 / 26 −58 / 26	6.35 11 / 23 −63 / 23	1.02 2 / 27 −115 / 27	1.91 18 / 5 85 / 5
FI (911) Finland	1.22 7 / 20 −51 / 20	6.20 13 / 18 −45 / 18	1.04 4 / 21 −54 / 21	1.76 15 / 14 11 / 14
SE (951) Sweden	1.14 5 / 29 −69 / 29	6.33 11 / 21 −60 / 21	1.09 9 / 8 80 / 8	1.88 18 / 6 70 / 6
UK (876) United Kingdom	1.65 22 / 6 43 / 6	5.18 30 / 6 69 / 6	1.09 9 / 7 93 / 7	1.69 14 / 16 −19 / 16
BG (954) Bulgaria	1.41 14 / 9 −9 / 9	5.67 22 / 9 14 / 9	1.05 5 / 18 −27 / 18	1.76 15 / 10 12 / 10
HR (816) Croatia	1.23 8 / 18 −48 / 18	6.12 15 / 16 −37 / 16	1.01 1 / 30 −138 / 30	1.66 13 / 20 −37 / 20
RO (798) Romania	1.19 6 / 24 −56 / 24	6.37 10 / 26 −65 / 26	1.03 3 / 24 −77 / 24	2.08 22 / 2 169 / 2
TR (454) Turkey	3.11 70 / 1 364 / 1	2.70 72 / 1 347 / 1	1.04 4 / 23 −74 / 23	2.45 29 / 1 350 / 1
NO (846) Norway	1.12 4 / 30 −72 / 30	6.52 8 / 29 −82 / 29	1.10 10 / 4 135 / 4	1.66 13 / 18 −35 / 18
CH (831) Switzerland	1.15 5 / 28 −65 / 28	6.57 7 / 31 −87 / 31	1.10 10 / 3 140 / 3	1.66 13 / 19 −36 / 19

Table 3: Sheet C. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Internal numerical flexibility			
	q16aa (decreasing) Number of working hours a day	q16ab (decreasing) Number of working days a week	q16ac (decreasing) Starting and finishing time	q17a (decreasing) Working time arrangements
	1: Variable 2: Constant	1: Variable 2: Constant	1: Variable 2: Constant	1: Set by the company 2: Several options 3: Reasonable adaptability 4: Full adaptability
BE (798) Belgium	1.46 54 / 27 −100 / 27	1.20 80 / 12 23 / 12	1.35 65 / 22 −65 / 22	1.79 74 / 24 −57 / 24
CZ (749) Czech Republic	1.37 63 / 19 −23 / 19	1.27 73 / 25 −86 / 25	1.25 75 / 9 58 / 9	1.40 87 / 13 59 / 13
DK (865) Denmark	1.63 37 / 31 −252 / 31	1.28 72 / 27 −96 / 27	1.38 62 / 26 −97 / 26	2.14 62 / 28 −165 / 28
DE (877) Germany	1.38 62 / 20 −27 / 20	1.23 77 / 17 −19 / 17	1.29 71 / 13 13 / 13	1.69 77 / 19 −28 / 19
EE (555) Estonia	1.41 59 / 22 −52 / 22	1.36 64 / 31 −211 / 31	1.37 63 / 25 −82 / 25	1.61 80 / 18 −4 / 18
EL (629) Greece	1.25 75 / 7 85 / 7	1.14 86 / 3 127 / 3	1.25 75 / 10 52 / 10	1.31 90 / 7 89 / 7
ES (786) Spain	1.23 77 / 6 104 / 6	1.15 85 / 6 101 / 6	1.21 79 / 7 104 / 7	1.33 89 / 9 81 / 9
FR (878) France	1.38 62 / 21 −28 / 21	1.22 78 / 15 −8 / 15	1.31 69 / 18 −13 / 18	1.71 76 / 21 −35 / 21
IE (768) Ireland	1.29 71 / 10 55 / 10	1.16 84 / 7 95 / 7	1.30 70 / 16 1 / 16	1.72 76 / 22 −36 / 22
IT (691) Italy	1.31 69 / 12 32 / 12	1.20 80 / 11 23 / 11	1.37 63 / 24 −81 / 24	1.58 81 / 16 5 / 16
CY (482) Cyprus	1.16 84 / 1 168 / 1	1.08 92 / 1 208 / 1	1.14 86 / 1 180 / 1	1.27 91 / 2 101 / 2
LV (903) Latvia	1.36 64 / 18 −12 / 18	1.25 75 / 22 −51 / 22	1.28 72 / 12 20 / 12	1.41 86 / 14 58 / 14
LT (873) Lithuania	1.33 67 / 15 14 / 15	1.28 72 / 28 −98 / 28	1.32 68 / 19 −23 / 19	1.31 90 / 8 87 / 8
LU (520) Luxemburg	1.32 68 / 14 21 / 14	1.14 86 / 5 119 / 5	1.29 71 / 14 12 / 14	1.76 75 / 23 −48 / 23
HU (810) Hungary	1.28 72 / 9 61 / 9	1.23 77 / 18 −21 / 18	1.22 78 / 8 95 / 8	1.27 91 / 3 101 / 3
MT (507) Malta	1.21 79 / 4 129 / 4	1.16 84 / 8 93 / 8	1.18 82 / 4 131 / 4	1.29 90 / 6 92 / 6

Table 3: Sheet D. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Internal numerical flexibility			
	q16aa (decreasing) Number of working hours a day	q16ab (decreasing) Number of working days a week	q16ac (decreasing) Starting and finishing time	q17a (decreasing) Working time arrangements
	1: Variable 2: Constant	1: Variable 2: Constant	1: Variable 2: Constant	1: Set by the company 2: Several options 3: Reasonable adaptability 4: Full adaptability
NL (877) Netherlands	1.47 53 / 28 −114 / 28	1.25 75 / 21 −46 / 21	1.42 58 / 29 −136 / 29	2.18 61 / 29 −177 / 29
AT (842) Austria	1.45 55 / 25 −88 / 25	1.26 74 / 23 −57 / 23	1.39 61 / 27 −101 / 27	1.80 73 / 26 −60 / 26
PL (793) Poland	1.30 70 / 11 44 / 11	1.24 76 / 19 −39 / 19	1.19 81 / 5 125 / 5	1.37 88 / 12 69 / 12
PT (788) Portugal	1.17 83 / 2 157 / 2	1.10 90 / 2 177 / 2	1.16 84 / 2 155 / 2	1.27 91 / 5 98 / 5
SI (500) Slovenia	1.42 58 / 24 −64 / 24	1.26 74 / 24 −63 / 24	1.36 64 / 23 −71 / 23	1.58 81 / 17 4 / 17
SK (860) Slovakia	1.34 66 / 16 3 / 16	1.28 72 / 26 −94 / 26	1.27 73 / 11 29 / 11	1.34 89 / 10 78 / 10
FI (911) Finland	1.45 55 / 26 −91 / 26	1.25 75 / 20 −45 / 20	1.43 57 / 30 −153 / 30	1.91 70 / 27 −96 / 27
SE (951) Sweden	1.52 48 / 30 −159 / 30	1.28 72 / 29 −102 / 29	1.41 59 / 28 −124 / 28	2.42 53 / 31 −251 / 31
UK (876) United Kingdom	1.36 64 / 17 −11 / 17	1.21 79 / 13 7 / 13	1.34 66 / 21 −50 / 21	1.70 77 / 20 −30 / 20
BG (954) Bulgaria	1.23 77 / 5 108 / 5	1.19 81 / 10 50 / 10	1.18 82 / 3 138 / 3	1.16 95 / 1 133 / 1
HR (816) Croatia	1.26 74 / 8 83 / 8	1.16 84 / 9 86 / 9	1.19 81 / 6 124 / 6	1.36 88 / 11 73 / 11
RO (798) Romania	1.32 68 / 13 21 / 13	1.22 78 / 14 −1 / 14	1.32 68 / 20 −25 / 20	1.27 91 / 4 99 / 4
TR (454) Turkey	1.19 81 / 3 142 / 3	1.14 86 / 4 125 / 4	1.31 69 / 17 −9 / 17	1.53 82 / 15 21 / 15
NO (846) Norway	1.41 59 / 23 −57 / 23	1.34 66 / 30 −185 / 30	1.29 71 / 15 6 / 15	1.79 74 / 25 −57 / 25
CH (831) Switzerland	1.51 49 / 29 −150 / 29	1.23 77 / 16 −12 / 16	1.48 52 / 31 −213 / 31	2.27 58 / 30 −203 / 30

Table 3: Sheet E. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Internal numerical flexibility	Functional flexibility		
	q17bR (decreasing) Working time planning	q22a (decreasing) Switching to unforeseen tasks	q23c (decreasing) Solving unforeseen problems by oneself	q23f (decreasing) Learning new things
	1: On the same day 2: The day before 3: Several days in advance 4: Several weeks in advance 5: No changes of schedule	1: Very often 2: Fairly often 3: Occasionally 4: Never	1: Yes 2: No	1: Yes 2: No
BE (798) Belgium	4.30 17 / 19 −27 / 19	2.47 51 / 7 98 / 7	1.12 88 / 6 101 / 6	1.23 77 / 8 46 / 8
CZ (749) Czech Republic	4.16 21 / 10 37 / 10	3.00 33 / 24 −90 / 24	1.24 76 / 24 −51 / 24	1.34 66 / 23 −62 / 23
DK (865) Denmark	3.81 30 / 2 192 / 2	2.23 59 / 1 186 / 1	1.05 95 / 2 180 / 2	1.11 89 / 3 173 / 3
DE (877) Germany	3.92 27 / 3 143 / 3	2.90 37 / 21 −54 / 21	1.24 76 / 23 −48 / 23	1.37 63 / 25 −87 / 25
EE (555) Estonia	4.20 20 / 12 19 / 12	3.07 31 / 27 −112 / 27	1.17 83 / 9 39 / 9	1.26 74 / 13 19 / 13
EL (629) Greece	4.24 19 / 13 1 / 13	2.69 44 / 12 21 / 12	1.31 69 / 28 −131 / 28	1.37 63 / 26 −87 / 26
ES (786) Spain	4.41 15 / 25 −74 / 25	3.08 31 / 28 −118 / 28	1.23 77 / 20 −32 / 20	1.41 59 / 28 −123 / 28
FR (878) France	4.07 23 / 6 78 / 6	2.70 43 / 13 18 / 13	1.17 83 / 10 36 / 10	1.32 68 / 18 −35 / 18
IE (768) Ireland	4.18 21 / 11 28 / 11	2.52 49 / 9 82 / 9	1.24 76 / 21 −42 / 21	1.24 76 / 9 45 / 9
IT (691) Italy	4.53 12 / 29 −131 / 29	2.86 38 / 19 −39 / 19	1.27 73 / 26 −78 / 26	1.31 69 / 17 −32 / 17
CY (482) Cyprus	4.46 13 / 28 −98 / 28	2.77 41 / 16 −8 / 16	1.32 68 / 30 −141 / 30	1.37 63 / 27 −91 / 27
LV (903) Latvia	4.26 18 / 14 −9 / 14	3.13 29 / 30 −134 / 30	1.30 70 / 27 −123 / 27	1.32 68 / 19 −39 / 19
LT (873) Lithuania	4.34 16 / 21 −46 / 21	3.06 31 / 26 −110 / 26	1.37 63 / 31 −197 / 31	1.46 54 / 31 −179 / 31
LU (520) Luxemburg	4.03 24 / 5 95 / 5	2.62 46 / 10 47 / 10	1.15 85 / 8 59 / 8	1.25 75 / 10 33 / 10
HU (810) Hungary	4.26 18 / 15 −11 / 15	3.00 33 / 23 −89 / 23	1.21 79 / 15 −11 / 15	1.43 57 / 30 −146 / 30
MT (507) Malta	4.66 9 / 31 −188 / 31	2.62 46 / 11 45 / 11	1.14 86 / 7 74 / 7	1.25 75 / 11 32 / 11

