

Job quality in Europe

Janine Leschke and Andrew Watt

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European Trade Union Institute
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List of abbreviations

AMECO: annual macro-economic database of the European Commission's Directorate General for Economic and Financial Affairs (DG ECFIN)

ELNEP: European Labour Network for Economic policy

(EU) LFS: European Union labour force survey

EU-SILC: European Union Statistics on Income and Living Condition

EWCS: European Working Conditions Survey

ICTWSS: Data Base on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts

JQI: Job Quality Index

NCE: nominal compensation per employee

NMS: new member states

PPS: purchasing power standard

1. Brief justification for the JQI and its component indicators

The Lisbon Strategy, launched in 2000, called for creating ‘more and better jobs’ in Europe. The targets in terms of ‘more jobs’ are employment rates of 70%, 60% and 50% for total employment, women and elderly workers respectively by 2010. And indeed some progress has been achieved in bringing more Europeans into paid employment and in cutting unemployment rates.

The goal of ‘better jobs’, on the other hand, has been less ardently pursued. In fact, there is a widespread perception that many of the new jobs being created are ‘bad jobs’. Increasingly workers are being asked, or forced, to work longer and/or more ‘unsocial’ hours, and to accept non-standard employment contracts. Partly this reflects structural shifts in the economy, but employers are widely seen as being more short-term in orientation, cutting back on investing in training the workforce, offering limited career trajectories and employee benefits, and being less open to engaging with collective forms of worker interest representation.

Against this background our job quality index (JQI) is an attempt to shed some light on the question whether the goal of ‘more jobs’ has been pursued at the cost of ‘better jobs’ and how European countries compare with each other in regard to job quality.

Since job quality is a multifaceted phenomenon the JQI is a composite of different fields or sub-indices that capture various dimensions of job quality. The choice of these fields, the underlying indicators, the data sources and the methodologies used to arrive at a single index for each country year and gender have been described in detail in an earlier publication (Leschke/Watt/Finn 2008), which is available on-line and to which the interested reader is referred.¹ The focus here is on presenting and interpreting the results. We start with a summary introduction to the JQI here, and provide a brief description of the indicators as a preface to the discussion of the results for each sub-index (sections 2.1-2.7). In section 3 we shift the focus and discuss the findings in terms of country profiles and country clusters.

The JQI consists of six sub-indices, namely wages, non-standard forms of employment, work-life balance and working time, working conditions and job security, access to training and career advancement, and collective interest representation and voice/participation. All six sub-indices are made up of at least two weighted indicators, some of which are themselves composites. The data are taken from various data sources and are inverted where necessary to fit the logic of a higher number indicating better job quality. Each indicator is normalised on a range between zero and one, where zero is the worst and one the best-performing country. By using the results for ‘total’ for the normalisation of the gendered data, gender comparisons are possible. The overall JQI is an unweighted average of the six sub-indices.

¹ There are two very minor methodological changes compared with the description there. In the wages sub-index the in-work poverty indicator is not gendered. And a very minor weighting was used to calculate the overall JQI from the six sub-indices to allow for the fact that the average score on the sub-indices differs slightly.

The JQI covers the EU27 countries and the indicators were selected in such a way that it allows gender comparisons and comparisons over time going forward. Our interest in having a quantitative indicator that can be regularly updated and is comparable over time necessitated some compromises in terms of thematic coverage and depth. Particularly in the case of collective interest representation this makes cautious interpretation of the results necessary. „Due to data restrictions backward-looking comparisons over time are only possible for the EU15 countries. The results of this comparison, which uses slightly different indicators in some sub-indices, are not reported here. The interested reader is referred to ELNEP 2008 and HBS 2008.

The results that are presented below are based on the most recent data available in early 2008 – mostly 2006 data. EU15 and EU27 averages as displayed in the following figures are weighted by population size. It is important to note that the JQI deliberately focuses on the quality of the employment relationship itself and not on the wider welfare state (the generosity of benefits, for instance) or overall labour market performance (measures of productivity or unemployment). Clearly such factors contribute to what one might term the ‘quality of life for working people’. However once one begins to incorporate such factors, it becomes even more difficult to delineate the field of interest; already we have had to use broader indicators (such as collective bargaining coverage) because we cannot easily measure the voice/participation dimension of job quality. An extension towards a broader ‘workers’ welfare index’ is a possible area for further work.

2. Results by sub-index

2.1. Wages

Wages are arguably the most important field in regard to job quality. In some national studies wages are indeed considered as a proxy for occupational job quality. They not only influence people’s current income situation, and thus their scope to obtain material goods and also the extent to which they can participate in society. They also have longer-term influences in that social security benefits and pensions are usually at least to some extent based on former wages. What is important for the worker’s welfare is the purchasing power of the wage earned. The indicator is based on the AMECO series nominal compensation per employee (NCE), which is readily available and comparable. The figures are expressed in current-year purchasing power standard (PPS), which takes account of the differences in purchasing power between countries.

A number of potentially limiting features of the NCE indicator should be noted. Firstly it includes employer and employee social insurance contributions, and so does not measure direct purchasing power. To some extent the contributions constitute a ‘social wage’ that, in the form of benefits and pensions, contributes to workers’ collective welfare. In comparative perspective, however, the results can be sensitive to differences in the way that social insurance systems are financed. Secondly, the figures are only available ‘per employee’ and thus are influenced by differences in the incidence of part-time work. Thirdly, they are not available by gender. The size of the gender pay gap (available from Eurostat, based on hourly figures) is used to calculate an approximation to male and female wages. The resulting indicator is not entirely satisfactory, but is, we believe, the best available proxy for this important variable given the demands of the data that result from the way the JQI is constructed (cross-country and over-time comparison).

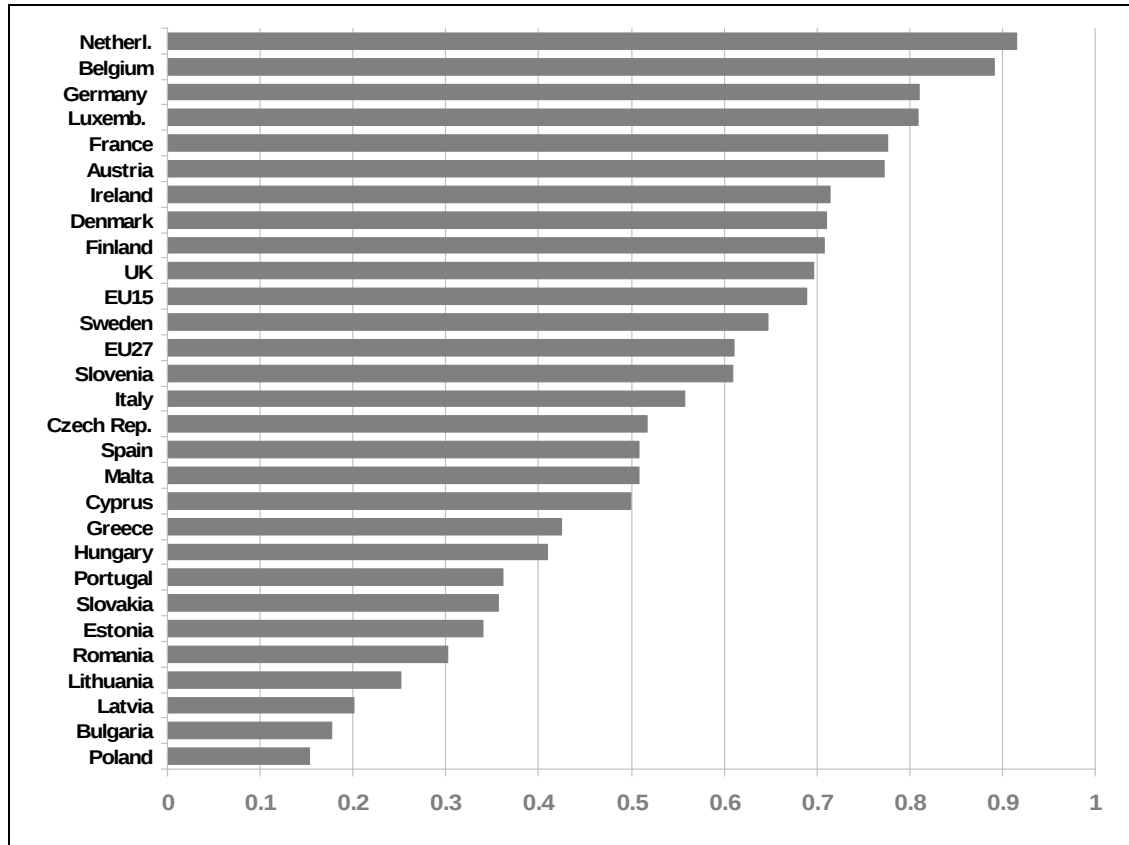
In addition to average purchasing power from wages, it is desirable to adjust for equity and distributional concerns. The same average wage figure should be ‘worth’ less, in our normative assessment, if it is associated with greater wage inequality, and particularly a greater incidence of relative poverty of those in work. We seek to capture this by including an indicator of the share of working poor in the employed population, defined as those individuals who are classified as employed and whose household equivalised disposable income is below 60% of national median equivalised income (Eurostat). This measure is focused only on people in work and to this extent picks up this aspect of job quality. However, the indicator takes into account the household size, and as such is sensitive to composition effects. For this reason and also because of rounding effects the in-work poverty component is not disaggregated by gender. The indicator includes the impact of taxes, social insurance contributions and benefits. While this clearly extends beyond a narrow definition of ‘job quality’ we lack an alternative indicator that only relates to those in work. The two indicators are weighted 70/30 to arrive at the ‘wages’ sub-index.

Overall outcomes

Only at a very general level does the overall ranking of countries conform to expected patterns: reading from the bottom, the eastern European NMS are followed by southern countries, with the top positions taken by the EU15 countries. Taking a closer look, however, reveals some interesting patterns, not least against the background of rankings by GDP/capita. The continental/corporatist countries outperform the Nordic countries which in turn do better than the two Anglo-Saxon countries.

Notable is the good performance of the Netherlands and Belgium, which top the scale. This compares with only fifth and ninth position respectively in terms of GDP/capita (at exchange rates); part of the explanation seems to be the relatively low cost of living compared with other high wage countries. The pole position for the Netherlands is all the more surprising given the high incidence of part-time work. To some degree the better performance of a number of continental European countries (including Germany in third place) compared with their Nordic counterparts may reflect differences in the way that social security systems tend to be financed in the two sets of countries. To the extent that wage-linked social insurance contributions are used, earnings will be inflated (compared with a measure of disposable purchasing power by workers) while financing via indirect taxation will, other things equal, push up the price level and thus depress the purchasing power of wages captured by the PPS indicator used here.

In Belgium, low participation rates mean that high per capita wages are needed to obtain only moderately high per capita income levels. The same is true in Germany, whereas the reverse is true of the Nordic countries. Belgium and Germany also performed well on the in-work poverty measure. It was its rather high figure for this measure of inequality that pushed Luxembourg off the top slot it would have held based on wages alone. Similarly, high in-work poverty in the southern European countries pulled them below the better-performing of the NMS, which exhibit greater wage equality on this measure. Among the NMS, the impact of the much wider inequality in Poland than in Romania means that the former comes in last in the ranking, whereas Romania is fifth from last, despite having lower wages (in PPS) than Poland.

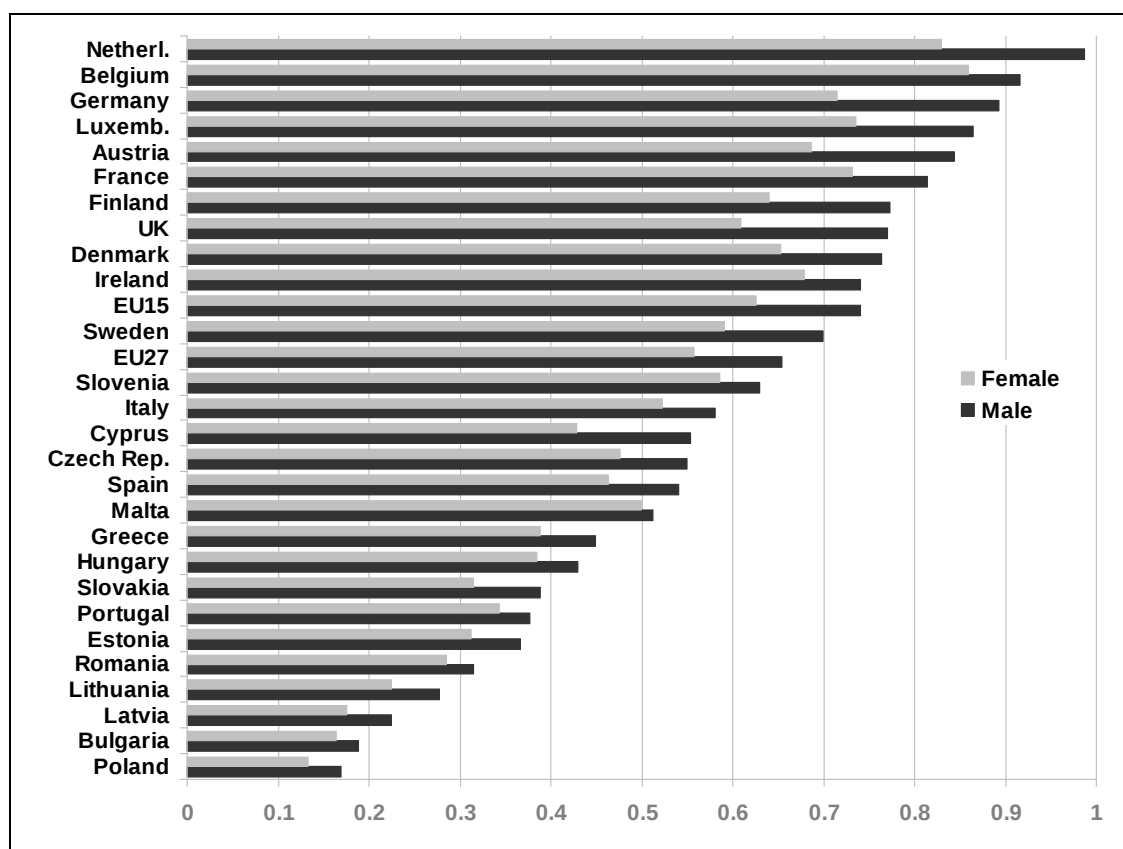
Figure 1: Wages, 2006

Source: own calculation. Includes information on nominal compensation per employee and in-work poverty.