Table 3: Sheet F. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Internal numerical flexibility	Functional flexibility		
	q17bR (decreasing) Working time planning	q22a (decreasing) Switching to unforeseen tasks	q23c (decreasing) Solving unforeseen problems by oneself	q23f (decreasing) Learning new things
	1: On the same day 2: The day before 3: Several days in advance 4: Several weeks in advance 5: No changes of schedule	1: Very often 2: Fairly often 3: Occasionally 4: Never	1: Yes 2: No	1: Yes 2: No
NL (877) Netherlands	4.43 14 / 27 −84 / 27	2.35 55 / 5 143 / 5	1.06 94 / 3 172 / 3	1.17 83 / 6 111 / 6
AT (842) Austria	4.35 16 / 22 −47 / 22	2.86 38 / 18 −38 / 18	1.23 77 / 19 −30 / 19	1.28 72 / 14 2 / 14
PL (793) Poland	4.27 18 / 17 −15 / 17	2.90 37 / 20 −54 / 20	1.21 79 / 13 −8 / 13	1.33 67 / 22 −48 / 22
PT (788) Portugal	4.31 17 / 20 −30 / 20	2.81 40 / 17 −21 / 17	1.21 79 / 14 −11 / 14	1.32 68 / 20 −41 / 20
SI (500) Slovenia	4.27 18 / 16 −14 / 16	2.72 43 / 14 10 / 14	1.18 82 / 11 32 / 11	1.17 83 / 7 108 / 7
SK (860) Slovakia	4.11 22 / 7 58 / 7	3.01 33 / 25 −91 / 25	1.26 74 / 25 −71 / 25	1.32 68 / 21 −42 / 21
FI (911) Finland	3.59 35 / 1 294 / 1	2.30 57 / 2 159 / 2	1.21 79 / 16 −13 / 16	1.10 90 / 1 178 / 1
SE (951) Sweden	4.15 21 / 9 41 / 9	2.33 56 / 3 151 / 3	1.04 96 / 1 201 / 1	1.10 90 / 2 177 / 2
UK (876) United Kingdom	4.29 18 / 18 −20 / 18	2.48 51 / 8 97 / 8	1.22 78 / 17 −19 / 17	1.29 71 / 15 −13 / 15
BG (954) Bulgaria	4.58 11 / 30 −151 / 30	3.12 29 / 29 −129 / 29	1.31 69 / 29 −135 / 29	1.42 58 / 29 −137 / 29
HR (816) Croatia	4.38 16 / 24 −62 / 24	2.76 41 / 15 −3 / 15	1.18 82 / 12 27 / 12	1.26 74 / 12 22 / 12
RO (798) Romania	3.98 25 / 4 117 / 4	2.97 34 / 22 −76 / 22	1.24 76 / 22 −45 / 22	1.31 69 / 16 −25 / 16
TR (454) Turkey	4.42 14 / 26 −81 / 26	3.16 28 / 31 −146 / 31	1.22 78 / 18 −22 / 18	1.35 65 / 24 −65 / 24
NO (846) Norway	4.37 16 / 23 −59 / 23	2.34 55 / 4 146 / 4	1.07 93 / 4 159 / 4	1.13 87 / 5 147 / 5
CH (831) Switzerland	4.15 21 / 8 42 / 8	2.46 51 / 6 104 / 6	1.10 90 / 5 128 / 5	1.12 88 / 4 160 / 4

Table 3: Sheet G. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Functional flexibility			
	q26a (decreasing) Rotation of tasks between colleagues	q26a1R (decreasing) Necessity of different skills in rotating tasks	q26a2R (decreasing) Decisions on rotation of tasks	q27R (decreasing) Necessity of further training
	1: Yes 2: No	1: Yes 2: No	1: By boss 2: By boss and team 3: By team	1: Yes 2: No
BE (798) Belgium	1.49 51 / 12 20 / 12	1.48 52 / 13 18 / 13	1.44 78 / 22 −35 / 22	1.88 12 / 18 −15 / 18
CZ (749) Czech Republic	1.57 43 / 25 −55 / 25	1.52 48 / 21 −16 / 21	1.33 84 / 14 36 / 14	1.89 11 / 22 −50 / 22
DK (865) Denmark	1.27 73 / 2 224 / 2	1.27 73 / 2 223 / 2	1.82 59 / 31 −279 / 31	1.86 14 / 10 30 / 10
DE (877) Germany	1.46 54 / 10 43 / 10	1.46 54 / 10 41 / 10	1.47 76 / 25 −56 / 25	1.80 20 / 3 147 / 3
EE (555) Estonia	1.54 46 / 22 −28 / 22	1.53 47 / 23 −29 / 23	1.34 83 / 15 29 / 15	1.83 17 / 5 90 / 5
EL (629) Greece	1.40 60 / 4 96 / 4	1.40 60 / 4 98 / 4	1.31 84 / 12 47 / 12	1.86 14 / 13 15 / 13
ES (786) Spain	1.71 29 / 30 −188 / 30	1.71 29 / 30 −193 / 30	1.17 91 / 1 137 / 1	1.94 6 / 29 −141 / 29
FR (878) France	1.64 36 / 27 −122 / 27	1.62 38 / 27 −114 / 27	1.35 83 / 16 24 / 16	1.91 9 / 26 −78 / 26
IE (768) Ireland	1.52 48 / 20 −10 / 20	1.52 48 / 20 −15 / 20	1.44 78 / 21 −32 / 21	1.90 10 / 23 −57 / 23
IT (691) Italy	1.62 38 / 26 −105 / 26	1.62 38 / 26 −111 / 26	1.27 87 / 6 76 / 6	1.86 14 / 12 19 / 12
CY (482) Cyprus	1.47 53 / 11 34 / 11	1.47 53 / 11 30 / 11	1.22 89 / 4 109 / 4	1.93 7 / 27 −122 / 27
LV (903) Latvia	1.46 54 / 8 47 / 8	1.45 55 / 8 51 / 8	1.36 82 / 17 18 / 17	1.87 13 / 15 3 / 15
LT (873) Lithuania	1.65 35 / 28 −129 / 28	1.64 36 / 28 −126 / 28	1.27 86 / 8 71 / 8	1.79 21 / 2 172 / 2
LU (520) Luxemburg	1.56 44 / 24 −47 / 24	1.55 45 / 25 −49 / 25	1.41 80 / 19 −14 / 19	1.86 14 / 11 27 / 11
HU (810) Hungary	1.71 29 / 31 −191 / 31	1.71 29 / 31 −193 / 31	1.17 91 / 2 136 / 2	1.87 13 / 16 −7 / 16
MT (507) Malta	1.51 49 / 17 −4 / 17	1.51 49 / 18 −6 / 18	1.32 84 / 13 44 / 13	1.89 11 / 21 −33 / 21

Table 3: Sheet H. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Functional flexibility			
	q26a (decreasing) Rotation of tasks between colleagues	q26a1R (decreasing) Necessity of different skills in rotating tasks	q26a2R (decreasing) Decisions on rotation of tasks	q27R (decreasing) Necessity of further training
	1: Yes 2: No	1: Yes 2: No	1: By boss 2: By boss and team 3: By team	1: Yes 2: No
NL (877) Netherlands	1.37 63 / 3 133 / 3	1.36 64 / 3 132 / 3	1.69 65 / 29 −194 / 29	1.90 10 / 25 −65 / 25
AT (842) Austria	1.50 50 / 16 9 / 16	1.49 51 / 16 8 / 16	1.47 76 / 23 −54 / 23	1.72 28 / 1 307 / 1
PL (793) Poland	1.50 50 / 14 12 / 14	1.49 51 / 14 14 / 14	1.27 86 / 7 73 / 7	1.85 15 / 9 37 / 9
PT (788) Portugal	1.68 32 / 29 −162 / 29	1.68 32 / 29 −168 / 29	1.20 90 / 3 121 / 3	1.90 10 / 24 −59 / 24
SI (500) Slovenia	1.26 74 / 1 234 / 1	1.26 74 / 1 233 / 1	1.43 79 / 20 −25 / 20	1.88 12 / 19 −16 / 19
SK (860) Slovakia	1.49 51 / 13 20 / 13	1.48 52 / 12 21 / 12	1.25 87 / 5 85 / 5	1.88 12 / 20 −30 / 20
FI (911) Finland	1.52 48 / 19 −7 / 19	1.51 49 / 19 −9 / 19	1.51 75 / 27 −76 / 27	1.86 14 / 14 12 / 14
SE (951) Sweden	1.46 54 / 9 45 / 9	1.46 54 / 9 42 / 9	1.70 65 / 30 −198 / 30	1.94 6 / 30 −149 / 30
UK (876) United Kingdom	1.50 50 / 15 11 / 15	1.49 51 / 15 10 / 15	1.47 76 / 24 −54 / 24	1.93 7 / 28 −124 / 28
BG (954) Bulgaria	1.43 57 / 5 72 / 5	1.43 57 / 5 72 / 5	1.29 86 / 11 62 / 11	1.95 5 / 31 −160 / 31
HR (816) Croatia	1.45 55 / 6 55 / 6	1.44 56 / 7 54 / 7	1.37 82 / 18 13 / 18	1.87 13 / 17 −9 / 17
RO (798) Romania	1.51 49 / 18 −5 / 18	1.51 49 / 17 −6 / 17	1.28 86 / 9 70 / 9	1.85 15 / 6 48 / 6
TR (454) Turkey	1.55 45 / 23 −42 / 23	1.55 45 / 24 −46 / 24	1.29 86 / 10 64 / 10	1.85 15 / 7 40 / 7
NO (846) Norway	1.45 55 / 7 54 / 7	1.44 56 / 6 55 / 6	1.58 71 / 28 −124 / 28	1.85 15 / 8 37 / 8
CH (831) Switzerland	1.52 48 / 21 −13 / 21	1.52 48 / 22 −19 / 22	1.50 75 / 26 −73 / 26	1.81 19 / 4 132 / 4

Table 3: Sheet I. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Wage flexibility			
	q21c (decreasing) Dependence on performance targets	ef6a (decreasing) Basic fixed salary	ef6b (decreasing) Productivity payment	ef6f (decreasing) Other extra payments
	1: Yes 2: No	1: Yes 2: No	1: Yes 2: No	1: Yes 2: No
BE (798) Belgium	1.42 58 / 1 189 / 1	1.04 96 / 18 29 / 18	1.91 9 / 19 −36 / 19	1.73 27 / 13 21 / 13
CZ (749) Czech Republic	1.66 34 / 21 −55 / 21	1.02 98 / 12 60 / 12	1.79 21 / 5 113 / 5	1.67 33 / 8 79 / 8
DK (865) Denmark	1.69 31 / 25 −80 / 25	1.01 99 / 1 93 / 1	1.90 10 / 16 −22 / 16	1.74 26 / 14 16 / 14
DE (877) Germany	1.57 43 / 10 37 / 10	1.02 98 / 9 65 / 9	1.91 9 / 18 −35 / 18	1.73 27 / 12 24 / 12
EE (555) Estonia	1.63 37 / 19 −21 / 19	1.20 80 / 31 −275 / 31	1.74 26 / 3 186 / 3	1.72 28 / 10 37 / 10
EL (629) Greece	1.58 42 / 11 29 / 11	1.06 94 / 23 −1 / 23	1.92 8 / 21 −55 / 21	1.66 34 / 6 89 / 6
ES (786) Spain	1.76 24 / 30 −146 / 30	1.02 98 / 6 71 / 6	1.87 13 / 11 13 / 11	1.63 37 / 5 117 / 5
FR (878) France	1.48 52 / 4 125 / 4	1.03 97 / 15 44 / 15	1.95 5 / 26 −88 / 26	1.59 41 / 3 151 / 3
IE (768) Ireland	1.72 28 / 27 −115 / 27	1.05 95 / 21 10 / 21	1.94 6 / 24 −77 / 24	1.81 19 / 20 −53 / 20
IT (691) Italy	1.60 40 / 13 5 / 13	1.12 88 / 27 −119 / 27	1.72 28 / 2 215 / 2	1.80 20 / 19 −36 / 19
CY (482) Cyprus	1.60 40 / 12 9 / 12	1.02 98 / 3 76 / 3	1.97 3 / 29 −113 / 29	1.90 10 / 30 −128 / 30
LV (903) Latvia	1.63 37 / 17 −16 / 17	1.11 89 / 26 −115 / 26	1.85 15 / 9 45 / 9	1.75 25 / 15 2 / 15
LT (873) Lithuania	1.71 29 / 26 −97 / 26	1.17 83 / 30 −228 / 30	1.78 22 / 4 131 / 4	1.82 18 / 22 −61 / 22
LU (520) Luxemburg	1.49 51 / 6 121 / 6	1.03 97 / 14 54 / 14	1.94 6 / 23 −75 / 23	1.49 51 / 1 245 / 1
HU (810) Hungary	1.67 33 / 22 −60 / 22	1.06 94 / 24 −6 / 24	1.89 11 / 13 −11 / 13	1.85 15 / 24 −87 / 24
MT (507) Malta	1.74 26 / 28 −126 / 28	1.04 96 / 16 35 / 16	1.92 8 / 20 −48 / 20	1.82 18 / 21 −58 / 21

Table 3: Sheet J. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Wage flexibility			
	q21c (decreasing) Dependence on performance targets	ef6a (decreasing) Basic fixed salary	ef6b (decreasing) Productivity payment	ef6f (decreasing) Other extra payments
	1: Yes 2: No	1: Yes 2: No	1: Yes 2: No	1: Yes 2: No
NL (877) Netherlands	1.53 47 / 9 82 / 9	1.01 99 / 2 90 / 2	1.99 1 / 31 −138 / 31	1.79 21 / 18 −29 / 18
AT (842) Austria	1.50 50 / 7 111 / 7	1.02 98 / 4 75 / 4	1.89 11 / 14 −16 / 14	1.69 31 / 9 62 / 9
PL (793) Poland	1.65 35 / 20 −36 / 20	1.04 96 / 19 21 / 19	1.90 10 / 17 −24 / 17	1.73 27 / 11 24 / 11
PT (788) Portugal	1.51 49 / 8 97 / 8	1.02 98 / 7 71 / 7	1.89 11 / 12 −5 / 12	1.91 9 / 31 −137 / 31
SI (500) Slovenia	1.78 22 / 31 −171 / 31	1.04 96 / 17 34 / 17	1.82 18 / 7 78 / 7	1.77 23 / 16 −12 / 16
SK (860) Slovakia	1.68 32 / 23 −73 / 23	1.02 98 / 11 60 / 11	1.68 32 / 1 258 / 1	1.67 33 / 7 80 / 7
FI (911) Finland	1.46 54 / 3 149 / 3	1.06 94 / 22 −0 / 22	1.82 18 / 6 80 / 6	1.56 44 / 2 177 / 2
SE (951) Sweden	1.62 38 / 16 −13 / 16	1.03 97 / 13 59 / 13	1.95 5 / 25 −84 / 25	1.87 13 / 25 −101 / 25
UK (876) United Kingdom	1.61 39 / 14 −4 / 14	1.05 95 / 20 12 / 20	1.95 5 / 27 −91 / 27	1.89 11 / 28 −124 / 28
BG (954) Bulgaria	1.69 31 / 24 −77 / 24	1.12 88 / 28 −125 / 28	1.87 13 / 10 20 / 10	1.78 22 / 17 −23 / 17
HR (816) Croatia	1.75 25 / 29 −139 / 29	1.02 98 / 5 74 / 5	1.92 8 / 22 −56 / 22	1.87 13 / 26 −105 / 26
RO (798) Romania	1.48 52 / 5 125 / 5	1.09 91 / 25 −71 / 25	1.83 17 / 8 71 / 8	1.61 39 / 4 138 / 4
TR (454) Turkey	1.62 38 / 15 −9 / 15	1.17 83 / 29 −220 / 29	1.90 10 / 15 −20 / 15	1.89 11 / 29 −127 / 29
NO (846) Norway	1.63 37 / 18 −18 / 18	1.02 98 / 10 61 / 10	1.96 4 / 28 −96 / 28	1.84 16 / 23 −75 / 23
CH (831) Switzerland	1.43 57 / 2 175 / 2	1.02 98 / 8 68 / 8	1.97 3 / 30 −120 / 30	1.87 13 / 27 −107 / 27

Table 3: Sheet K. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Wage flexibility			Externalization flexibility
	ef6g (decreasing) Payments dependent on the overall firm performance	ef6h (decreasing) Payments dependent on the overall group/team performance	ef6i (decreasing) Income from shares of the company	q3b5 (decreasing) Work with no working contract
	1: Yes 2: No	1: Yes 2: No	1: Yes 2: No	1: No contract 2: With contract
BE (798) Belgium	1.94 6 / 17 −42 / 17	1.97 3 / 18 −48 / 18	1.96 4 / 3 170 / 3	1.97 3 / 23 −50 / 23
CZ (749) Czech Republic	1.89 11 / 8 53 / 8	1.93 7 / 7 56 / 7	1.98 2 / 15 −15 / 15	1.98 2 / 27 −60 / 27
DK (865) Denmark	1.93 7 / 14 −27 / 14	1.96 4 / 15 −32 / 15	1.97 3 / 6 44 / 6	1.92 8 / 11 −18 / 11
DE (877) Germany	1.94 6 / 18 −44 / 18	1.98 2 / 23 −60 / 23	1.99 1 / 28 −85 / 28	1.97 3 / 21 −49 / 21
EE (555) Estonia	1.89 11 / 9 45 / 9	1.91 9 / 4 97 / 4	1.98 2 / 9 18 / 9	1.93 7 / 12 −27 / 12
EL (629) Greece	1.97 3 / 28 −92 / 28	1.97 3 / 20 −55 / 20	1.99 1 / 23 −70 / 23	1.68 32 / 4 141 / 4
ES (786) Spain	1.93 7 / 15 −28 / 15	1.97 3 / 19 −55 / 19	1.99 1 / 31 −102 / 31	1.91 9 / 10 −14 / 10
FR (878) France	1.86 14 / 6 96 / 6	1.92 8 / 6 62 / 6	1.94 6 / 1 297 / 1	1.95 5 / 16 −40 / 16
IE (768) Ireland	1.90 10 / 10 26 / 10	1.94 6 / 9 28 / 9	1.94 6 / 2 268 / 2	1.75 25 / 5 93 / 5
IT (691) Italy	1.96 4 / 25 −76 / 25	1.97 3 / 17 −47 / 17	1.98 2 / 16 −29 / 16	1.91 9 / 8 −9 / 8
CY (482) Cyprus	1.97 3 / 29 −96 / 29	2.00 0 / 31 −110 / 31	1.99 1 / 20 −49 / 20	1.58 42 / 2 205 / 2
LV (903) Latvia	1.91 9 / 11 15 / 11	1.95 5 / 13 −8 / 13	1.99 1 / 29 −88 / 29	1.96 4 / 19 −46 / 19
LT (873) Lithuania	1.96 4 / 24 −68 / 24	1.97 3 / 16 −37 / 16	1.99 1 / 24 −71 / 24	1.95 5 / 15 −36 / 15
LU (520) Luxemburg	1.86 14 / 4 107 / 4	1.92 8 / 5 74 / 5	1.96 4 / 4 157 / 4	1.99 1 / 31 −67 / 31
HU (810) Hungary	1.97 3 / 27 −91 / 27	1.98 2 / 28 −78 / 28	1.99 1 / 22 −68 / 22	1.96 4 / 18 −46 / 18
MT (507) Malta	1.96 4 / 26 −78 / 26	1.98 2 / 27 −74 / 27	1.99 1 / 30 −97 / 30	1.59 41 / 3 198 / 3

Table 3: Sheet L. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Wage flexibility			Externalization flexibility
	ef6g (decreasing) Payments dependent on the overall firm performance	ef6h (decreasing) Payments dependent on the overall group/team performance	ef6i (decreasing) Income from shares of the company	q3b5 (decreasing) Work with no working contract
	1: Yes 2: No	1: Yes 2: No	1: Yes 2: No	1: No contract 2: With contract
NL (877) Netherlands	1.86 14 / 5 101 / 5	1.95 5 / 11 9 / 11	1.98 2 / 17 −30 / 17	1.98 2 / 26 −58 / 26
AT (842) Austria	1.94 6 / 21 −48 / 21	1.99 1 / 30 −90 / 30	1.99 1 / 21 −51 / 21	1.89 11 / 7 −1 / 7
PL (793) Poland	1.95 5 / 22 −52 / 22	1.98 2 / 22 −59 / 22	1.99 1 / 27 −84 / 27	1.94 6 / 13 −32 / 13
PT (788) Portugal	1.98 2 / 31 −109 / 31	1.98 2 / 29 −79 / 29	1.99 1 / 25 −74 / 25	1.91 9 / 9 −12 / 9
SI (500) Slovenia	1.81 19 / 2 192 / 2	1.84 16 / 2 249 / 2	1.97 3 / 5 63 / 5	1.98 2 / 28 −61 / 28
SK (860) Slovakia	1.71 29 / 1 349 / 1	1.80 20 / 1 355 / 1	1.98 2 / 8 30 / 8	1.98 2 / 29 −62 / 29
FI (911) Finland	1.88 12 / 7 67 / 7	1.90 10 / 3 107 / 3	1.99 1 / 26 −77 / 26	1.97 3 / 24 −51 / 24
SE (951) Sweden	1.84 16 / 3 125 / 3	1.95 5 / 10 9 / 10	1.98 2 / 14 −13 / 14	1.99 1 / 30 −65 / 30
UK (876) United Kingdom	1.94 6 / 20 −47 / 20	1.98 2 / 24 −66 / 24	1.98 2 / 11 5 / 11	1.85 15 / 6 29 / 6
BG (954) Bulgaria	1.94 6 / 16 −31 / 16	1.96 4 / 14 −18 / 14	1.98 2 / 12 −8 / 12	1.94 6 / 14 −35 / 14
HR (816) Croatia	1.96 4 / 23 −67 / 23	1.98 2 / 21 −59 / 21	1.99 1 / 18 −38 / 18	1.98 2 / 25 −57 / 25
RO (798) Romania	1.94 6 / 19 −45 / 19	1.98 2 / 26 −67 / 26	1.98 2 / 13 −10 / 13	1.95 5 / 17 −42 / 17
TR (454) Turkey	1.97 3 / 30 −98 / 30	1.98 2 / 25 −67 / 25	1.99 1 / 19 −39 / 19	1.33 67 / 1 371 / 1
NO (846) Norway	1.93 7 / 13 −19 / 13	1.93 7 / 8 54 / 8	1.98 2 / 7 36 / 7	1.97 3 / 22 −50 / 22
CH (831) Switzerland	1.93 7 / 12 −19 / 12	1.95 5 / 12 6 / 12	1.98 2 / 10 10 / 10	1.96 4 / 20 −49 / 20