Gender differences

The gender differences – which reflect solely the hourly gender pay gap – indicate, unsurprisingly, consistently higher ‘job quality’ for men in terms of the wage dimension across the whole range of countries. In all European Union countries men earn more than women per working hour on average. As a rough intuitive guide to the importance of this phenomenon we can see, reading the gender graph from bottom to top, that men typically get a similar score to women in countries that are between one and three notches higher up the ranking. For instance men in Luxembourg (4th place) have a higher score than women in even the best-performing country. Conversely, women in Germany and Luxembourg (in 3rd and 4th place respectively in the male rankings) are below the EU15 average score for men.

Referring back to the underlying gender pay-gap data, it is not easy to make out clear regional patterns regarding the extent of hourly pay inequality between the sexes. If we break the 27 countries into three equal-sized groups with low, medium and high gender pay inequality, we find Anglo-Saxon and corporatist-conservative countries in both the top and bottom groups. Perhaps surprisingly, the southern countries are grouped in the lower-middle and the Nordic countries in the higher-middle in terms of gender pay inequality. The NMS are spread across all groups, but concentrated in the middle group.

Figure 2: Wages by gender, 2006

Source: own calculation. Includes information on nominal compensation per employee and in-work poverty.

Interpretation

Overall the results seem plausible. The in-work poverty measure is rather crude (only whole percentage figures being available). Together with the impact of price levels, and employment rates, the inclusion of the (normative) aspect of boosting the score of countries that limit the extent of (relative) in-work poverty means that this indicator differs quite considerably from per capita GDP (at exchange rates) measures and paints a plausible picture of job quality along the wages dimension between European countries. One concern is the impact of the mode of financing social insurance systems. Due to the necessary inclusion of employer and employee social insurance contributions our measure may well boost the score of corporatist countries while depressing that of the Nordic countries, to the extent that their systems rely on, respectively, wage-linked social insurance contributions and indirect taxes. Note, however, that income taxes (which are also used as a source of finance for social policy in many countries, including Anglo-Saxon ones) are also included in the NCE measure.

2.2. Non-standard forms of employment

Non-standard forms of employment have been high on the agenda in European countries and on the EU level because they are thought to improve employment opportunities of certain labour market groups. In fact they have accounted for a large part of the recent job growth (European Commission 2006: 24). Previous research has shown, though, that forms of non-standard employment can be highly problematic in

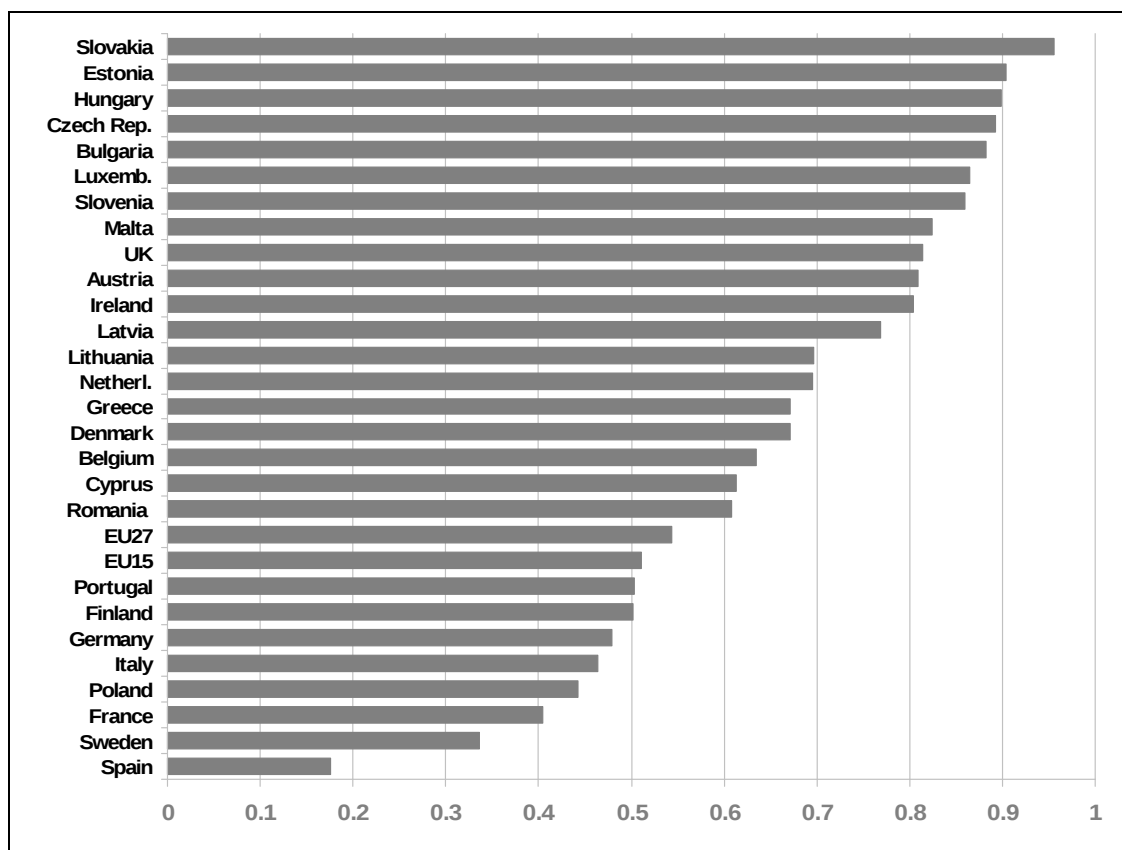
terms of job quality in that they are often accompanied by lower job security, reduced access to both statutory and employer-provided social security benefits, and disadvantages in access to firm-related training (Eurofound 2003; Leschke 2007; OECD 2002). Since their forms are manifold – including fixed-term and casual employment, temporary agency work, part-time employment and own-account self-employment, and because the underlying reasons for taking up these employment forms not only vary between the different forms of non-standard employment but also between different labour market groups, we have adopted a cautious strategy in putting together this sub-index. The share of the total number of employees that is employed on temporary contracts² or part-time in the single countries is multiplied by the proportion of those workers who indicate as the main reason for taking up non-standard employment that they could not find a permanent, or respectively, full-time job. In other words this sub-index considers only *involuntary* part-time and temporary employment. Indeed voluntary part-time work is seen as contributing positively to job quality (see below under work-life balance). All indicators of this sub-index are taken from the European labour force survey. The two components are inverted and given equal weight.

Overall outcomes

The spread on this sub-index is large, with the best performing country, Slovakia, receiving a score of 0.96 and the worst performing country, Spain, a score of only 0.18 (compare figure 3), suggesting, at least at the extremes, positive correlation between the incidences of involuntary part-time and temporary contracts. The results for Spain – whose score is far below all the other countries, are strongly driven by its extremely high share of temporary workers in total employment (only Poland comes close to Spain in this regard). Furthermore it is the country with the highest share of *involuntary* temporary employment. Spain's part-time employment rate is in fact below average but the incidence of involuntariness is again above average. Sweden which ends up second-worst has a pattern where involuntariness is close to the EU27 average but shares of non-standard employment are above average on both indicators. Slovakia, the best performer, on the other hand, has part-time and temporary employment rates that are well below the EU27 average. The shares of involuntary temporary employment are above average those for part-time employment below average. Both Estonia and Hungary, the second and third best performers have similar profiles as Slovakia.

There is a clear regional division on this sub-index. Among the eight best performing countries there is only one old member state, namely Luxembourg, whereas among the eight worst performers there is only one new member state, Poland.

² In the European labour force survey, a job is regarded as temporary if it is understood by both employer and the employee that the termination of the job is determined by objective conditions such as reaching a certain date, completion of an assignment or return of another employee who has been temporarily replaced. Included in this group are persons with a seasonal job, persons engaged by an employment agency or business and hired out to a third party for the carrying out of a "work mission" (unless there is a work contract of unlimited duration with the employment agency or business), persons with specific training contracts of limited duration (European Commission 2007: 52, 53).

Figure 3: Non-standard forms of employment, 2006

Source: own calculation. Includes information on shares of involuntary part-time and temporary employment.

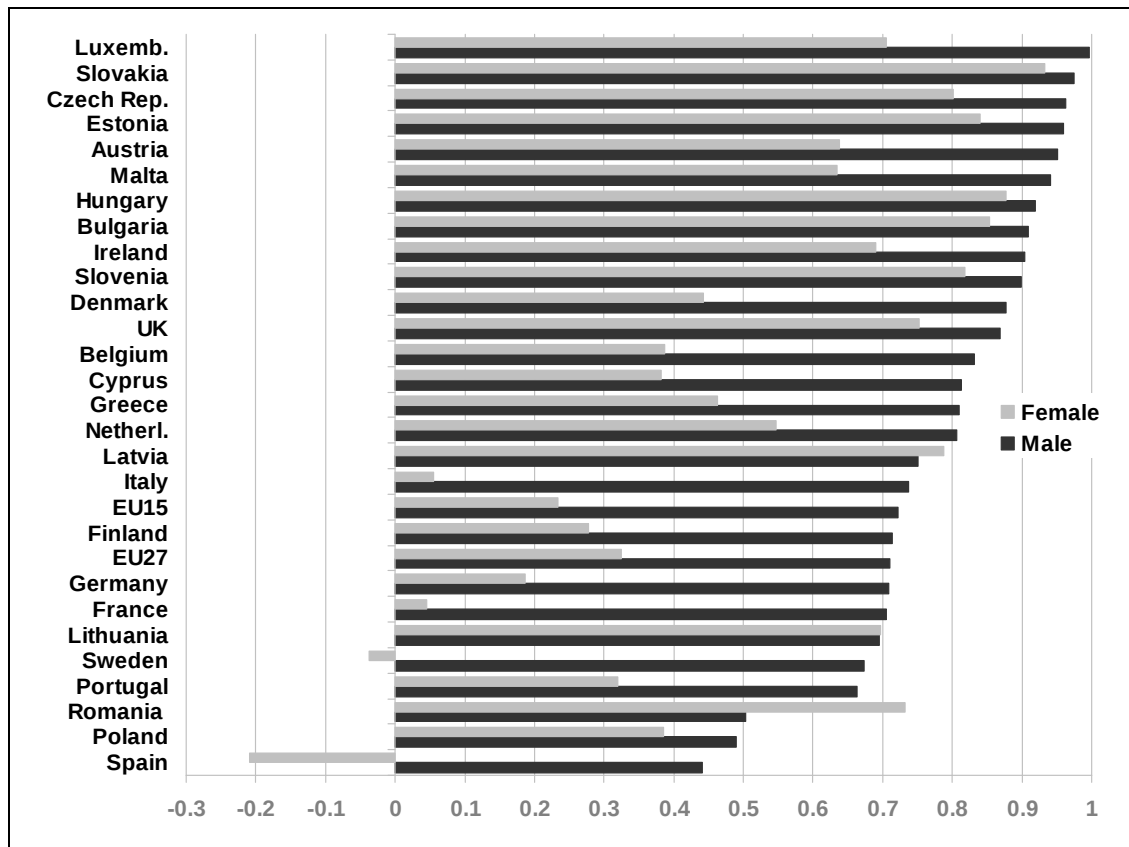
Gender differences

Gender differences are particularly pronounced on this sub-index, especially in a number of southern countries (Italy, Spain, also France) and Sweden. Overall men score considerably better than women, and the distribution between the best and the worst country is much closer among men than women (Figure 4). Indeed in two countries (Spain and Sweden) women's score is actually negative, implying substantially poorer performance than the total (men plus women) score for the worst-performing country. The gender difference is much more strongly driven by the differences in part-time employment shares – the EU27 average is 6.9% for men and 30.7% for women, with men working part-time being more likely to do so involuntarily – than by the differences in temporary employment where the rate of women is on EU27 average only one percentage point higher. (Among those employed on a temporary contract women are slightly more likely to be so involuntarily.) Men are in fact better off on this measure in all but 3 countries, Latvia, Lithuania and Romania. In those three countries part-time and temporary employment rates either hardly differ between men and women (Romania) or women are somewhat more likely to work part-time whereas men are more likely to hold a temporary contract (Latvia and Lithuania). Furthermore, in all three countries the incidence of involuntariness is higher for men.