Table 3: Sheet M. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Externalization flexibility			
	q11g (decreasing) Teleworking from home with a PC	q11h (decreasing) Working at home excluding telework	q11i (decreasing) Working at places other than home or company	q9aR (increasing) Pay job other than the main one
	1: Always 2: Almost always 3: 3/4 of the time 4: Half of the time 5: 1/4 of the time 6: Almost never 7: Never	1: Always 2: Almost always 3: 3/4 of the time 4: Half of the time 5: 1/4 of the time 6: Almost never 7: Never	1: Always 2: Almost always 3: 3/4 of the time 4: Half of the time 5: 1/4 of the time 6: Almost never 7: Never	1: No 2: Occasional 3: Seasonal 4: Regular
BE (798) Belgium	6.48 9 / 4 134 / 4	6.30 12 / 1 237 / 1	5.92 18 / 17 −10 / 17	1.15 5 / 15 −12 / 15
CZ (749) Czech Republic	6.40 10 / 2 188 / 2	6.64 6 / 14 1 / 14	5.80 20 / 11 55 / 11	1.17 6 / 13 14 / 13
DK (865) Denmark	6.48 9 / 5 132 / 5	6.42 10 / 4 151 / 4	5.78 20 / 10 62 / 10	1.28 9 / 2 184 / 2
DE (877) Germany	6.75 4 / 20 −44 / 20	6.79 4 / 27 −102 / 27	5.74 21 / 7 86 / 7	1.11 4 / 21 −70 / 21
EE (555) Estonia	6.68 5 / 14 6 / 14	6.70 5 / 21 −40 / 21	6.14 14 / 28 −122 / 28	1.26 9 / 4 149 / 4
EL (629) Greece	6.73 4 / 19 −29 / 19	6.69 5 / 20 −33 / 20	6.01 17 / 21 −53 / 21	1.19 6 / 9 49 / 9
ES (786) Spain	6.72 5 / 18 −24 / 18	6.62 6 / 12 17 / 12	5.84 19 / 14 33 / 14	1.08 3 / 30 −120 / 30
FR (878) France	6.83 3 / 25 −90 / 25	6.62 6 / 13 12 / 13	5.82 20 / 12 44 / 12	1.08 3 / 29 −113 / 29
IE (768) Ireland	6.78 4 / 22 −62 / 22	6.68 5 / 19 −27 / 19	5.69 22 / 6 108 / 6	1.12 4 / 20 −63 / 20
IT (691) Italy	6.88 2 / 28 −126 / 28	6.72 5 / 25 −55 / 25	6.02 16 / 22 −58 / 22	1.08 3 / 31 −121 / 31
CY (482) Cyprus	6.70 5 / 16 −10 / 16	6.54 8 / 8 66 / 8	6.10 15 / 25 −98 / 25	1.08 3 / 28 −112 / 28
LV (903) Latvia	6.56 7 / 8 81 / 8	6.68 5 / 18 −26 / 18	6.02 16 / 23 −60 / 23	1.28 9 / 3 180 / 3
LT (873) Lithuania	6.78 4 / 23 −62 / 23	6.79 3 / 28 −108 / 28	6.16 14 / 29 −127 / 29	1.18 6 / 11 28 / 11
LU (520) Luxemburg	6.76 4 / 21 −46 / 21	6.65 6 / 16 −8 / 16	5.66 22 / 3 127 / 3	1.10 3 / 25 −91 / 25
HU (810) Hungary	6.84 3 / 26 −102 / 26	6.72 5 / 24 −54 / 24	6.36 11 / 31 −230 / 31	1.16 5 / 14 3 / 14
MT (507) Malta	6.91 2 / 30 −144 / 30	6.87 2 / 29 −158 / 29	5.98 17 / 19 −39 / 19	1.23 8 / 6 117 / 6

Table 3: Sheet N. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Externalization flexibility			
	q11g (decreasing) Teleworking from home with a PC	q11h (decreasing) Working at home excluding telework	q11i (decreasing) Working at places other than home or company	q9aR (increasing) Pay job other than the main one
	1: Always 2: Almost always 3: 3/4 of the time 4: Half of the time 5: 1/4 of the time 6: Almost never 7: Never	1: Always 2: Almost always 3: 3/4 of the time 4: Half of the time 5: 1/4 of the time 6: Almost never 7: Never	1: Always 2: Almost always 3: 3/4 of the time 4: Half of the time 5: 1/4 of the time 6: Almost never 7: Never	1: No 2: Occasional 3: Seasonal 4: Regular
NL (877) Netherlands	6.47 9 / 3 140 / 3	6.42 10 / 3 156 / 3	5.67 22 / 4 122 / 4	1.23 8 / 7 107 / 7
AT (842) Austria	6.66 6 / 13 19 / 13	6.70 5 / 22 −42 / 22	5.67 22 / 5 121 / 5	1.13 4 / 18 −46 / 18
PL (793) Poland	6.56 7 / 7 82 / 7	6.54 8 / 7 70 / 7	6.11 15 / 26 −104 / 26	1.15 5 / 16 −13 / 16
PT (788) Portugal	6.94 1 / 31 −166 / 31	6.93 1 / 31 −205 / 31	5.99 17 / 20 −46 / 20	1.11 4 / 23 −78 / 23
SI (500) Slovenia	6.69 5 / 15 0 / 15	6.61 7 / 11 22 / 11	5.90 18 / 16 5 / 16	1.18 6 / 10 31 / 10
SK (860) Slovakia	6.63 6 / 10 39 / 10	6.58 7 / 10 43 / 10	6.09 15 / 24 −95 / 24	1.12 4 / 19 −58 / 19
FI (911) Finland	6.64 6 / 11 29 / 11	6.56 7 / 9 57 / 9	5.65 23 / 2 132 / 2	1.17 6 / 12 21 / 12
SE (951) Sweden	6.53 8 / 6 98 / 6	6.53 8 / 6 73 / 6	5.75 21 / 8 81 / 8	1.22 7 / 8 95 / 8
UK (876) United Kingdom	6.71 5 / 17 −12 / 17	6.71 5 / 23 −50 / 23	5.78 20 / 9 65 / 9	1.08 3 / 27 −110 / 27
BG (954) Bulgaria	6.91 2 / 29 −141 / 29	6.88 2 / 30 −168 / 30	6.13 14 / 27 −115 / 27	1.09 3 / 26 −95 / 26
HR (816) Croatia	6.37 11 / 1 206 / 1	6.39 10 / 2 172 / 2	5.85 19 / 15 29 / 15	1.11 4 / 22 −75 / 22
RO (798) Romania	6.88 2 / 27 −123 / 27	6.67 5 / 17 −22 / 17	6.16 14 / 30 −127 / 30	1.13 4 / 17 −43 / 17
TR (454) Turkey	6.79 3 / 24 −69 / 24	6.74 4 / 26 −72 / 26	5.93 18 / 18 −13 / 18	1.10 3 / 24 −81 / 24
NO (846) Norway	6.58 7 / 9 71 / 9	6.65 6 / 15 −6 / 15	5.84 19 / 13 34 / 13	1.29 10 / 1 197 / 1
CH (831) Switzerland	6.65 6 / 12 24 / 12	6.50 8 / 5 98 / 5	5.52 25 / 1 197 / 1	1.24 8 / 5 124 / 5

Table 3: Sheet O. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Externalization flexibility	Income	
	q9bR (increasing) Time in job(s) other than the main one	ef5 (decreasing) Net monthly income harmonized	ef5q8a (decreasing) Net hourly earnings harmonized
	Hours/week	1: National 1st decile ..... 10: National 10th decile	In national deciles: $\frac{\text{National decile} * 3}{\text{Hours per week} * 13}$ (13/3 weeks per month)
BE (798) Belgium	0.41 1 / 15 6 / 15	7.63 26 / 31 −226 / 31	0.05 95 / 31 −273 / 31
CZ (749) Czech Republic	0.34 0 / 18 −27 / 18	4.67 59 / 8 83 / 8	0.03 98 / 6 83 / 6
DK (865) Denmark	0.64 1 / 4 117 / 4	6.00 44 / 23 −56 / 23	0.04 97 / 24 −64 / 24
DE (877) Germany	0.26 0 / 22 −68 / 22	6.06 44 / 25 −62 / 25	0.04 97 / 20 −37 / 20
EE (555) Estonia	0.47 1 / 11 34 / 11	5.70 48 / 21 −25 / 21	0.03 97 / 15 21 / 15
EL (629) Greece	0.59 1 / 5 95 / 5	6.44 40 / 28 −102 / 28	0.04 97 / 27 −76 / 27
ES (786) Spain	0.20 0 / 26 −95 / 26	5.69 48 / 20 −23 / 20	0.04 97 / 17 −9 / 17
FR (878) France	0.20 0 / 27 −96 / 27	5.67 48 / 17 −21 / 17	0.04 97 / 28 −88 / 28
IE (768) Ireland	0.26 0 / 23 −70 / 23	5.68 48 / 18 −22 / 18	0.04 97 / 21 −41 / 21
IT (691) Italy	0.10 0 / 31 −145 / 31	5.69 48 / 19 −23 / 19	0.04 97 / 23 −55 / 23
CY (482) Cyprus	0.32 0 / 19 −40 / 19	4.49 61 / 6 102 / 6	0.03 98 / 8 72 / 8
LV (903) Latvia	0.95 1 / 1 270 / 1	4.54 61 / 7 97 / 7	0.03 98 / 5 85 / 5
LT (873) Lithuania	0.58 1 / 6 88 / 6	5.04 55 / 10 45 / 10	0.03 97 / 11 39 / 11
LU (520) Luxemburg	0.21 0 / 25 −93 / 25	6.29 41 / 26 −86 / 26	0.04 97 / 26 −70 / 26
HU (810) Hungary	0.52 1 / 8 58 / 8	4.24 64 / 5 128 / 5	0.02 98 / 3 146 / 3
MT (507) Malta	0.80 1 / 2 197 / 2	3.92 68 / 2 162 / 2	0.02 98 / 2 152 / 2

Table 3: Sheet P. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Externalization flexibility	Income	
	q9bR (increasing) Time in job(s) other than the main one	ef5 (decreasing) Net monthly income harmonized	ef5q8a (decreasing) Net hourly earnings harmonized
	Hours/week	1: National 1st decile ..... 10: National 10th decile	In national deciles: $\frac{\text{National decile} * 3}{\text{Hours per week} * 13}$ (13/3 weeks per month)
NL (877) Netherlands	0.48 1 / 9 39 / 9	5.28 52 / 13 20 / 13	0.04 97 / 22 −54 / 22
AT (842) Austria	0.28 0 / 20 −58 / 20	6.37 40 / 27 −95 / 27	0.04 97 / 29 −101 / 29
PL (793) Poland	0.47 1 / 10 37 / 10	3.80 69 / 1 174 / 1	0.03 98 / 4 146 / 4
PT (788) Portugal	0.42 1 / 14 9 / 14	5.65 48 / 16 −19 / 16	0.03 97 / 16 9 / 16
SI (500) Slovenia	0.46 1 / 12 32 / 12	6.04 44 / 24 −60 / 24	0.04 97 / 19 −25 / 19
SK (860) Slovakia	0.17 0 / 29 −111 / 29	5.22 53 / 12 26 / 12	0.03 98 / 7 81 / 7
FI (911) Finland	0.35 0 / 17 −24 / 17	7.41 29 / 30 −203 / 30	0.05 96 / 30 −210 / 30
SE (951) Sweden	0.52 1 / 7 60 / 7	5.57 49 / 15 −11 / 15	0.03 97 / 13 22 / 13
UK (876) United Kingdom	0.27 0 / 21 −61 / 21	4.21 64 / 4 131 / 4	0.03 97 / 9 59 / 9
BG (954) Bulgaria	0.24 0 / 24 −79 / 24	6.79 36 / 29 −139 / 29	0.04 97 / 25 −67 / 25
HR (816) Croatia	0.19 0 / 28 −102 / 28	5.54 50 / 14 −8 / 14	0.03 97 / 14 22 / 14
RO (798) Romania	0.37 1 / 16 −15 / 16	5.07 55 / 11 41 / 11	0.03 97 / 10 39 / 10
TR (454) Turkey	0.11 0 / 30 −141 / 30	4.10 66 / 3 143 / 3	0.02 98 / 1 182 / 1
NO (846) Norway	0.75 1 / 3 169 / 3	4.81 58 / 9 69 / 9	0.03 97 / 12 37 / 12
CH (831) Switzerland	0.43 1 / 13 14 / 13	5.81 47 / 22 −36 / 22	0.04 97 / 18 −24 / 18

Table 3: Sheet Q. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Income			Employment stability
	ef5R (decreasing) Net monthly income	ef5q8aR (decreasing) Net hourly earnings	q37b (increasing) Fair pay	q2b2dhh2b (decreasing) Tenure in the organization reduced to the length of working life
	EUR (derivative from national deciles)	EUR (derivative)	1: Fair 2: Rather fair 3: Moderate 4: Rather not fair 5: Not fair	$\frac{\text{Tenure}}{\text{Duration of working life}}$
BE (798) Belgium	1406.56 78 / 21 −30 / 21	10.14 96 / 23 −38 / 23	3.39 60 / 5 114 / 5	0.60 40 / 31 −223 / 31
CZ (749) Czech Republic	411.15 94 / 10 81 / 10	2.59 99 / 10 80 / 10	2.84 46 / 16 −45 / 16	0.39 61 / 6 99 / 6
DK (865) Denmark	1968.96 69 / 27 −93 / 27	13.60 95 / 26 −92 / 26	3.32 58 / 8 93 / 8	0.43 57 / 10 31 / 10
DE (877) Germany	1416.53 78 / 22 −31 / 22	9.01 97 / 20 −20 / 20	3.40 60 / 4 116 / 4	0.46 54 / 17 −6 / 17
EE (555) Estonia	317.91 95 / 7 91 / 7	1.86 99 / 6 91 / 6	2.73 43 / 22 −76 / 22	0.33 67 / 1 184 / 1
EL (629) Greece	940.97 85 / 15 22 / 15	5.93 98 / 15 28 / 15	2.82 45 / 18 −51 / 18	0.44 56 / 12 22 / 12
ES (786) Spain	1006.87 84 / 16 14 / 16	6.47 98 / 16 19 / 16	3.28 57 / 11 81 / 11	0.41 59 / 9 63 / 9
FR (878) France	1356.11 79 / 20 −25 / 20	10.06 96 / 22 −37 / 22	2.80 45 / 19 −55 / 19	0.44 56 / 14 18 / 14
IE (768) Ireland	2021.12 68 / 28 −99 / 28	14.14 95 / 27 −100 / 27	3.36 59 / 7 106 / 7	0.44 56 / 15 11 / 15
IT (691) Italy	1062.02 84 / 17 8 / 17	7.41 97 / 17 5 / 17	2.80 45 / 20 −57 / 20	0.50 50 / 23 −78 / 23
CY (482) Cyprus	1291.18 80 / 19 −17 / 19	8.65 97 / 19 −15 / 19	3.64 66 / 1 187 / 1	0.51 49 / 24 −81 / 24
LV (903) Latvia	241.47 97 / 4 100 / 4	1.56 99 / 4 96 / 4	2.69 42 / 26 −88 / 26	0.35 65 / 3 157 / 3
LT (873) Lithuania	234.99 97 / 3 100 / 3	1.52 99 / 3 97 / 3	2.71 43 / 25 −83 / 25	0.39 61 / 7 91 / 7
LU (520) Luxemburg	2469.67 61 / 29 −149 / 29	15.76 94 / 29 −126 / 29	3.51 63 / 3 150 / 3	0.51 49 / 26 −85 / 26
HU (810) Hungary	340.65 95 / 8 89 / 8	2.02 99 / 8 89 / 8	2.39 35 / 31 −176 / 31	0.36 64 / 4 134 / 4
MT (507) Malta	850.16 87 / 14 32 / 14	5.41 98 / 14 36 / 14	3.11 53 / 13 33 / 13	0.55 45 / 29 −145 / 29

Table 3: Sheet R. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Income			Employment stability
	ef5R (decreasing) Net monthly income	ef5q8aR (decreasing) Net hourly earnings	q37b (increasing) Fair pay	q2b2dhh2b (decreasing) Tenure in the organization reduced to the length of working life
	EUR (derivative from national deciles)	EUR (derivative)	1: Fair 2: Rather fair 3: Moderate 4: Rather not fair 5: Not fair	$\frac{\text{Tenure}}{\text{Duration of working life}}$
NL (877) Netherlands	1552.09 76 / 24 −47 / 24	12.24 95 / 25 −71 / 25	3.28 57 / 10 81 / 10	0.47 53 / 20 −27 / 20
AT (842) Austria	1265.71 80 / 18 −15 / 18	8.51 97 / 18 −12 / 18	3.36 59 / 6 106 / 6	0.45 55 / 16 4 / 16
PL (793) Poland	311.70 96 / 6 92 / 6	2.12 99 / 9 87 / 9	2.73 43 / 23 −77 / 23	0.49 51 / 21 −58 / 21
PT (788) Portugal	628.62 90 / 12 57 / 12	3.86 99 / 12 60 / 12	2.77 44 / 21 −64 / 21	0.43 57 / 11 29 / 11
SI (500) Slovenia	694.96 89 / 13 49 / 13	4.22 98 / 13 55 / 13	2.82 46 / 17 −50 / 17	0.56 44 / 30 −156 / 30
SK (860) Slovakia	296.61 96 / 5 94 / 5	1.68 99 / 5 94 / 5	2.63 41 / 28 −105 / 28	0.44 56 / 13 22 / 13
FI (911) Finland	1482.33 77 / 23 −39 / 23	9.86 96 / 21 −33 / 21	2.72 43 / 24 −80 / 24	0.49 51 / 22 −59 / 22
SE (951) Sweden	1712.17 73 / 25 −64 / 25	10.64 96 / 24 −46 / 24	2.91 48 / 15 −26 / 15	0.51 49 / 25 −83 / 25
UK (876) United Kingdom	1736.91 73 / 26 −67 / 26	14.30 95 / 28 −103 / 28	3.24 56 / 12 70 / 12	0.34 66 / 2 167 / 2
BG (954) Bulgaria	131.15 98 / 1 112 / 1	0.76 100 / 1 109 / 1	2.61 40 / 29 −112 / 29	0.37 63 / 5 120 / 5
HR (816) Croatia	541.86 92 / 11 66 / 11	3.26 99 / 11 70 / 11	2.96 49 / 14 −11 / 14	0.53 47 / 28 −114 / 28
RO (798) Romania	163.36 98 / 2 108 / 2	1.03 100 / 2 104 / 2	2.65 41 / 27 −100 / 27	0.46 54 / 18 −7 / 18
TR (454) Turkey	343.56 95 / 9 88 / 9	1.87 99 / 7 91 / 7	2.54 39 / 30 −130 / 30	0.40 60 / 8 76 / 8
NO (846) Norway	3744.92 41 / 31 −291 / 31	27.88 90 / 31 −315 / 31	3.30 58 / 9 89 / 9	0.51 49 / 27 −88 / 27
CH (831) Switzerland	3246.85 49 / 30 −236 / 30	20.80 92 / 30 −204 / 30	3.55 64 / 2 161 / 2	0.46 54 / 19 −17 / 19

Table 3: Sheet S. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Employment stability			Employability
	q2c2d (decreasing) Tenure in the organization reduced to the length of employment	q37a (decreasing) Risk of unemployment in 6 months	q37d (decreasing) Comfort feeling at work	q35R (increasing) Ability to do the work after 60
	$\frac{\text{Tenure}}{\text{Duration of employment}}$	1: Very high 2: Rather high 3: Moderate 4: Rather low 5: Very low	1: Very high 2: Rather high 3: Moderate 4: Rather low 5: Very low	1: Yes 2: No will 3: No
BE (798) Belgium	0.64 36 / 31 −171 / 31	1.76 81 / 6 101 / 6	3.79 30 / 20 −51 / 20	1.87 44 / 10 31 / 10
CZ (749) Czech Republic	0.44 56 / 6 95 / 6	2.93 52 / 31 −222 / 31	3.24 44 / 6 100 / 6	1.80 40 / 16 −2 / 16
DK (865) Denmark	0.45 55 / 8 92 / 8	1.55 86 / 2 161 / 2	4.27 18 / 31 −182 / 31	1.59 29 / 25 −94 / 25
DE (877) Germany	0.52 48 / 14 −0 / 14	2.24 69 / 19 −31 / 19	3.54 37 / 15 19 / 15	1.43 21 / 31 −166 / 31
EE (555) Estonia	0.36 64 / 1 204 / 1	2.44 64 / 25 −86 / 25	3.59 35 / 17 4 / 17	1.69 35 / 22 −49 / 22
EL (629) Greece	0.54 46 / 18 −27 / 18	2.42 64 / 24 −82 / 24	3.23 44 / 5 103 / 5	2.13 56 / 3 145 / 3
ES (786) Spain	0.49 51 / 11 35 / 11	1.98 76 / 14 42 / 14	3.47 38 / 11 37 / 11	1.77 39 / 17 −13 / 17
FR (878) France	0.54 46 / 19 −30 / 19	1.68 83 / 4 125 / 4	3.03 49 / 3 157 / 3	2.02 51 / 7 98 / 7
IE (768) Ireland	0.48 52 / 9 50 / 9	1.90 77 / 9 62 / 9	3.85 29 / 21 −67 / 21	1.64 32 / 23 −71 / 23
IT (691) Italy	0.63 37 / 29 −154 / 29	1.93 77 / 11 55 / 11	3.28 43 / 7 88 / 7	1.71 35 / 20 −43 / 20
CY (482) Cyprus	0.58 42 / 26 −88 / 26	1.97 76 / 13 44 / 13	3.90 28 / 23 −81 / 23	1.75 37 / 18 −24 / 18
LV (903) Latvia	0.38 62 / 2 177 / 2	2.32 67 / 20 −52 / 20	3.53 37 / 14 19 / 14	1.74 37 / 19 −26 / 19
LT (873) Lithuania	0.44 56 / 5 107 / 5	2.68 58 / 30 −152 / 30	2.97 51 / 2 175 / 2	1.80 40 / 15 −1 / 15
LU (520) Luxemburg	0.57 43 / 25 −71 / 25	1.65 84 / 3 133 / 3	3.36 41 / 8 66 / 8	1.86 43 / 11 27 / 11
HU (810) Hungary	0.40 60 / 4 149 / 4	2.49 63 / 26 −101 / 26	3.92 27 / 25 −88 / 25	1.86 43 / 12 26 / 12
MT (507) Malta	0.61 39 / 27 −129 / 27	1.97 76 / 12 45 / 12	3.91 27 / 24 −83 / 24	1.81 41 / 14 6 / 14