Although many countries display large gender differences, four are especially striking in this regard: Sweden, France, Italy and Spain. All these countries have very poor outcomes for women and – except for Italy – also outcomes for men that are below the EU average. In all four countries women have much higher shares in non-standard

employment than men, whereas the question if non-standard employment is exercised involuntarily or not seems to be less decisive.

Figure 4: Non-standard forms of employment by gender, 2006



Source: own calculation. Includes information on shares of involuntary part-time and temporary employment.

Interpretation

Large gender differences on this indicator were to be expected due to the well-known very different incidence of men and women in part-time employment. Similarly, the regional division is not surprising given the much lower importance of part-time work in new member states. In 2007, except for Malta which is somewhat above this level, all new member states have part-time employment shares of less than 10% whereas the EU15 average is above 20%. Among the old member states part-time employment rates are lowest in the Southern European countries and by far highest in the Netherlands. One explanation for the division between new and old member states is that part-time employment is less of an option in the new member states where two full-time incomes are needed to get by, but traditions and established norms are likely to be key. As concerns temporary employment again nine of the new member states together with the United Kingdom display the lowest shares (below 8%) whereas the EU15 average lies at almost 15%. Poland and Spain with rates of 28 and 32% have by far the highest shares of temporary employment in the European Union. The shares of temporary employment are of course strongly influenced by employment protection legislation (EPL) on permanent contracts, which is known to be much lower in most new member states than in old ones. But also between the old member states there are large country differences. According to the OECD summary indicator on employment protection

legislation, countries such as the UK, Ireland and Denmark display comparatively low overall EPL whereas Portugal and Spain have the highest overall EPL scores (OECD 2004: 112). To that extent our indicator, which does not include EPL – not least because of the numerous critiques of the available EPL measures – may disadvantage countries with strong EPL on permanent contracts but extensive use of temporary contracts (see also the sub-index ‘working conditions and job security’ below, which includes a subjective measure of perceived job (in)security).

As concerns involuntariness of part-time employment there are no clear regional patterns. An interesting finding is that some of the countries with very low part-time employment shares display high shares of involuntary part-time employment (e.g. Bulgaria, Romania and Greece) whereas the share of people that reports involuntary part-time is very low in some of the countries with the highest part-time employment rates (e.g. UK and Netherlands). This suggests the importance of social norms about what desirable working hours are and the flexibility on the part of employers in offering different schedules to workers (see also the next sub-index). Involuntariness in temporary employment is not only much higher but also more clearly divided. Nine out of the 12 NMS report higher than average shares of involuntary temporary employment whereas this is true for only six out of 15 old member states.

2.3. Working time and work-life balance

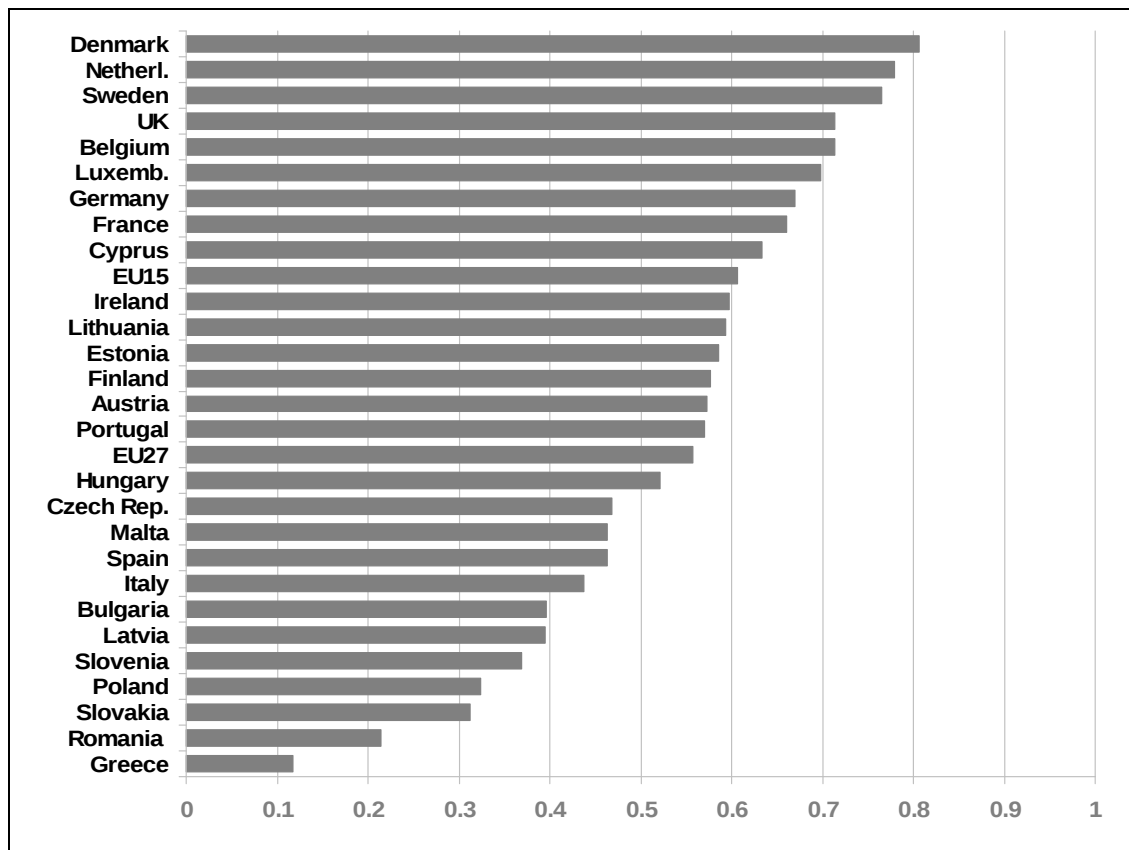
The sub-index on working time and work-life balance is made up of the following indicators: excessive working hours and atypical working hours (available in the LFS), voluntary part-time employment (available in the EU-SILC), and the share of workers that agree that their working hours fit family or social commitments (available in the EWCS). Atypical working hours (a composite indicator of the proportion of workers on shift work, Saturday work, Sunday work, night work and evening work) as well as excessive working hours (the share of workers who usually work more than 48 hours a week) are known to have deleterious effects on work-life balance and health (Eurofound 2006a). Voluntary part-time employment (defined as all part-time workers that declare that their reason for working less than 30 hours is that they do not want to work more hours), on the other hand, is included as a ‘positive’ indicator in this sub-index, as surveys suggest that those who work part time voluntarily are satisfied with their work-life balance (European Commission 2001: 68). This indicator is supplemented by the share of workers that state that their working hours fit family or social commitments, an indicator that directly measures work-life balance. The first two indicators are inverted and each one of the four indicators gets the same weight in the sub-index.

Overall outcomes

The spread on the working time and work-life balance sub-index is once again large, ranging from 0.12 in Greece to 0.81 in Denmark (Figure 5), despite the inclusion of four indicators, some of which are composites. As with the sub-index on non-standard employment we see a regional spread here; however, this time a mixture of Nordic, Anglo-Saxon and corporatist, old member states are followed by both the southern ones and the NMS. In fact, among the 10 best performers there is only one new country, Cyprus. On the other hand, among the 10 worst performers there are only three old member states, all of them southern European (Greece, Italy and Spain). Greece actually performs by far worst, followed by Rumania which also scores well below the other countries.

The best performers are Denmark, the Netherlands and Sweden. The three best performers and the two worst performers vary markedly on all four indicators making up the sub-index, least so on atypical working times, where Greece and Rumania actually figure somewhat above the EU27 average, together with the Netherlands; but even here Denmark and especially Sweden are well positioned. Particularly on excessive working hours there is a strong dichotomisation between the best and worst performers: Greece and even more so Rumania perform by far worst of all EU member states with about 1/3rd or more of workers working excessive hours. The shares in Denmark, the Netherlands and Sweden lie around 10%, substantially below the EU27 average of 15%. A similar dichotomisation is evident for the indicator that captures voluntary part-time employment. The last indicator making up this sub-index shows rather smaller country differences: whereas in Greece fewer than 60% of workers think that their working hours fit in with family/social commitments in Denmark 88% of workers confirm this statement.

Figure 5: Working time and work-life balance, 2005/2006



Source: own calculation. Includes information on excessive working hours, atypical working hours (both inverted), voluntary part-time work and “working hours fitting in with family/social commitments”.

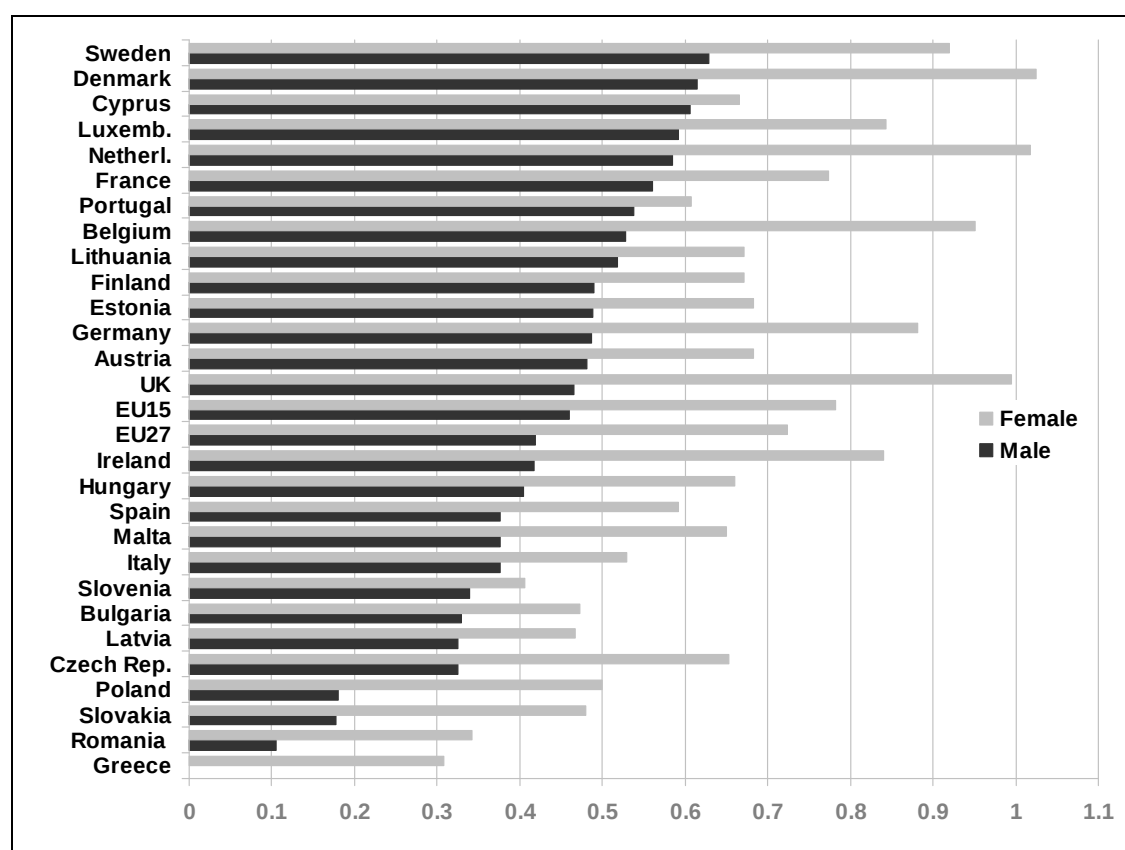
The regional distribution is strongly driven by the indicators on excessive working hours (inverted), voluntary part-time work and working hours fit family/social commitments. On all of these indicators Northern and continental European countries for the largest part are above average and Eastern and Southern ones on average or below. The distribution on atypical working time is much less clear.

Gender differences

On the working-time and work-life balance sub-index women do much better than men in all countries; the gender differences are least pronounced in Cyprus, Portugal and Slovenia (Figure 6). The underlying data shows that the strong gender division is driven by all indicators of this sub-index, but most strongly by excessive working hours, where in most countries the difference between men and women is at least 10 percentage points, and voluntary part-time employment, where (except for Romania) women always get a higher score. On the latter indicator country differences are much larger for women (0.2 in Slovenia to 18.2 in the Netherlands) than for men (0 in Slovenia to 5.1 in the Netherlands). Atypical working hours with averages of 15.9 for women and 18.3 for men and “working hours fit in with family/social commitments” with averages of 83.0 (women) and 76.6 (men) also contribute to the gender difference in this sub-index but on these two indicators there are several exceptions to the rule where men have the same or better outcomes than women.