Table 3: Sheet T. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Employment stability			Employability
	q2c2d (decreasing) Tenure in the organization reduced to the length of employment	q37a (decreasing) Risk of unemployment in 6 months	q37d (decreasing) Comfort feeling at work	q35R (increasing) Ability to do the work after 60
	Tenure / Duration of employment	1: Very high 2: Rather high 3: Moderate 4: Rather low 5: Very low	1: Very high 2: Rather high 3: Moderate 4: Rather low 5: Very low	1: Yes 2: No will 3: No
NL (877) Netherlands	0.52 48 / 17 −12 / 17	2.01 75 / 16 32 / 16	3.99 25 / 27 −106 / 27	1.48 24 / 29 −140 / 29
AT (842) Austria	0.52 48 / 15 −3 / 15	1.92 77 / 10 56 / 10	3.68 33 / 19 −21 / 19	1.70 35 / 21 −43 / 21
PL (793) Poland	0.56 44 / 24 −58 / 24	2.59 60 / 28 −128 / 28	3.21 45 / 4 110 / 4	2.10 55 / 4 132 / 4
PT (788) Portugal	0.52 48 / 16 −8 / 16	2.37 66 / 23 −66 / 23	3.66 33 / 18 −16 / 18	2.02 51 / 6 98 / 6
SI (500) Slovenia	0.64 36 / 30 −161 / 30	2.36 66 / 22 −66 / 22	3.46 38 / 10 39 / 10	2.23 61 / 2 188 / 2
SK (860) Slovakia	0.49 51 / 10 37 / 10	2.35 66 / 21 −62 / 21	3.39 40 / 9 58 / 9	1.98 49 / 9 78 / 9
FI (911) Finland	0.54 46 / 21 −34 / 21	1.88 78 / 7 68 / 7	4.01 25 / 28 −112 / 28	1.64 32 / 24 −71 / 24
SE (951) Sweden	0.54 46 / 22 −38 / 22	1.98 76 / 15 41 / 15	4.11 22 / 29 −138 / 29	1.52 26 / 28 −125 / 28
UK (876) United Kingdom	0.40 60 / 3 150 / 3	1.76 81 / 5 102 / 5	3.96 26 / 26 −98 / 26	1.55 27 / 26 −113 / 26
BG (954) Bulgaria	0.45 55 / 7 94 / 7	2.63 59 / 29 −139 / 29	3.48 38 / 12 35 / 12	2.02 51 / 5 99 / 5
HR (816) Croatia	0.62 38 / 28 −141 / 28	2.18 70 / 18 −15 / 18	3.56 36 / 16 14 / 16	1.98 49 / 8 80 / 8
RO (798) Romania	0.51 49 / 13 2 / 13	2.13 72 / 17 −1 / 17	3.48 38 / 13 34 / 13	1.85 43 / 13 23 / 13
TR (454) Turkey	0.55 45 / 23 −43 / 23	2.52 62 / 27 −109 / 27	2.83 54 / 1 214 / 1	2.28 64 / 1 212 / 1
NO (846) Norway	0.54 46 / 20 −34 / 20	1.48 88 / 1 179 / 1	4.17 21 / 30 −155 / 30	1.53 27 / 27 −120 / 27
CH (831) Switzerland	0.51 49 / 12 10 / 12	1.89 78 / 8 66 / 8	3.89 28 / 22 −78 / 22	1.48 24 / 30 −144 / 30

Table 3: Sheet U. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Employability		
	q37c (increasing) Career prospects	q37e (increasing) Learning/training possibilities	q32 (decreasing) Influence of work on health and safety
	1: Good 2: Rather good 3: Modest 4: Rather bad 5: Bad	1: Good 2: Rather good 3: Modest 4: Rather bad 5: Bad	1: Bad influence 2: No influence
BE (798) Belgium	2.62 41 / 15 −1 / 15	3.48 62 / 8 60 / 8	1.77 23 / 26 −90 / 26
CZ (749) Czech Republic	2.50 38 / 23 −62 / 23	2.76 44 / 30 −152 / 30	1.77 23 / 27 −92 / 27
DK (865) Denmark	2.95 49 / 3 165 / 3	3.90 73 / 2 183 / 2	1.76 24 / 20 −75 / 20
DE (877) Germany	2.72 43 / 9 48 / 9	3.09 52 / 22 −55 / 22	1.82 18 / 30 −140 / 30
EE (555) Estonia	2.33 33 / 30 −150 / 30	2.92 48 / 26 −104 / 26	1.61 39 / 10 82 / 10
EL (629) Greece	2.47 37 / 26 −76 / 26	3.21 55 / 19 −21 / 19	1.51 49 / 1 194 / 1
ES (786) Spain	2.60 40 / 16 −11 / 16	3.21 55 / 18 −19 / 18	1.69 31 / 16 −1 / 16
FR (878) France	2.68 42 / 10 26 / 10	3.26 56 / 16 −6 / 16	1.76 24 / 24 −84 / 24
IE (768) Ireland	2.99 50 / 2 186 / 2	3.55 64 / 6 79 / 6	1.78 22 / 28 −98 / 28
IT (691) Italy	2.36 34 / 28 −134 / 28	3.23 56 / 17 −14 / 17	1.72 28 / 18 −34 / 18
CY (482) Cyprus	2.79 45 / 8 82 / 8	3.47 62 / 9 55 / 9	1.67 33 / 12 17 / 12
LV (903) Latvia	2.49 37 / 25 −65 / 25	2.96 49 / 24 −92 / 24	1.52 48 / 2 175 / 2
LT (873) Lithuania	2.46 37 / 27 −82 / 27	2.99 50 / 23 −84 / 23	1.61 39 / 9 84 / 9
LU (520) Luxemburg	2.88 47 / 4 127 / 4	3.43 61 / 12 45 / 12	1.69 31 / 17 −4 / 17
HU (810) Hungary	2.20 30 / 31 −212 / 31	2.96 49 / 25 −93 / 25	1.68 32 / 14 6 / 14
MT (507) Malta	2.84 46 / 6 107 / 6	3.45 61 / 10 51 / 10	1.68 32 / 15 5 / 15

Table 3: Sheet V. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Employability		
	q37c (increasing) Career prospects	q37e (increasing) Learning/training possibilities	q32 (decreasing) Influence of work on health and safety
	1: Good 2: Rather good 3: Modest 4: Rather bad 5: Bad	1: Good 2: Rather good 3: Modest 4: Rather bad 5: Bad	1: Bad influence 2: No influence
NL (877) Netherlands	2.63 41 / 14 2 / 14	3.37 59 / 13 26 / 13	1.76 24 / 22 −80 / 22
AT (842) Austria	2.66 42 / 11 19 / 11	3.26 57 / 15 −5 / 15	1.76 24 / 23 −80 / 23
PL (793) Poland	2.55 39 / 21 −35 / 21	2.86 46 / 28 −123 / 28	1.60 40 / 7 89 / 7
PT (788) Portugal	2.85 46 / 5 114 / 5	3.45 61 / 11 49 / 11	1.74 26 / 19 −55 / 19
SI (500) Slovenia	2.58 40 / 18 −21 / 18	2.89 47 / 27 −113 / 27	1.58 42 / 5 114 / 5
SK (860) Slovakia	2.33 33 / 29 −148 / 29	3.16 54 / 21 −36 / 21	1.67 33 / 13 13 / 13
FI (911) Finland	2.81 45 / 7 94 / 7	3.94 73 / 1 193 / 1	1.76 24 / 21 −78 / 21
SE (951) Sweden	2.58 39 / 19 −24 / 19	3.77 69 / 4 144 / 4	1.54 46 / 3 160 / 3
UK (876) United Kingdom	3.02 51 / 1 200 / 1	3.51 63 / 7 68 / 7	1.81 19 / 29 −133 / 29
BG (954) Bulgaria	2.50 38 / 24 −62 / 24	2.83 46 / 29 −132 / 29	1.61 39 / 8 86 / 8
HR (816) Croatia	2.63 41 / 13 5 / 13	3.27 57 / 14 −4 / 14	1.64 36 / 11 46 / 11
RO (798) Romania	2.51 38 / 22 −55 / 22	3.20 55 / 20 −23 / 20	1.60 40 / 6 92 / 6
TR (454) Turkey	2.56 39 / 20 −34 / 20	2.69 42 / 31 −172 / 31	1.56 44 / 4 136 / 4
NO (846) Norway	2.59 40 / 17 −16 / 17	3.86 71 / 3 170 / 3	1.84 16 / 31 −168 / 31
CH (831) Switzerland	2.65 41 / 12 14 / 12	3.70 68 / 5 124 / 5	1.77 23 / 25 −87 / 25

Table 3: Sheet W. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Partial indices			
	External numerical flexibility	Internal numerical flexibility	Functional flexibility	Wage flexibility
	Mean score, %	Mean score, %	Mean score, %	Mean score, %
BE (798) Belgium	8 / 28 −70 / 28	45 / 24 −72 / 24	58 / 8 78 / 8	29 / 8 51 / 8
CZ (749) Czech Republic	11 / 19 −50 / 20	48 / 16 11 / 16	52 / 23 −85 / 26	31 / 6 89 / 6
DK (865) Denmark	13 / 13 −32 / 13	41 / 31 −175 / 29	66 / 1 222 / 1	26 / 19 −8 / 15
DE (877) Germany	9 / 24 −61 / 24	48 / 17 −11 / 18	54 / 18 −27 / 19	30 / 7 3 / 12
EE (555) Estonia	13 / 14 −34 / 14	44 / 26 −88 / 25	54 / 17 −16 / 17	28 / 11 20 / 10
EL (629) Greece	41 / 4 148 / 4	53 / 4 122 / 3	56 / 11 18 / 13	27 / 15 −27 / 19
ES (786) Spain	22 / 7 27 / 7	52 / 7 94 / 7	46 / 31 −186 / 31	27 / 16 −8 / 14
FR (878) France	12 / 16 −42 / 16	47 / 21 −40 / 21	52 / 26 −68 / 23	35 / 2 164 / 4
IE (768) Ireland	33 / 5 101 / 5	50 / 12 31 / 13	55 / 15 5 / 14	25 / 23 −22 / 18
IT (691) Italy	17 / 11 −10 / 11	47 / 20 −27 / 20	51 / 27 −83 / 25	26 / 18 −35 / 21
CY (482) Cyprus	48 / 2 199 / 2	55 / 1 144 / 1	53 / 21 −41 / 21	23 / 29 −113 / 30
LV (903) Latvia	10 / 21 −57 / 21	48 / 15 28 / 14	53 / 22 −63 / 22	28 / 12 −17 / 17
LT (873) Lithuania	13 / 15 −35 / 15	48 / 18 15 / 15	47 / 30 −169 / 30	24 / 25 −107 / 28
LU (520) Luxemburg	7 / 30 −78 / 31	49 / 13 2 / 17	56 / 13 18 / 12	34 / 4 164 / 3
HU (810) Hungary	11 / 20 −50 / 19	51 / 10 83 / 10	47 / 29 −151 / 29	23 / 28 −105 / 27
MT (507) Malta	46 / 3 184 / 3	52 / 6 92 / 8	57 / 10 51 / 9	22 / 30 −110 / 29