The gender gap is particularly large in the UK (and to a lesser extent Ireland), but also Denmark, the Netherlands and Belgium. One reason is, as discussed in the previous section, the greater role of part-time work among women, a (varying) proportion of which is voluntary. Some, but not all, of the NMS, have rather small gender gaps.

Figure 6: Working time and work-life balance by gender, 2005/2006



Source: own calculation. Includes information on excessive working hours, atypical working hours (both inverted), voluntary part-time work and “working hours fitting in with family/social commitments”.

Interpretation

The results on this sub-index are in line with results from other sources on work-life balance. In all countries men perform worse than women in regard to work-life balance especially due to their tendency to work long hours and the small numbers working (voluntarily) part-time. Denmark, Sweden and the Netherlands are well known for their success in promoting work-life balance – in fact, they are the countries with the highest female employment rates in the EU. They facilitate work-life balance through comparatively low average working hours, part-time work (especially the Netherlands) and flexible working-time arrangements such as flexible start and end times and working time accounts (especially Sweden and Denmark) (cf. Eurofound 2008; Leschke and Jepsen, 2008). In addition, they provide high child-care coverage particularly for very small children (especially Denmark) and thereby allow mothers a quick return to the labour market; this indicator has not been taken account of here since it is not directly work-related. In contrast, the Southern European countries except for Portugal have been singled out in research studies as those countries with the largest problems in balancing work and life; against the background of poor collective child-care provision this manifests itself not only in very low female employment rates but also low fertility rates (OECD 2007, chapters 2 and 3). In the case of the NMS the observed patterns most probably reflect a persistence of a two-full-time-earner model that had traditionally been supported by social institutions (such as child-care organised directly by employers).

It is important not to misconstrue the finding that women substantially out-perform men on this measure, which focuses on job characteristics *given existing* social institutions (such as child care) and social norms, in particular those regarding, unpaid work in the household. Deficiencies in these institutions and the unequal distribution of responsibilities outside paid work mean that, on average and to varying degrees in different countries, women are much more likely to take jobs that offer the scope for ‘work-life balance’. Such choices usually incur a penalty in terms of pay and career possibilities, as is well shown by other dimensions of the JQI.

2.4. Working conditions and job security

Another important field to assess job quality is working conditions and job security. Four indicators that try to capture the situation in the industrial as well as in the services sector are used for this sub-index: work intensity, work autonomy, physical work factors and the reported likelihood of job loss within the next six months. All four indicators are available in the EWCS, the first three are simple averages of a number of component indicators, the fourth is a stand-alone indicator. Intensity of work is made up of information on the proportion of workers ‘working at a very high speed’, ‘working to tight deadlines’ and ‘not having enough time to get the job done’. Work autonomy comprises information on the proportion that can ‘choose or change the order of tasks, the methods of work and the speed of work’. Physical work factors include information on the exposure to a whole range of factors detrimental to job quality. The four indicators are accorded equal weight.

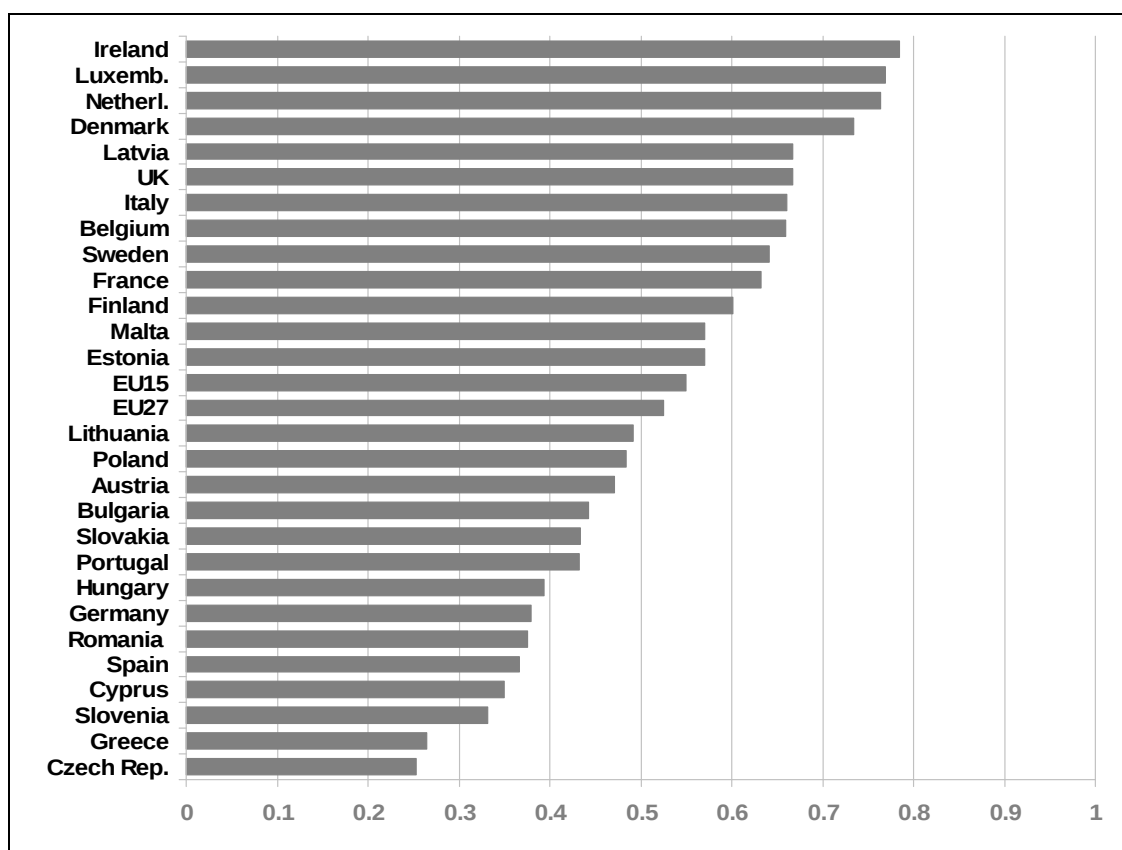
Overall outcomes

The range of this sub-index is smaller than the ones of the preceding three sub-indices (Figure 7), reflecting the large number of individual indicators and, apparently, a limited correlation between them. The worst performing country, Czech Republic, gets

a score of 0.25, the best performing country, Ireland, of 0.78. As on the work-life balance sub-index, among the 10 countries that perform best there is only one new member state, namely Latvia, whereas the 10 worst performing countries contain six new member states, three Southern European countries and Germany. Ireland, Luxembourg, the Netherlands and Denmark form a distinct leading group, whereas the Czech Republic and Greece have by far the lowest scores. Except for Denmark on work intensity, the Czech Republic on physical work factors and Greece on work autonomy, the best performing countries perform well above the average on all 4 scores whereas the two worst performing countries lie well below the average.

The regional division clearly shows on three of the four indicators. On the 'physical work factors' indicator most new member states and Southern European countries are below the average whereas the Anglo-Saxon and most of the Nordic and continental ones are above. The job insecurity and the work autonomy indicator show the same tendencies with only few outliers. Only on work intensity there is no clear pattern, in fact, some of the best overall performers, namely Denmark, Sweden (and Finland) get scores well below the average on this indicator. This outcome and also the fact that countries such as Germany and Austria fare badly on the working conditions and job security sub-index may be related to the somewhat subjective nature of the indicators making up this sub-index.

Figure 7: Working conditions and job security, 2005



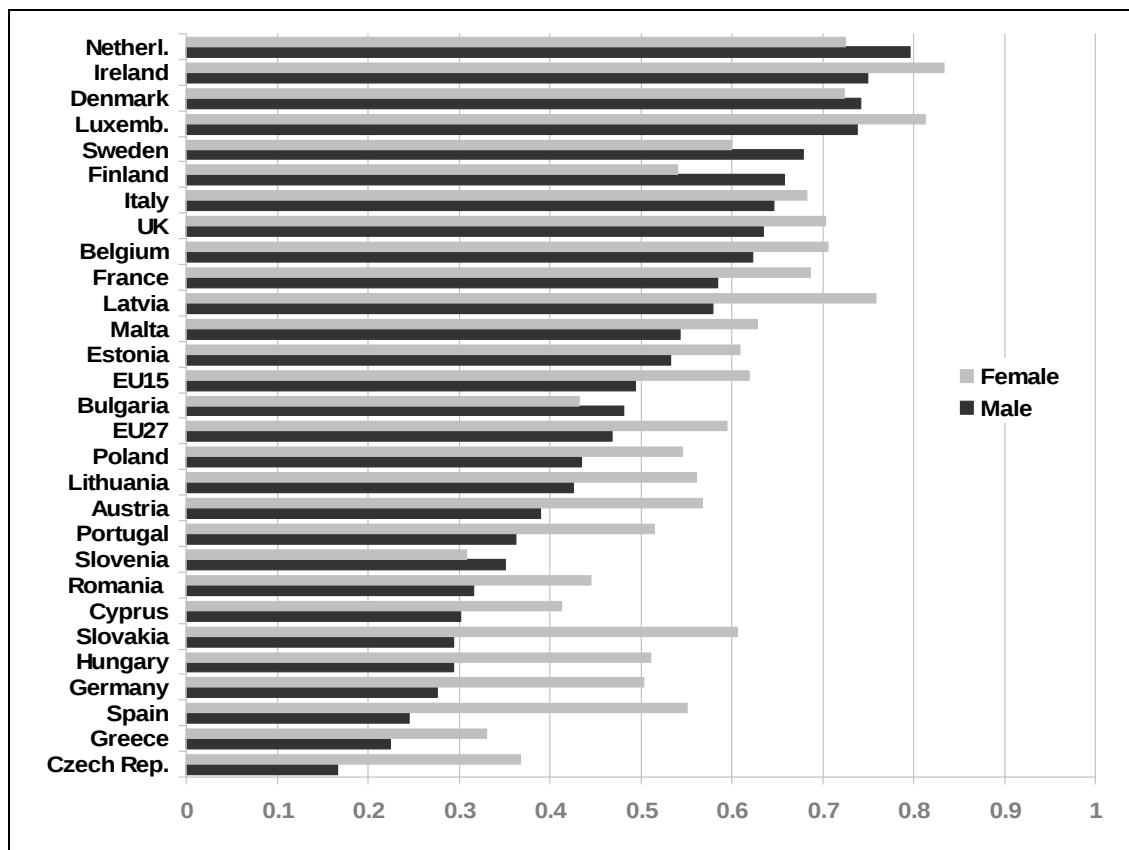
Source: own calculation based on work intensity (inverse), work autonomy, physical work factors and perception of losing the job.

Gender differences

Gender differences are less pronounced on this sub-index than on the previous three although on average women do better than men (Figure 8). Also the spread between countries is somewhat larger among men than women. Women have higher average results than men on physical work factors (about 6 percentage points) – which probably reflects sectoral segregation – and in terms of work intensity (5 percentage points), whereas men score somewhat better on the work autonomy and job loss indicators (about 1 percentage point each).

Only in the Netherlands, Sweden, Finland, Denmark, Bulgaria and Slovenia are men slightly better off than women in regard to working conditions and job security. For the first four countries this can easily be explained by the indicator on physical work factors: those countries (and Luxembourg) have the same outcomes for men and women, whereas in all other countries there are large differences in favour of women. This is likely due to the smaller (male-dominated) manufacturing sector in those countries and its high-tech nature. In Bulgaria and Slovenia, in contrast to the average outcomes, the work intensity of men is lower than that of women and furthermore they show larger than average gender differences in favour of men on the job security indicator.

Figure 8: Working conditions and job security by gender, 2005



Source: own calculation based on work intensity (inverse), work autonomy, physical work factors and perception of losing the job.

Interpretation

There are a number of important issues of interpretation with this sub-index. Apart from the fact that it is exclusively based on data from the EWCS, which means that we will get new results only every 5 years, most of the variables that this sub-index is based on are rather subjective. Responses by the interviewees can therefore be expected to depend on their expectations, which will be shaped by their environment, the prevailing or past standards, etc. These vary from country to country, suggesting that outcomes on this sub-index therefore have to be treated with caution. One wonders, for example, about the poor performance of Germany (fourth from bottom). While the manufacturing sector is still large, it is also generally at an advanced technological level. High unemployment and a more general economic malaise in recent years may have negatively affected workers' subjective perceptions also of qualitative issues. Indeed, analysis shows that the variable that picks up worries about job-loss is correlated with the unemployment rate. The same conditions may, though, also have weakened workers' bargaining power and thus permitted an actual *deterioration* of working conditions, very possibly from a comparatively high level, that is then picked up in the form of negative job quality evaluations.

2.5. Skills and career development

The sub-index skills and career development aims to capture the extent to which workers have the opportunity to develop their skills during working life and are thus able to enjoy progressive career development, reducing the risk of being stuck in dead-end jobs. A problem in regard to this indicator is that the extent of skills development at the workplace will vary depending on the extent and formalisation of initial education, and this differs between European countries. There is no indicator readily available to account for this problem. In order to at least in part allow for different training needs varying by initial education, the first indicator is restricted to adults (>25 years) and captures the share of those in the working population who have participated in education/training over the four weeks prior to the survey. The second indicator captures the average share of people that state that their job offers good prospects for career advancement. This offers a more general but also more subjective measure of career development. The two indicators are weighted 60/40 to arrive at the sub-index of skills and career development.

Overall outcomes

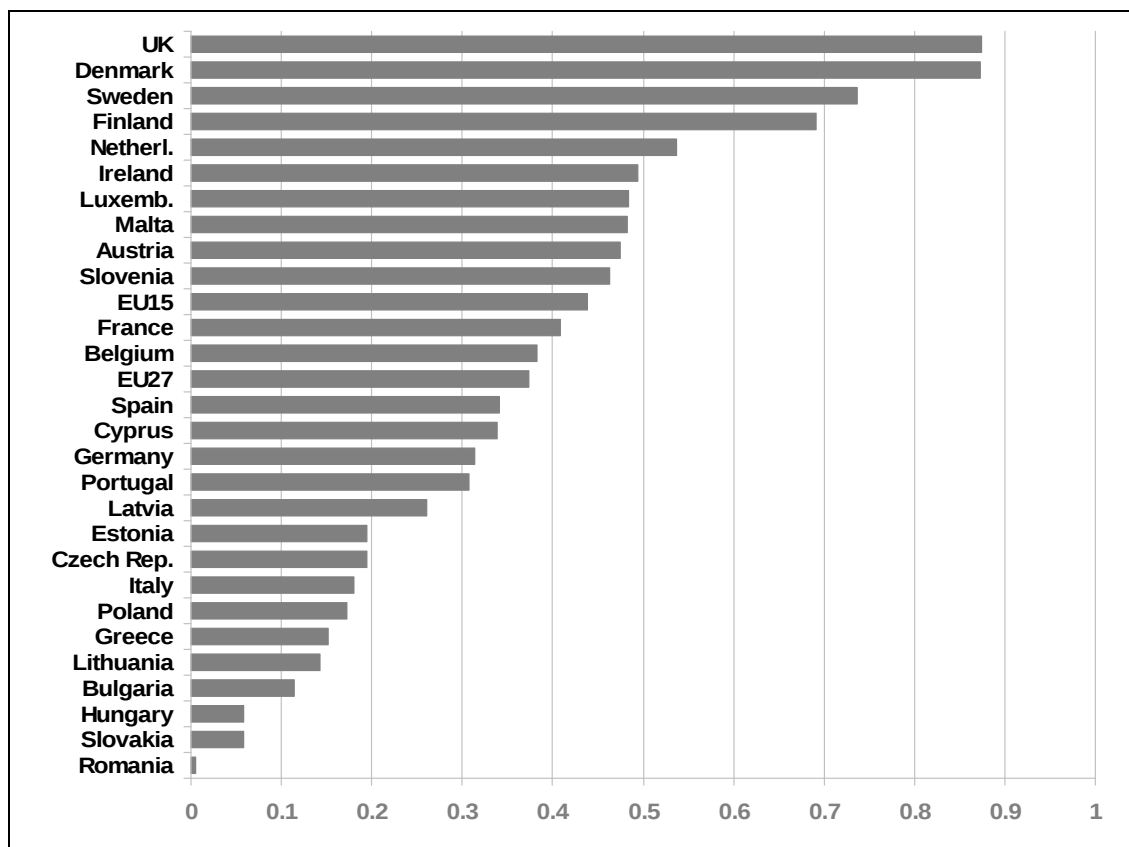
The range of scores on this sub-index, with three countries below 0.1 and two almost reaching 0.9, is one of the largest of the six sub-indices. This suggests – at least at the two ends of the distribution – that the two indicators used are correlated. Broadly the typical pattern of eastern/southern European countries below and western/northern European countries above the average applies. Four of the ten eastern European countries performed better on this measure than Greece and Italy. At the top end of the distribution the presence of the three Nordic countries and then the Netherlands in second-to-fifth place comes as no great surprise, given the emphasis of training provision in those countries. The incidence of training is actually highest in Sweden: that country's result being dragged down somewhat by the reported finding on prospects for career advancement.

The UK and Ireland, though, in first and sixth place respectively perhaps call for comment: the UK has been widely regarded as lagging behind in providing skills (Finegold/

Soskice 1988, Estevez-Abe/Iversen/Soskice 2001). It is true that in Ireland and to a lesser extent the UK, this sub-index result is based more on the ‘subjective’ assessment of career development opportunities, rather than actual training, which might reflect a generally more buoyant labour market situation in those countries. Still this element is clearly important in determining workers’ ‘felt’ job quality in this area.

As regards the training indicator itself, the positive score may partly reflect rather poor or limited initial education and training institutions, obliging employers to top-up skills with frequent, short courses, that lead to high scores on this indicator (which does not distinguish training duration, nor quality). Conversely Germany may perform poorly on this measure at least partly because the more comprehensive provision of initial skills reduces the need for repeated subsequent training. On the other hand, Austria, which has a similar initial training system, performs considerably better, suggesting that additional factors are probably at work. More positively, the UK’s result may reflect an increased and policy-driven focus on training by employers which has been an important part of the policy approach of the Labour government in the UK. The fact that in most NMS and many southern European countries less than 5% of workers underwent training during the four weeks prior to the survey must give cause for concern, given the widely accepted need to upgrade skills, not least in these countries. In only four countries was the figure over 20%, underlining that much needs to be done in this area to raise training provision.

Figure 9: Skills and career development, 2005/2006



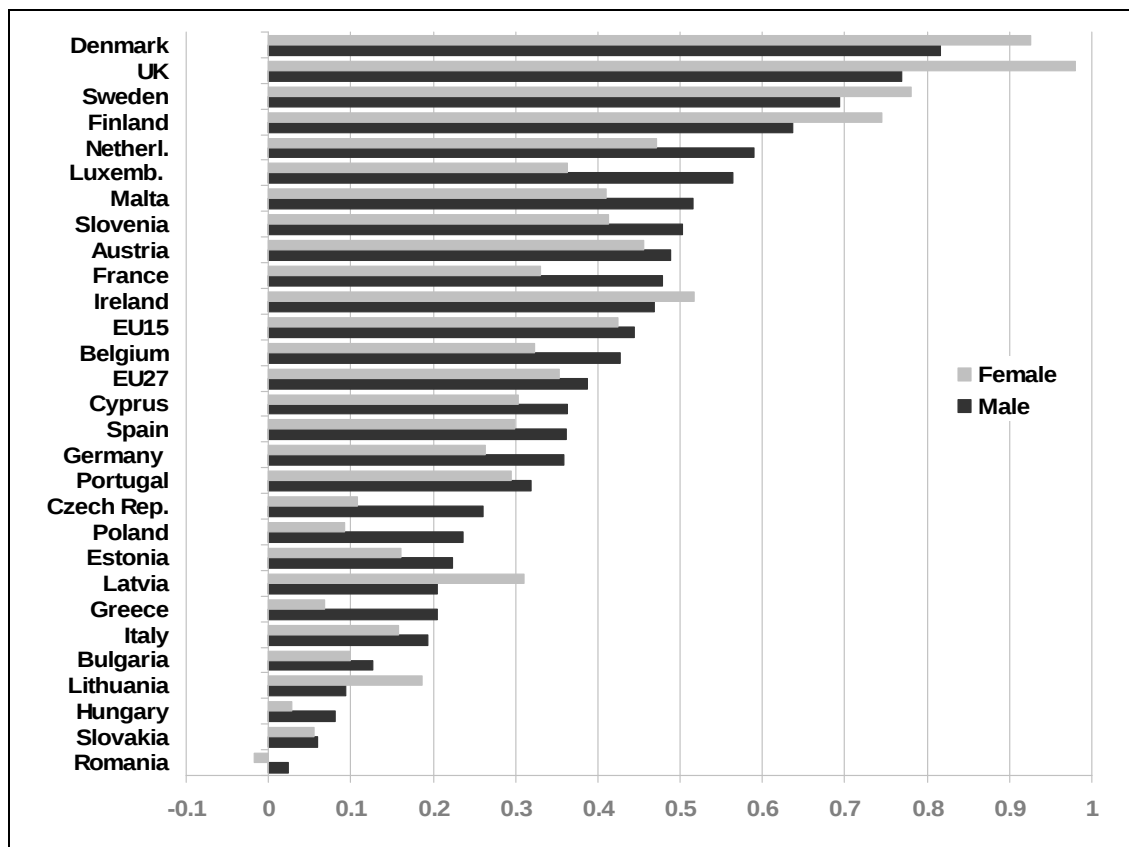
Source: own calculation. Includes information on percentage of adult population having participated in education/training during the last 4 weeks and on career advancement prospects.

Gender differences

Our findings suggest that on average the job quality of men is rather better than that of women in terms of skills and career development. The gender gap for the EU15 is fairly limited (0.44 to 0.42) but for the EU27 it is more substantial (0.35 to 0.39); especially in view of the small weight of the 12 NMS, this implies substantial gender inequality on this dimension in those countries (see also Fig. 10).

It is noteworthy that all of the four top performers in this category exhibit higher scores for women than for men (the same is also true of Ireland, Latvia and Lithuania, which are spread across the rankings). Looking at the two indicators separately, it emerges that women consistently outperform men in terms of training provision as defined here (some training during the four weeks prior to the survey): in fact in only two out of 27 countries is the figure for men higher (although the differences are often quite small). In contrast in the case of prospects for career advancement, it is men that almost universally report better prospects (again with two exceptions), and here the gender differences are considerably greater. These interesting findings can be interpreted in a number of ways, such as segregation in terms of occupations and form of contracts, the impact of periods out of the labour market and simple discrimination. Further analysis would be necessary to attempt to quantify the importance of such factors.

Figure 10: Skills and career development by gender, 2005/2006



Source: own calculation. Includes information on percentage of adult population having participated in education/training during the last 4 weeks and on career advancement prospects.

Interpretation

Overall this sub-index probably provides a reasonably plausible picture of this aspect of job quality. However, we cannot be entirely confident of this before more detailed comparisons are made using more sophisticated indicators. It is a concern that there is no control for the quality or intensity of the training courses offered and that countries with greater numbers of people taking repeated, short courses are more likely to gain high response rates in the survey than those offering less frequent, but more in-depth training programmes.

One unfortunate consequence for the JQI is that the gender pattern for this sub-index – but not the sub-index as a whole – is rather sensitive to the weighting given to the two indicators (which we set at 60-40), as one systematically favours women the other men.³ Clearly, an increase (decrease) in the weighting given to career prospects would have the effect of improving (reducing) the male compared to the female rankings across the countries.

2.6. Collective interest representation

The last field that is taken into account is **collective interest representation and voice**. A sense of ‘voice’ by workers is known to be conducive to job satisfaction, however it is difficult to operationalise. It would be preferable to incorporate a number of indicators summarising collective interest representation at the workplace, but we lack comparative information over time on the presence of a staff association or works council at the workplace, not to mention assessments of their effectiveness in defending workers’ interests and giving them a sense of voice. This is despite the existence of EU directives calling for minimum standards in terms of the information and consultation of workers.

This sub-index will therefore be made up of three indicators that, even when taken together, only go a certain way towards capturing collective interest representation. From the ICTWSS database⁴ we take the proportion of workers whose pay and conditions are covered by collective bargaining. Such coverage is conducive to a sense of collective voice on the part of workers, and has been shown to correlate positively with a range of desirable outcomes from the point of view of workers (ILO 2004). Moreover, membership of a trade union offers workers protection against arbitrary behaviour on the part of employers and is more generally an indicator of the collective force of working people.⁵ We therefore also use the union density figures from the ICTWSS database. Some missings are filled with reference to an ETUI-REHS study (Keune 2006). Lastly, as a more subjective, but also direct measure, we include the share of workers that reports that they are consulted about changes in work organisation, according to the EWCS.

³ Leschke/Watt/Finn 2008 contains an annex in which the sensitivity of the index to changes in the weightings is examined. Overall plausible changes in the weightings do not have major impacts on the findings.

⁴ Currently still unpublished. The data were kindly made available by Prof. Jelle Visser.