Table 3: Sheet X. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Partial indices			
	External numerical flexibility	Internal numerical flexibility	Functional flexibility	Wage flexibility
	Mean score, %	Mean score, %	Mean score, %	Mean score, %
NL (877) Netherlands	9 / 23 −60 / 23	43 / 28 −134 / 28	62 / 3 141 / 4	28 / 13 22 / 9
AT (842) Austria	19 / 9 2 / 9	44 / 27 −131 / 27	56 / 12 21 / 11	28 / 10 15 / 11
PL (793) Poland	17 / 12 −11 / 12	52 / 9 91 / 9	55 / 14 −2 / 15	25 / 20 −46 / 22
PT (788) Portugal	20 / 8 11 / 8	55 / 2 140 / 2	50 / 28 −92 / 27	25 / 22 −58 / 23
SI (500) Slovenia	9 / 26 −63 / 26	45 / 23 −57 / 22	64 / 2 169 / 2	28 / 9 106 / 5
SK (860) Slovakia	9 / 25 −63 / 25	49 / 14 38 / 12	54 / 20 −36 / 20	35 / 3 282 / 1
FI (911) Finland	11 / 18 −48 / 18	44 / 25 −90 / 26	59 / 7 86 / 7	37 / 1 174 / 2
SE (951) Sweden	9 / 27 −65 / 27	41 / 29 −191 / 31	60 / 5 104 / 6	27 / 14 −4 / 13
UK (876) United Kingdom	27 / 6 56 / 6	47 / 19 −18 / 19	55 / 16 −6 / 16	23 / 26 −92 / 25
BG (954) Bulgaria	19 / 10 2 / 10	53 / 5 110 / 5	52 / 25 −97 / 28	24 / 24 −76 / 24
HR (816) Croatia	12 / 17 −45 / 17	52 / 8 70 / 11	57 / 9 48 / 10	23 / 27 −104 / 26
RO (798) Romania	9 / 22 −59 / 22	51 / 11 96 / 6	54 / 19 −22 / 18	33 / 5 56 / 7
TR (454) Turkey	71 / 1 356 / 1	53 / 3 121 / 4	52 / 24 −80 / 24	22 / 31 −168 / 31
NO (846) Norway	7 / 29 −76 / 29	46 / 22 −71 / 23	62 / 4 144 / 3	25 / 21 −32 / 20
CH (831) Switzerland	7 / 31 −77 / 30	41 / 30 −183 / 30	60 / 6 118 / 5	26 / 17 −16 / 16

Table 3: Sheet Y. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Partial indices			
	Externalization flexibility	Income	Employment stability	Employability
	Mean score, %	Mean score, %	Mean score, %	Mean score, %
BE (798) Belgium	8 / 11 48 / 9	69 / 28 −94 / 26	47 / 29 −159 / 29	42 / 17 19 / 16
CZ (749) Czech Republic	8 / 16 10 / 14	74 / 12 89 / 8	53 / 11 40 / 10	36 / 30 −211 / 31
DK (865) Denmark	10 / 6 124 / 5	72 / 18 −107 / 27	54 / 8 27 / 12	44 / 10 115 / 3
DE (877) Germany	6 / 24 −91 / 26	74 / 10 −19 / 19	52 / 19 −9 / 19	34 / 31 −203 / 30
EE (555) Estonia	7 / 20 −20 / 19	71 / 23 57 / 12	58 / 3 138 / 3	38 / 28 −149 / 29
EL (629) Greece	11 / 4 127 / 4	71 / 20 −23 / 20	53 / 17 15 / 16	49 / 1 160 / 1
ES (786) Spain	7 / 19 −47 / 21	73 / 14 37 / 14	56 / 6 107 / 6	41 / 21 −28 / 19
FR (878) France	6 / 22 −88 / 25	68 / 30 −66 / 23	59 / 1 206 / 1	43 / 15 25 / 15
IE (768) Ireland	10 / 5 58 / 7	72 / 16 −85 / 25	53 / 12 15 / 15	42 / 18 44 / 12
IT (691) Italy	6 / 25 −115 / 27	69 / 27 −27 / 21	51 / 20 −6 / 17	38 / 26 −120 / 26
CY (482) Cyprus	12 / 2 159 / 2	80 / 1 66 / 11	48 / 26 −114 / 26	44 / 11 68 / 11
LV (903) Latvia	7 / 17 38 / 11	77 / 4 115 / 3	57 / 4 128 / 5	43 / 16 −28 / 20
LT (873) Lithuania	6 / 27 −81 / 23	76 / 6 98 / 6	56 / 5 131 / 4	41 / 20 −57 / 24
LU (520) Luxemburg	6 / 23 −84 / 24	71 / 22 −117 / 28	54 / 10 67 / 8	45 / 6 111 / 5
HU (810) Hungary	5 / 30 −121 / 29	75 / 7 98 / 5	53 / 13 −7 / 18	38 / 27 −147 / 28
MT (507) Malta	12 / 3 137 / 3	78 / 2 101 / 4	46 / 30 −171 / 31	45 / 9 89 / 8

Table 3: Sheet Z. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Partial indices			
	Externalization flexibility	Income	Employment stability	Employability
	Mean score, %	Mean score, %	Mean score, %	Mean score, %
NL (877)	9 / 8	74 / 11	50 / 23	37 / 29
Netherlands	74 / 6	−44 / 22	−80 / 24	−121 / 27
AT (842)	8 / 9	71 / 21	53 / 15	40 / 23
Austria	−2 / 16	−2 / 18	20 / 14	−65 / 25
PL (793)	7 / 18	77 / 5	50 / 24	45 / 8
Poland	−3 / 17	127 / 2	−61 / 23	29 / 13
PT (788)	5 / 28	71 / 24	51 / 21	46 / 4
Portugal	−138 / 30	30 / 15	−51 / 21	122 / 2
SI (500)	7 / 21	72 / 19	46 / 31	47 / 2
Slovenia	−39 / 20	21 / 16	−169 / 30	92 / 7
SK (860)	6 / 26	73 / 13	53 / 14	42 / 19
Slovakia	−76 / 22	77 / 9	37 / 11	−36 / 21
FI (911)	8 / 15	67 / 31	50 / 25	44 / 12
Finland	2 / 15	−148 / 29	−87 / 25	103 / 6
SE (951)	8 / 14	73 / 15	48 / 27	46 / 5
Sweden	29 / 13	−67 / 24	−135 / 28	113 / 4
UK (876)	8 / 10	71 / 25	58 / 2	40 / 22
United Kingdom	−11 / 18	4 / 17	142 / 2	−7 / 17
BG (954)	5 / 31	72 / 17	54 / 9	43 / 14
Bulgaria	−168 / 31	45 / 13	43 / 9	−17 / 18
HR (816)	8 / 13	74 / 9	48 / 28	45 / 7
Croatia	30 / 12	68 / 10	−119 / 27	79 / 9
RO (798)	5 / 29	75 / 8	53 / 16	44 / 13
Romania	−117 / 28	95 / 7	25 / 13	27 / 14
TR (454)	16 / 1	78 / 3	55 / 7	47 / 3
Turkey	279 / 1	133 / 1	99 / 7	79 / 10
NO (846)	8 / 12	68 / 29	51 / 22	39 / 25
Norway	39 / 10	−264 / 31	−54 / 22	−45 / 23
CH (831)	9 / 7	69 / 26	52 / 18	39 / 24
Switzerland	49 / 8	−197 / 30	−20 / 20	−37 / 22

Table 3: Sheet Z1. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Aggregated indices		
	Aggregate flexibility	Aggregate precariousness	Regression coefficient * $P\{H_0\} > 0.05$
	Mean score, %	Mean score, %	
BE (798) Belgium	30 / 22 −17 / 15	52 / 31 −136 / 29	0.16 / 9 0.05* / 19
CZ (749) Czech Republic	30 / 21 −28 / 17	54 / 24 23 / 18	0.08* / 21 0.04* / 21
DK (865) Denmark	31 / 9 22 / 9	57 / 9 −46 / 22	0.06* / 24 0.02* / 27
DE (877) Germany	29 / 23 −85 / 28	53 / 28 −90 / 26	0.18 / 5 0.11 / 6
EE (555) Estonia	29 / 24 −65 / 24	56 / 19 52 / 10	0.06* / 25 0.03* / 22
EL (629) Greece	38 / 4 192 / 3	58 / 3 40 / 14	0.10 / 14 0.11 / 7
ES (786) Spain	31 / 12 −29 / 18	57 / 10 62 / 7	0.18 / 4 0.10 / 8
FR (878) France	30 / 18 −36 / 21	56 / 13 27 / 17	0.04* / 29 0.06* / 16
IE (768) Ireland	35 / 5 97 / 5	56 / 16 −55 / 23	0.08 / 17 0.07 / 11
IT (691) Italy	29 / 26 −98 / 29	53 / 29 −67 / 24	0.17 / 7 0.15 / 1
CY (482) Cyprus	38 / 2 192 / 2	57 / 5 39 / 15	0.06* / 26 0.03* / 25
LV (903) Latvia	29 / 27 −49 / 23	59 / 2 142 / 2	0.04* / 27 −0.01* / 29
LT (873) Lithuania	27 / 30 −147 / 31	58 / 4 116 / 3	0.06* / 22 0.03* / 24
LU (520) Luxemburg	30 / 15 −11 / 12	57 / 8 −41 / 21	0.08* / 19 −0.04* / 30
HU (810) Hungary	27 / 31 −136 / 30	56 / 20 35 / 16	0.14 / 12 0.06* / 15
MT (507) Malta	38 / 3 189 / 4	56 / 11 56 / 8	0.08 / 20 0.07* / 13

Table 3: Sheet Z2. Flexibility and precariousness of work for European countries, their normalized scores (HBS methodology), and standardized scores (OECD methodology) with their ranks for 23788 persons interviewed