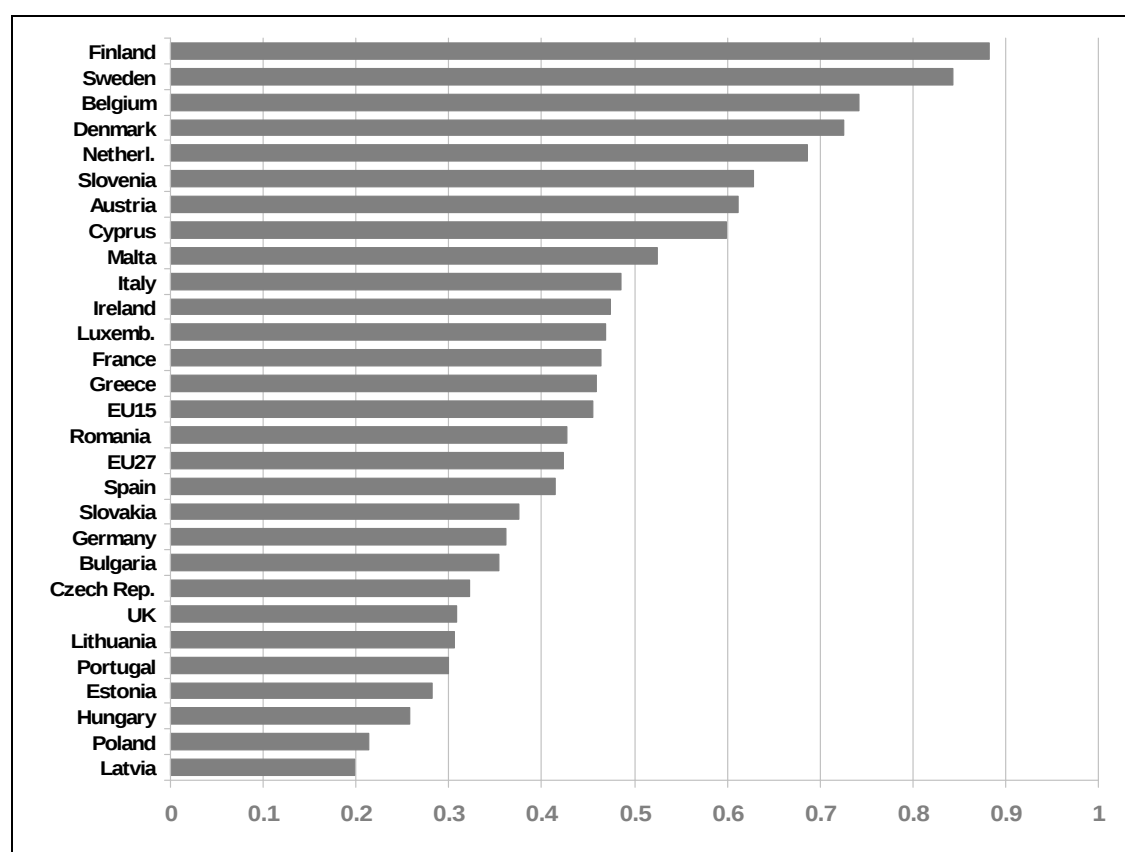
⁵ At the same time union membership is subject to many national-specific, institutional and cultural factors, and is thus a poor measure in a cross-country comparison. The case of France, with very low union density, but a high mobilisation capacity and also alternative avenues of workplace representation is well known. Unfortunately comparative data on such representation forms are not available.

It is in this last, important, dimension of job quality that the available (quantitative, comparative) indicators arguably encounter the greatest limitations in depicting the complexity of the underlying material. We return to this issue after presenting the results.

Overall outcomes

The collective interest representation sub-index is clearly led by the Nordic countries, with Belgium and the Netherlands also performing well. The bottom four countries are from the eastern European NMS. However the middle of the distribution does not conform at all to preconceptions based on welfare-state typologies. Several of the southern European countries (Italy, Greece) perform well, whereas Portugal is fifth from bottom. The UK does only slightly better, whereas Ireland is slightly above the EU15 average. Also surprising is the different performance of apparently similar countries such as Austria (in seventh place) and Germany (in 18th). Around half the countries are bunched within quite a narrow range (between 0.3 and 0.5).

Figure 11: Collective interest representation, 2006



Source: own calculation. Includes information on collective bargaining coverage, trade union density and being consulted about changes in work organisation.

The correlation with the indicator measuring the extent to which workers feel they are consulted about changes at work is less pronounced. It is noticeable that workers in a number of eastern European countries (especially the three Baltic countries and Bulgaria) report high levels of consultation despite very low scores for collective bargaining and union density. This may indicate the existence of alternative management practices that do not rely on trade unions and collective bargaining measures, a predominance of very small firms, subjective elements (reflecting the direction of change rather than levels); it may also

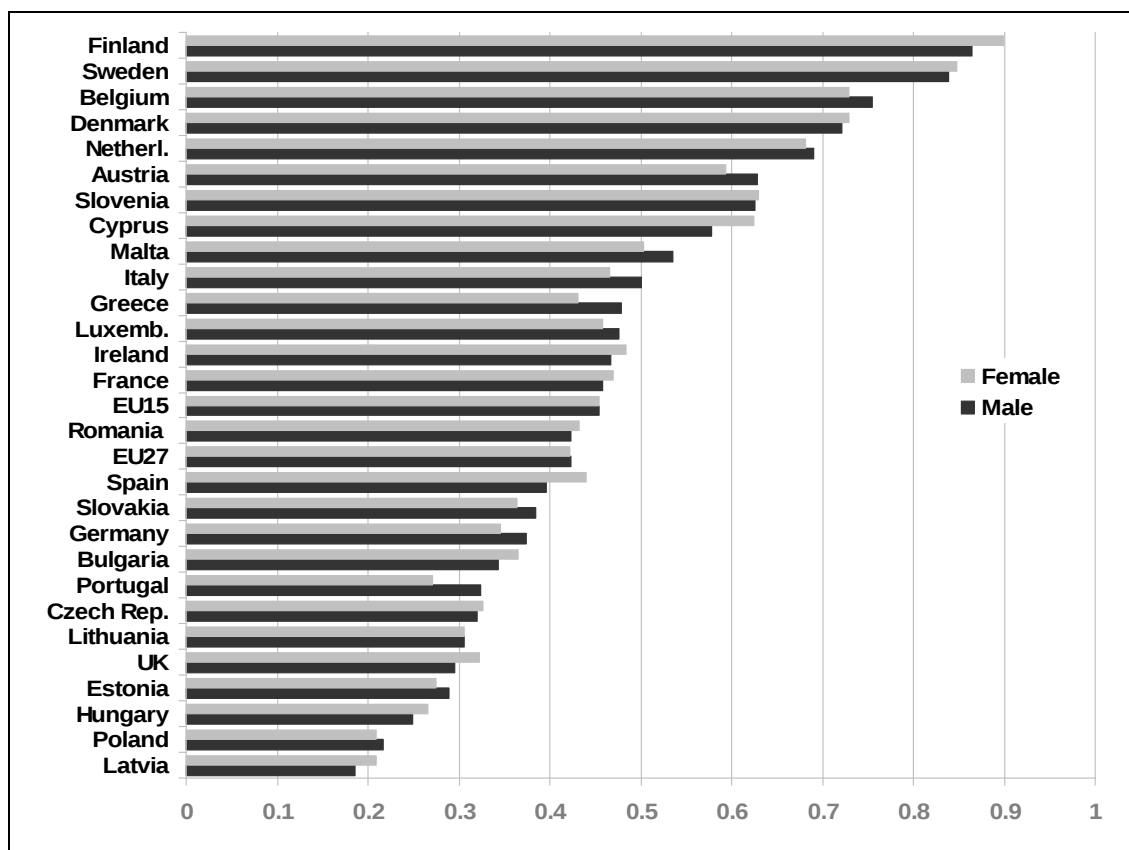
reflect a quirk of the survey. In contrast the overall scores on this sub-index are dragged down for a number of western European countries (Portugal, Italy, Spain, and France) by the results for this ‘consultation’ indicator; they do considerably better on at least one of the two other indicators. Perhaps surprisingly, Germany, however, is consistently below average on all three indicators.

To some extent this results from a limited correlation between the three indicators used. Although there are some outliers – most remarkably France, but also Austria – union density and the extent of collective bargaining coverage do correlate reasonably well across the distribution as a whole. However, only seven countries have a union density above the mid-point between the country with the highest (Sweden) and lowest (France) density, whereas 20 are below: in other words the average is pulled up by a small number of countries with well-above-average union density.

Gender differences

The gender differences on this sub-index relate solely to the ‘consultation’ indicator, accurate gendered membership data not being available for either union density or collective bargaining coverage. Because of this the measured gender differences are rather small and rather randomly distributed between the countries.

Figure 12: Collective interest representation by gender, 2006



Source: own calculation. Includes information on collective bargaining coverage, trade union density and being consulted about changes in work organisation.

Interpretation

Clearly the three indicators chosen are far from perfect in assessing the degree to which workers have a collective voice at the workplace. It would be useful to have a lot more information on both objective data such as the presence of works councils, the existence of grievance procedures etc., and also more detailed subjective indicators of how well workers feel that their views and interests are taken into account at the workplace. An explicit incorporation of works councils, for instance, would be certain to improve Germany's position. Arguably the UK makes more use of informal non-union linked forms of consultation, that do not show up in the scores, although these tend to be limited to specific skill groups and sectors. The fact that we were able to pool three indicators together gives us some confidence in the results. To some extent the rankings are similar to the general pattern familiar from most of the other indicators.⁶ The poor showing of Germany, though, would appear to be anomalous.

2.7. Overall Job Quality Index

The results of the overall job quality index in figure 15 should be interpreted cautiously since it is derived from the simple average of the six sub-indices described previously. There might be plausible reasons why one should have accorded more weight to some of the sub-indices – for instances wages. Since this would have introduced another subjective or arbitrary element we decided for a simple average.⁷

The Nordic countries together with the Netherlands and the UK fare best in terms of job quality as measured by the JQI. Denmark takes the lead with a score of almost 0.8, followed by the Netherlands, the UK, Sweden and Finland follow with scores of around 0.7. The worst job quality performance is observed in Poland and Romania with scores around 0.3 but also Greece turns out to have very low job quality as measured by the JQI.

If we contrast the results on the sub-indices of the two best and the two worst performers we see that Denmark and the Netherlands are in most cases well above the EU27 average whereas Poland is always well below the EU27 average except for working conditions where it is close to the average and Romania is below or – on non-standard employment and collective interest representation – slightly above the EU27 average. We consider country profiles in more detail in the next section.

Looking at the regional distribution on the final JQI we have the Nordic countries followed by the continental ones on top and a mix of southern European and new member states on the bottom.

Two striking individual results are the United Kingdom being in the top 5 and Germany coming in slightly below the EU27 average. The result for the UK is in line with Davoine et al. (2008) who, based on an extended version of the Laeken indicators, also construct a job quality index for Europe – in fact, our 5 best performers are also their 5 best

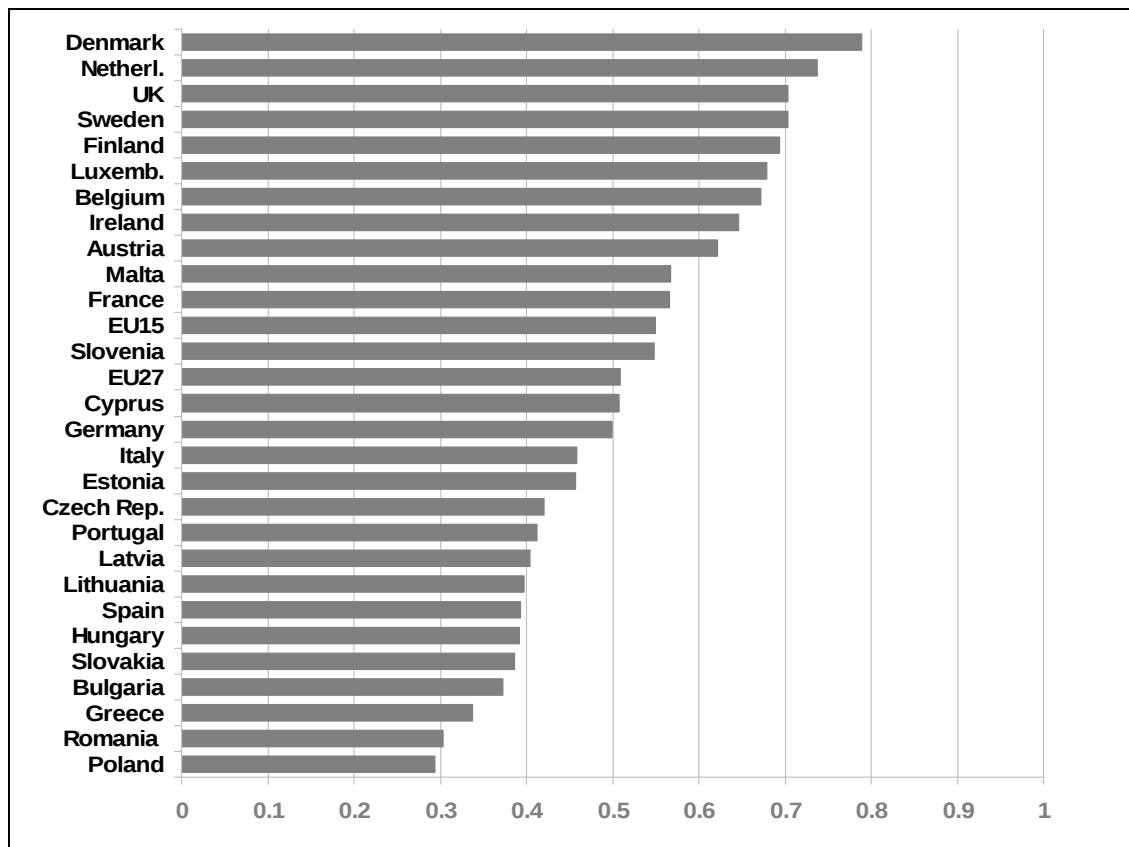
⁶ Of course this fact does not mean that the indicators chosen here are 'right'. But it does imply that if we were exclude this sub-index from the JQI on the grounds that the indicators are inadequate, the overall rankings would not change fundamentally.

⁷ In fact a very minor 'weighting' is used to adjust for the fact that the average score of the 27 countries is slightly different in each of the six sub-indices.

performers. Similarly, Tangian (2007), based on the full dataset of the 2005 EWCS, arrives at a job quality ranking rather similar to our JQI, including the positions of Germany and the UK.

In our JQI The UK is the best performing country on skills and career development and also shows good results on working time and work-life balance, working conditions and job security and non-standard employment. Thus even if the indicators for some sub-indices are less than optimal – the training indicator almost certainly exaggerating British performance, for example – the UK’s consistently rather good performance suggests that the overall result is unlikely to be a statistical mirage.

Figure 13: Overall Job Quality Index



Source: own calculation. Based on the following six indicators: wages, non-standard forms of employment, working-time and work/life balance, working conditions and job security, skills and career development and collective interest representation.

Germany, on the other hand, shows good results only on wages, but very bad outcomes on non-standard employment and working conditions and job security and it scores slightly below the EU27 average on skills and career development and collective interest representation. Especially for these last two fields of job quality, the available data is deficient in our opinion which may have led to somewhat questionable scores. Germany, for instance, is known for its well functioning dual education system. In contrast to the British system which – due to deficient initial education – has to rely on training on the job, in Germany – once initial education is finished – training on the job may be less important. Similarly, Germany's works councils that defend workers rights directly at the firm level may be even more important than trade union density for

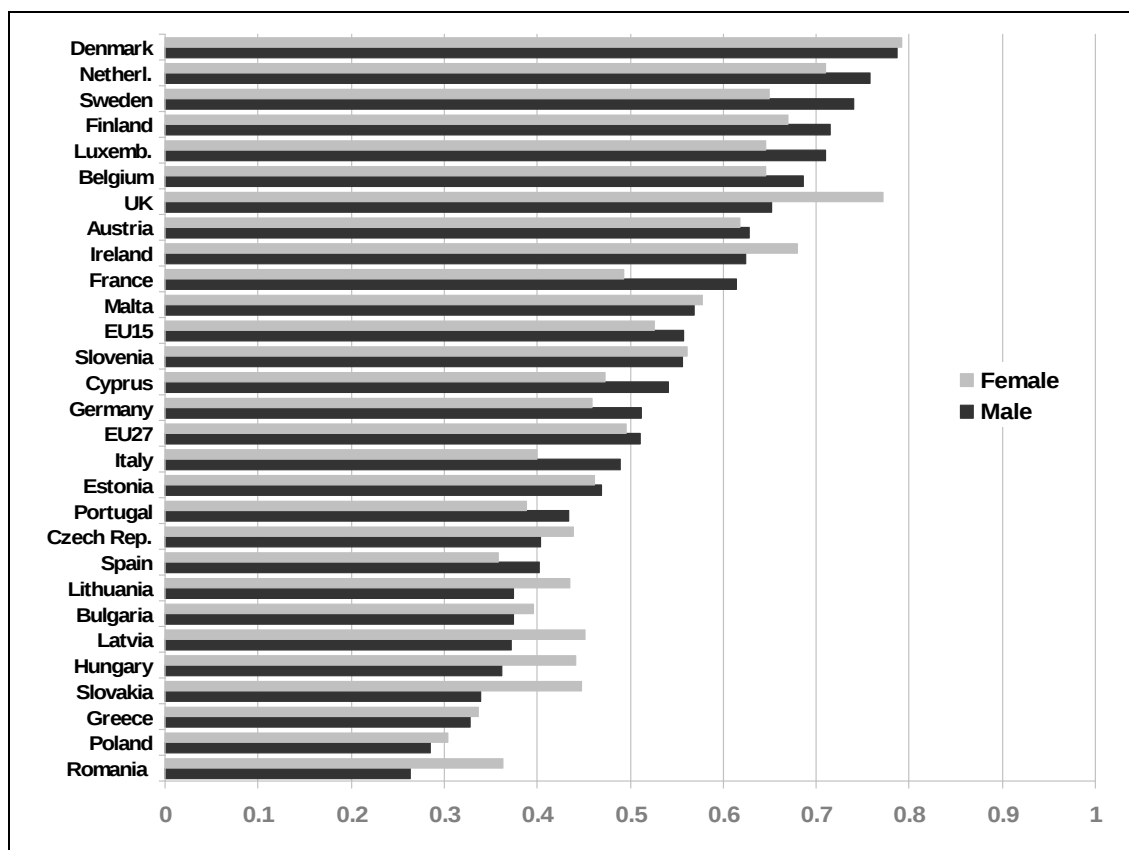
instance. Yet the coverage (not to mention the ‘power’) of works councils cannot be captured in our sub-index on collective interest representation due to non-existent comparative data.

Gender differences

The majority of countries display fairly, similar results for men and women on the overall JQI, with some notable exceptions (Figure 16). The EU aggregates suggest a very slightly higher score for men than women, with the gap somewhat larger in the old than the new member states. Interestingly, among the better performing countries, women are better off than men only in the UK and to a lower degree in Ireland. In general, better results for women than men are found mostly in the countries that perform well below the EU27 average, namely Hungary, Latvia, Slovakia and Romania. Considerably better performances for men are observed in Sweden, France, Cyprus and Italy.

These findings should not be over-interpreted, however. As we have seen, the gender balance is very skewed in a number of the sub-indices. An alternative weighting of the sub-indices would therefore give very different results. Moreover, some concepts (especially those of ‘voluntary’ and ‘involuntary’ use of non-standard contracts, which are very important for gender differences, are far from clear-cut.

Figure 14: Overall Job Quality Index by gender



Source: own calculation. Based on the following six indicators: wages, non-standard forms of employment, working-time and work/life balance, working conditions and job security, skills and career development and collective interest representation.

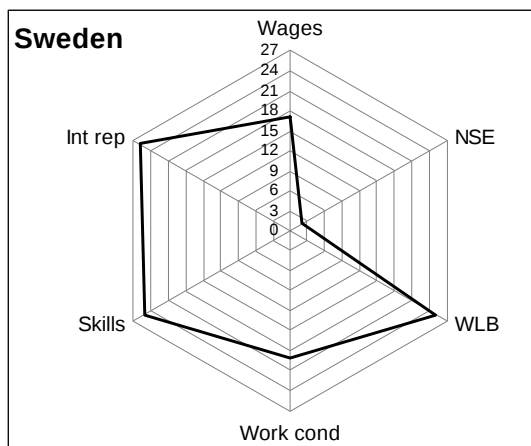
3. Country profiles and clusters

The analysis so far has considered the various dimensions of the JQI and discussed the performance of different countries along these dimensions. We conclude with a consideration of the data with a focus on the performance of individual EU27 Member States and country groups. This change of perspective allows us to consider questions such as: does a country's overall performance reflect rather stable rankings in all six sub-indices or a mixture of highly heterogeneous results in different categories? More generally: do countries seem to offset bad performance in some areas with better performance in others, or are countries' performance levels positively correlated across categories? Are there similarities in the performance of countries that are often considered to have similar institutional structures, belonging to the same welfare-state 'ideal type' or 'social model'? To limit the discussion it is restricted to the overall outcomes, not considering gender differences.

3.1. Country profiles

The performance of countries on the six sub-indices can be depicted graphically using so-called 'radar charts'. As an illustration, Figure 17 shows the chart for Sweden. Charts for the other 26 countries are to be found in Figure A1 in the appendix.

Figure 15: Performance of Sweden on the six sub-indices



Source: own calculation.

Each of the spokes of the chart refers to one of the six sub-indices. Countries have been ranked for each sub-index in such a way that the best performer scores 27, the worst-performer 1. Thus Figure 17 shows that Sweden performed very well on the dimensions collective interest representation, work-life balance and skills (being the second or third-best performer), fairly well on wages and working conditions, and extremely poorly on (involuntary) non-standard forms of employment, where it was second-last. It was the very poor performance on this last dimension that dragged down the overall Swedish result (4th place).⁸ Nevertheless the relatively large area encompassed within the black line marks

⁸ Sweden's poor performance on this measure reflects high scores for both temporary and part-time employment – in many countries only one of these scores is high – combined with close-to-average scores for the degree of involuntariness.

Sweden as a successful country in terms of job quality overall. This is readily apparent by comparing with the chart for Poland (appendix), which performs poorly on all dimensions except working conditions. As it would be tedious to describe the patterns of all the different countries, the interested reader can consult the graphs in the appendix and gain a visual impression of where the relative strengths and weaknesses of countries of interest lie. For example, looking at the last two charts shows that the overall performance of Sweden and the UK was very similar. The former's major weakness is in the area of involuntary non-standard employment, the latter's in collective interest representation.

The radar charts already indicate that some countries have a more even performance across the categories. Compare the charts for Portugal and Sweden. Portugal's rankings on the six sub-indices ranged only from 15th to 23rd place, giving it 22nd place overall. By contrast, as we have seen, Sweden ranged from second-best to second-worst. More formally we can measure the heterogeneity of country performance by calculating the standard deviations of each country's rankings on the six sub-indices from that country's average ranking.⁹ The average standard deviation for all 27 countries is 6.2, i.e. on average each country's score on any one sub-index was about 6 positions away from its own average rank. The range is from less than 3 in Portugal to more than 9 in Sweden (cf. Table A1 in the appendix). No obvious country patterns emerge from this distribution, although seven out of the nine countries where the rankings are most heterogeneous are eastern European NMS; however, standard deviations are unsurprisingly rather low for the two worst overall performers, Poland and Romania. In most cases this heterogeneity reflects largely the very good performance on the non-standard employment sub-index compared with consistently below-average performance on all the other indicators.

Although it is not clear what could serve as a normative benchmark for judging the extent of heterogeneity across the sub-indices, it seems that in most cases overall country performances reflect reasonably well the combined performance across a range of indicators. Where there are large differences with particular sub-indices (as in the cases of Sweden and the UK or the eastern NMS mentioned earlier) the findings seem plausible, and thus there does seem to be a genuine heterogeneity of performance in such cases. We have repeatedly emphasised that a number of the sub-indices suffer from data constraints and can in no way be considered ideal measures. This may over- or understate country performance on given sub-indices compared with some 'true measure' if the requisite data were available. At the same time, the findings from examining the country profiles give some confidence that the rankings on the overall JQI are not being unduly distorted by the performance on a single, perhaps biased indicator.

3.2. Country clusters

The idea that European countries can be classified according to typologies of their socio-economic institutional structure, or considered as specific 'varieties of capitalism' has a long tradition that goes back at least to the seminal work of Gösta Esping-Andersen (1990), and which has led to a burgeoning literature (e.g. Hall/Soskice 2001, Jepsen/Serrano Pascual 2005). When discussing the six JQI component indices in section 2 we made frequent reference to certain regional patterns that emerged.

⁹ Note that a country's average ranking, the mean of six rankings, is not the same as its overall JQI ranking. For example, Denmark, which came top in the overall JQI, has an average ranking of 5.9 (the average of positions 8, 16, 1, 4, 2 and 4).

Here we take the analysis a step further by constructing country clusters in accordance with the spirit of the worlds of welfare capitalism literature. We then examine the performance of these country clusters by examining their (unweighted) average rankings and also by comparing the standard deviations of cluster members round their respective averages with the overall standard deviations of the full set of countries. The intuition behind the analysis is that if country clusters have relevance for, or manifest themselves in, job quality, then:

- averages for the clusters will tend to be distinct from each other in the various sub-indices (and will mostly differ from the overall average rank of 14); and,
- standard deviations will be smaller within the country clusters than for the whole sample or for a randomly drawn sample of countries.

Conversely, if the job quality indicators are randomly distributed across countries, and the clusters offer no coherence at all, then we would expect the rankings for the clusters to be rather similar and close to the sample average of 14, and the cluster standard deviations to be roughly as large as those for the sample as a whole or for a randomly selected sub-group.