	Aggregated indices		
	Aggregate flexibility	Aggregate precariousness	Regression coefficient * $P\{H_0\} > 0.05$
	Mean score, %	Mean score, %	
NL (877) Netherlands	30 / 20 −15 / 13	54 / 25 −110 / 27	0.17 / 6 0.07* / 12
AT (842) Austria	31 / 11 −39 / 22	55 / 23 −16 / 20	0.03* / 30 0.01* / 28
PL (793) Poland	31 / 8 10 / 10	57 / 7 99 / 5	0.21 / 2 0.05* / 18
PT (788) Portugal	31 / 10 −32 / 20	56 / 15 49 / 12	0.16 / 10 0.14 / 2
SI (500) Slovenia	31 / 13 24 / 8	55 / 22 −13 / 19	0.08* / 18 0.03* / 23
SK (860) Slovakia	31 / 14 43 / 6	56 / 17 69 / 6	0.11 / 13 0.02* / 26
FI (911) Finland	32 / 7 28 / 7	54 / 26 −129 / 28	0.10 / 15 0.05* / 17
SE (951) Sweden	29 / 28 −79 / 27	55 / 21 −72 / 25	0.17 / 8 0.12 / 5
UK (876) United Kingdom	32 / 6 −7 / 11	56 / 14 54 / 9	0.06* / 23 0.07 / 10
BG (954) Bulgaria	30 / 17 −70 / 25	56 / 12 51 / 11	0.16 / 11 0.09 / 9
HR (816) Croatia	30 / 19 −17 / 14	56 / 18 41 / 13	0.20 / 3 0.12 / 4
RO (798) Romania	30 / 16 −25 / 16	57 / 6 103 / 4	0.10 / 16 0.06* / 14
TR (454) Turkey	43 / 1 297 / 1	60 / 1 182 / 1	0.04* / 28 0.04* / 20
NO (846) Norway	29 / 25 −31 / 19	53 / 30 −271 / 31	0.28 / 1 0.14 / 3
CH (831) Switzerland	28 / 29 −79 / 26	54 / 27 −195 / 30	−0.00* / 31 −0.06* / 31

7 References

Bossel, H. (1999) *Indicators for Sustainable Development: Theory, Method, Applications.* Winnipeg, Manitoba, Canada, International Institute for Sustainable Development.

Braun, T. (2001) Flexibilität und Soziale Sicherung in Dänemark unter besonderer Berücksichtigung von aktiver Arbeitsmarktpolitik und Weiterbildung. In: Klammer, U., and Tillmann, K. (Eds.) *Flexicurity: Soziale Sicherung und Flexibilisierung der Arbeits- und Lebensverhältnisse.* Düsseldorf, Hans Böckler Stiftung, 637–677.

Bredgaard, Th., Larsen, F., and Madsen, K. (2005) Opportunities and challenges for flexicurity — the Danish example. *Transfer*, 12 (1), 61–82.

EIRO (2007) *European Industrial Relations Observatory On-Line.*
http://www.eurofound.europa.eu/eiro

European Commission (2002) Methodology of Composite Indicators. In: *Towards a European Research Area "Science, Technology and Innovation": Key Figures 2002.* DG RTD publication, 79–84.
http://europa.eu.int/comm/research/era/pdf/benchmarking2002_en.pdf.

European Commission (2005) *Employment in Europe 2005.* Luxemburg, European Communities

European Commission (2006a) *Informal Council — Employment and Social affairs.* Villach (19-21 January 2006)
http://ec.europa.eu/employment_social/emplweb/news/news_en.cfm?id=115

European Commission (2006b) *Employment in Europe 2006.* Luxemburg, European Communities

European Commission (2006c) *Green Paper: Modernising labour law to meet the challenges of the 21st century.* Brussels, 22.11.2006, COM (2006) 708 final
http://ec.europa.eu/employment_social/labour_law/docs/2006/green_paper_en.pdf

European Foundation (1997) *Indicators of Working Conditions in the European Union*, by S. Dhondt and I. Houtman. Dublin, European Foundation for the Improvement of Living and Working Conditions.

European Foundation (2007a) *4th European Working Conditions Survey.* Dublin, European Foundation for the Improvement of Living and Working Conditions.

European Foundation (2007b) *Industrial Relations in EU Member States 2000-2004.* Dublin, European Foundation
http://www.eurofound.europa.eu/pubdocs/2007/15/en/1/ef0715en.pdf

Eurostat (2005) *Labour Force Survey.* Luxemburg, European Communities.
www.europa.eu.int/comm/eurostat

Gorter, C. (2000) The Dutch Miracle? In: G. Esping-Andersen and M. Regini (Eds.) *Why deregulate markets?* New York, Oxford University Press, 181–210.

ILO (1999) *Report of the Director-General: Decent Work.* Geneve, ILO. http://www.ilo.org/public/english/standards/relm/ilc/ilc87/rep-i.htm

Jespen, M., and Klammer, U. (Eds.) (2004) *Transfer*, 10 (2) (special issue "Flexicurity: Conceptual issues and political implementation in Europe").

Keller, B., and Seifert, H. (2004): Flexicurity—the German trajectory, *Transfer*, 10 (2), 226–247.

Keller, B., and Seifert, H. (2006) Atypische Beschäftigungsverhältnisse: Flexibilität, soziale Sicherheit und Prekarität. *WSI Mitteilungen*, 5/2006, 235–240.

Kendall, M. G., and Moran, P. A. P. (1963) *Geometric Probability.* New York: Hafner, 1963.

Keune, M., and Jepsen, M. (2007) *Not balanced and hardly new: the European Commissions quest for flexicurity.* Brussels, European Trade Union Institute for Research, Education and Health and Safety (ETUI-REHS), Working Paper 2007.01.

Kok, W., et al. (2004) *Jobs, Jobs, Jobs. Creating more employment in Europe. Report of the Employment Task Force.* Luxembourg, European Communities.

Madsen, P.K. (2004) The Danish model of 'flexicurity'. *Transfer*, 10 (2), 187–207.

Marx, K. and Engels, F. (1848) *Manifesto of the Communist Party.* (New York, Penguin, 1998) http://www.marxists.org/archive/marx/works/1848/communist-manifesto/index.htm

Munda, G., and Nardo, M. (2003) *On the Methodological Foundations of Composite Indicators Used for Ranking Countries.* Ispra (IT), Joint Research Center. http://webfarm.jrc.cec.eu.int/uasa/events/oecd_12may03/Background

OECD (1989) *Labour Market Flexibility. Trends in Enterprises.* Paris, OECD.

OECD (1999) *Employment Outlook.* Paris, OECD.

OECD (2002) *Aggregated Environmental Indices:Review of Aggregation Methodologies in Use.* ENV/EPOC/SE(2001)1/Final. Paris, OECD. http://www.olis.oecd.org/olis/2001doc.nsf/LinkTo/env-epoc-se(2001)2-final

OECD (2003) *Composite Indicators of Country Performance: A Critical Assessment.* DSTI/DOC (2003)16. Paris, OECD. http://www.olis.oecd.org/olis/2003doc.nsf/43bb6130e5e86e5fc12569fa005d004c/8bb0f462911c2cc6c1256ddc00436279/$FILE/JT00153477.PDF

OECD (2004) *Employment Outlook.* Paris, OECD.

OECD (2005) *PISA: Program for International Student Assessment.* http://www.pisa.oecd.org/pages/0,2987,en_32252351_32235731_1_1_1_1_1,00.html

Pastille (2002) *Indicators into Action: A Practitioners Guide for Improving Their Use at the Local Level.* Vienna–Winterthur–Lyon–London–Graz–Zurich.

Prohorov, A.V. (1984) Regression analysis. *Mathematical Encyclopedia, Vol. 4.* Moscow, Soviet Encyclopedia, 926–934.

Saisana M., Saltelli A., Tarantola S. (2005) Uncertainty and Sensitivity analysis techniques as tools for the quality assessment of composite indicators. *Journal of the Royal Statistical Society - A*, 168(2), 307-323.

Saltelli, A. (2003a) (Ed.) *First Workshop on Composite Indicators of Country Performance, Ispra (VA), Italy, May 12th, 2003.* Ispra, Joint Research Centre of the European Commission.
http://webfarm.jrc.cec.eu.int/uasa/index.asp?app=jrc&prj=frames/&sec=home&dic=1&mode=6&mn=6&head=8&swebSite=/uasa/&menuopen=1&start=yes

Seifert, H. (2007) Flexicurity. Paper at the Seminar *Flexicurity: A New Departure for European Social Policy?* London, May 25, 2007. The Work Foundation, Policy Network and Friedrich Ebert Foundation.

Seifert, H., and Tangian, A. (2006) *Globalization and deregulation: Does flexicurity protect atypically employed?.* WSI Diskussionspapier 143, Hans Böckler Stiftung, Düsseldorf, 22 pp.
http://www.boeckler.de/pdf/p_wsi_diskp_143.pdf

Sendzimir, J. (2004) A Guide to Sustainability Indicators: A General Introduction and Overview. International Institute of Applied Systems Analysis, Laxenburg, Austria.

Schmid, G., and Gazier, B. (Eds.) (2002) *The Dynamics of Full Employment: Social Integration Through Transitional Labour Markets.* Cheltenham, Edward Elgar.

Tangian A.S. (2005) *A composite indicator of working conditions in the EU-15 for policy monitoring and analytical purposes.*. WSI Diskussionspapier 135, Hans Böckler Stiftung, Düsseldorf, 77 pp.
http://www.boeckler.de/pdf/p_wsi_diskp_135_e.pdf

German version: *Ein zusammengesetzter Indikator der Arbeitsbedingungen in der EU-15 für Politik-Monitoring und analytische Zwecke.* WSI Diskussionspapier 135D, Hans Böckler Stiftung, Düsseldorf, 80 pp.
http://www.boeckler.de/pdf/p_wsi_diskp_135_d.pdf

Tangian A.S. (2006) *European flexicurity: concepts (operational definitions), methodology (monitoring instruments), and policies (consistent implementations).* WSI Diskussionspapier 148, Hans Böckler Stiftung, Düsseldorf, 60 pp.
http://www.boeckler.de/pdf/p_wsi_diskp_148_e.pdf

Tangian A.(2007a) Analysis of the third European survey on working conditions with composite indicators. *European Journal of Operational Research*, 181, 468–499.

Tangian A.S. (2007b) European Flexicurity:Concepts, Methodology and Policies. *Transfer,* 13(4) (Forthcoming).

Tangian A.S. (2007c) *Flexibility-Flexicurity-Flexinsurance: Response to the European Commission's Green Paper "Modernising Labour Law to Meet the Challenges of the 21st Century".* WSI Diskussionspapier 149, Hans Böckler Stiftung, Düsseldorf, 36 pp.
http://www.boeckler.de/pdf/p_wsi_diskp_149_e.pdf

Trio Presidency Discussion Paper on Flexicurity (2007). Berlin

van Oorschot, W. (2001) Flexibilität und soziale Sicherung in den Niederlanden — Politik für Arbeitnehmer und Versorgungspersonen. In: Klammer, U., and Tillmann, K. (Eds.) *Flexicurity: Soziale Sicherung und Flexibilisierung der Arbeits- und Lebensverhältnisse.* Düsseldorf, Hans Böckler Stiftung, 519–584.

Vielle, P., and Walthery, P. (2003) *Flexibility and Social Protection.* Dublin, European Foundation for the Improvement of Living and Working Conditions.

Wilthagen, T., and Tros, F. (2004): "The concept of 'flexicurity': a new approach to regulating employment and labour markets", *Transfer*, 10 (2), 166–186.

WSI (2000) *"Flexicurity" — Arbeitsmarkt und Sozialpolitik in Zeiten der Flexibilisierung.* Special Issue of the *WSI Mitteilungen*, 5/2000.