This is not the place for a discussion of the lengthy literature on precise country classifications. Instead we adopt a pragmatic approach. The ‘Nordic’ (Denmark, Finland, Sweden,) and ‘Anglo-Saxon’ (Ireland, UK,) clusters are uncontroversially delineated. Clearly in the ‘corporatist/continental’ camp are Austria, Belgium, France, Germany, Luxembourg and the Netherlands. The ‘southern’ (or ‘Mediterranean’) group contains Greece, Portugal and Spain. There is some controversy regarding to which of these two clusters Italy belongs. Consequently we experimented with both. Problematic is also the situation of the new member states. Not only Esping-Andersen, but much subsequent work on welfare state typologies has ignored them. Other authors have suggested that these countries consist of a hard-to-define mix of characteristics or simply constitute a ‘miscellaneous’ category (Keune 2008). As the aim here is merely to have a lens with which to look at the data (rather than trying to make a case for a certain pattern of inter-country coherence) we adopt two simple categorisations: first a ‘political’ one in which all the ‘new member states’, the ten that joined in 2004 and the two that followed in 2007 are considered together (termed ‘NMS’); the second is a ‘geographic’ classification that treats the ten central and eastern European countries as one cluster (‘eastern’), with the two Mediterranean islands, Cyprus and Malta, classified as ‘southern/Mediterranean’. Incorporating also the uncertain classification of Italy, we have used two separate classifications, the relevance of which for job quality can then be compared.

Table 1: Two alternative welfare state typologies (differences in bold)

	Nordic	Corporatist/c ontinental	Anglo-Saxon	Southern/ Mediterranean	NMS
Typology 1	DK, SE, FI	AT, BE, FR, DE, LU, NL	IE, UK	GR, ES, PT, IT	BG, CY , CZ, ET, HU, LV, LT, MT , PL, RO, SK, SV
	Nordic	Corporatist/c ontinental	Anglo-Saxon	Southern/ Mediterranean	Eastern
Typology 2	DK, SE, FI	AT, BE, FR, DE,LU, NL, IT	IE, UK	GR, ES, PT, CY , MT	BG, CZ,EST, HU, LV, LT, PL, RO, SK, SV

Three different benchmarks were experimented with to compare the averages and the standard deviations. The first is to use the average and standard deviation (SD) of the overall sample. Secondly, a number of groups of five countries were selected at random and the average values for their means and standard deviations were calculated. Thirdly, two mixes of five countries, in which one country was taken from each cluster were selected; again the results were averaged.

Table 2: Do welfare state regimes have a meaning in terms of job quality? A statistical comparison

	Wages	NSE	WLB	Work con	Skills	Int rep	JQI	Wages	NSE	WLB	Work con	Skills	Int rep	JQI
	ave	ave	ave	ave	ave	ave	ave	SD	SD	SD	SD	SD	SD	SD
TYPOLOGY 1														
Nordic	9,33	21,00	5,67	8,00	3,00	2,33	4,67	1,53	5,00	6,43	3,61	1,00	1,53	3,21
Continental	3,50	15,67	7,00	10,00	9,83	9,67	7,33	1,87	7,17	4,00	7,40	3,60	5,65	4,76
Southern	16,50	21,25	20,25	18,75	17,75	15,75	21,75	3,11	5,06	4,99	8,34	4,03	5,44	4,03
Anglo-Saxon	8,50	10,00	7,00	3,50	3,50	16,00	6,00	2,12	1,41	4,24	3,54	3,54	7,07	2,83
NMS	20,50	9,67	18,67	17,67	19,33	18,17	18,42	4,89	7,51	5,76	6,33	6,21	7,30	5,37
TYPOLOGY 2														
Nordic	9,33	21,00	5,67	8,00	3,00	2,33	4,67	1,53	5,00	6,43	3,61	1,00	1,53	3,21
Continental	4,86	16,71	8,86	9,57	11,29	9,71	8,57	3,98	7,11	6,12	6,85	5,06	5,15	5,44
Southern	17,20	17,60	17,60	20,80	14,60	14,00	18,80	1,92	6,95	6,54	5,54	5,08	6,04	6,83
Anglo-Saxon	8,50	10,00	7,00	3,50	3,50	16,00	6,00	2,12	1,41	4,24	3,54	3,54	7,07	2,83
Eastern	21,30	9,00	19,70	17,60	21,00	20,10	19,80	4,99	7,77	5,38	6,40	5,16	6,33	4,69
AVE random	15,50	10,70	15,05	15,85	15,90	13,80	14,90	7,36	7,69	6,15	5,51	6,83	8,05	5,68
AVE mix	12,00	18,40	12,70	10,90	11,40	14,00	13,10	7,90	6,87	5,96	5,53	7,86	8,94	6,90
Sample	14,00	14,00	14,00	14,00	14,00	14,00	14,00	7,94	7,94	7,94	7,94	7,94	7,94	7,94

Source: own calculations.

The results of this cluster comparison are presented in Table 2. To simplify the discussion the overall sample means and SD will be used as benchmarks, as the results using the two other options are broadly similar.¹⁰

We will not describe all the results in detail, but refer fully to the findings for the JQI as a whole, and then comment on some interesting outcomes for the various sub-indices. Figures, given to two decimal places in the table, are rounded to the nearest integer in the text.

For the JQI the averages of the five different clusters are clearly distinct from the sample mean (14), with the Nordic, Anglo-Saxon and Continental clusters substantially below and the southern and NMS/Eastern substantially above. In typology 1, the three best-performing clusters (Nordic, Anglo-Saxon, Continental) are rather close, with average rankings of 5, 6 and 7 respectively.¹¹ The NMS perform better overall than the southern countries in the first typology, but this is reversed when the Mediterranean islands are counted ‘geographically’ rather than ‘politically’, i.e. with the southern countries rather than the NMS (Typology 2).¹² Overall this suggests that the job quality gap is between the northern and western old member states on the one hand and the southern old and the new member states on the other. The three Nordics have a slight advantage over the two Anglo-Saxons, with the Continentals somewhat behind (more so if Italy is included).

More tellingly still, the standard deviations of the country clusters are substantially below the benchmark. As might be expected, the clearly defined Nordic and Anglo-Saxon groups have the lowest standard deviations, around 3 compared with the benchmark 8. Although the other three clusters are somewhat sensitive to the precise country ascription, the figures remain low compared to that of the sample as a whole. Even in the case of the naive ‘political’ lumping together of all the twelve NMS, the reported SD is substantially below the benchmark; removing Cyprus and Malta narrows the variance within the group considerably. At the same time it is the NMS/eastern cluster that exhibits the widest job-quality dispersion of all the clusters, in line with the literature suggesting that these countries do not constitute a group in institutional welfare-state terms. Moreover, Slovenia is frequently singled out in the welfare regime literature as being more typical of corporatist institutional regimes, and this also proves true for the JQI, where Slovenia does comparatively better than the other eastern countries (compare figure 15 and the radar chart for Slovenia in the appendix) (Keune 2008). Incorporating Italy with the Continental countries increases the variance within that cluster indicating that, in terms of the overall JQI ranking, Italy is between the

¹⁰ As can be seen from the bottom section of the table, the averages for the different sub-indices were sometimes higher, sometimes lower for the ‘mix’ and ‘random’ sets of countries than the sample average. The ‘random’ averages tend to be higher than those for the ‘mix’ because they are more likely to contain NMS. The SDs are also close to the sample figures, although on balance they are lower. As expected the SDs of the ‘mix’ are higher on average than for the random groups although this is not the case for every sub-index.

¹¹ For the graphical representation in the radar charts (above and in the appendix) the ranking was reversed in order to give ‘good’ countries a greater area on the graphs, rendering interpretation intuitive. Here we revert to a more traditional ranking in which 1 is the best country and 27 the worst performer.

¹² It is recalled that unweighted averages are used, so the size of the countries plays no role.

southern and the continental/corporatist country clusters. The SD also rises for the southern countries in the second typology, but this is driven by the inclusion of Cyprus and Malta, which perform better than the three southern countries *and* Italy.

Looking more briefly at the six sub-indices broadly confirms the above findings, with some interesting nuances. The wages sub-index exhibits distinct cluster averages and lower standard deviations than for any other dimension: the relevance of a welfare-state typology appears to be strongest in this area. In the case of non-standard employment it is, interestingly, the Nordic and southern countries and the Anglo-Saxon and NMS that pair up in terms of cluster averages, with the continental/corporatist countries close to the population average. However, apart from the Anglo-Saxon countries, the standard deviations are rather high. In the area of work life balance, the typical northern/western (on the top) and southern/eastern (on the bottom) division emerges; the degree of dispersion is rather high for all of the cluster groups though (especially on the second typology). Perhaps surprisingly, standard welfare state typologies seem to have only limited relevance in the area of work-life balance, at least as measured here, with, not least, substantial differences between the three Nordic countries.

The working conditions averages are distinct (with the Anglo-Saxons leading), but the standard deviations are rather high (although less so when Italy is classified in the Continental cluster). The skills averages are also highly distinct (with an 'Anglo-Nordic' and 'southern-NMS' pairing). Standard deviations are rather low, especially for the Nordics, Anglo-Saxons and Continental countries excluding Italy (first typology). Finally, in the case of interest representation the Nordics and the continental/corporatist countries are well and somewhat better than the average respectively, with the remaining three clusters bunched just above the mean ranking. The Nordics have an extremely low dispersion within the cluster, with rather high figures for all the other clusters but especially the Anglo-Saxons and the NMS/eastern countries. In the latter cases the dispersion is almost as great as within the whole sample, although removing Cyprus and Malta substantially reduces dispersion for the eastern compared with the NMS cluster.

In conclusion our statistical analysis of the country rankings suggests that the standard welfare-state or variety of capitalism-type classifications do have some purchase in the area of job quality, as measured by the JQI and its components. In most cases clear patterns of cluster averages emerge and standard deviations are consistently lower than for the sample as a whole. The Nordic and Anglo-Saxon clusters emerge as most coherent from the data. They are also the smallest, with three and two 'members' respectively. Statistically this does not affect the results as standard deviations are not affected by sample size. However, the members of the larger country groupings are seemingly rather less similar and thus form less coherent clusters. Again this is in line with the thrust of the literature in this area. Regarding the two typologies, placing the Mediterranean islands with the southern rather than the eastern countries and, at the same time, shifting Italy between the continental and southern groups seems to have ambiguous effects. Overall, the eastern countries are more coherent a group than the NMS, as expected. However, this results from (somewhat larger) improvements on three sub-indices and (somewhat smaller) increases in dispersion in the other three. Removing Italy from the continental group increases overall coherence, but again, not on all dimensions. The effect of adding Italy to the southern group is hard to discern,

because tied in with the exclusion of Cyprus and Malta: overall, coherence is substantially greater in the first typology. A Salamonian verdict, that also takes into account the significant north-south dichotomy *within* Italy, would probably conclude that the country exhibits a mixture of ‘southern’ and ‘continental’ features, and that this is also reflected in our job quality indicator. A similar case could be made for Slovenia which has a number of institutional features (and also results on some sub-indices) that are typical of the corporatist countries.

Conclusion

The JQI covers job quality issues in a multifaceted way and thereby helps to broaden the discussion on changing labour markets by going beyond unemployment rates and employment rates – at present the indicators that dominate the policy debates – while maintaining a quantitative approach.

The JQI has a number of advantages. It allows us to compare different dimensions of job quality between EU27 countries and between men and women. All the data used are regularly updated, so that as new waves of data become available, the JQI will also allow to track developments in terms of job quality over time for individual EU27 countries, for country clusters, and the EU as a whole. Gender comparisons will also be possible. We intend to update the JQI at regular intervals to monitor job quality trends over time. This should shed light on whether or not wider labour market policies, including those which aim to raise employment rates, are having effects on job quality, and whether any such effects are being supported, or offset, by secular trends in our economies.

At the same time the prerequisites of comparability over a large number of countries, gender and time made some compromises in terms of data and common definitions necessary that impose limitations on the JQI.

Researchers looking only at individual countries over time or at job quality in Europe at a given time point without the constraint of wanting to update the data on a regular basis can use much more encompassing and/or detailed data. We for example identified serious weaknesses resulting from the lack of meaningful comparative data in the fields of collective interest representation and skills and career development. More ideal measures might give rise to rather different country rankings in these areas. The JQI should therefore be seen as complementary to more-detailed national studies.

An additional point is that the data enable us only to calculate national averages (for total and male and female population). We can say nothing about the distribution of job quality around these national averages, for example by skill or income level, by age, sector or region. It is well known from empirical research (e.g. OECD 2002 and 2003) that, for instance, it is especially the low qualified who suffer from poor job quality (e.g. lower wages, over-representation in non-standard forms of employment, fewer access to skills and career development). A further disaggregation by level of qualification, or other dimension, such as age or broad sector, would be desirable but this was not possible for all individual variables used for the sub-indices.

When calculating the JQI we were required to make a number of decisions involving taking a normative view (choice of variables, weighting). These are clearly set out in this paper and particularly the methodological discussion paper (Leschke/Watt/Finn 2008). They can, of course, be discussed, and other researchers may well make other choices. In summary, we can conclude that it is only by comparing the results of more detailed, specific studies with more encompassing approaches, such as our JQI, that we will be able to gain a clearer picture of trends across Europe in the area of job quality. Ultimately, though, further progress in this field requires the provision of more detailed comparative data. It is to be hoped that the relevant European and national institutions will devote increased resources to the development of such indicators in the coming years.

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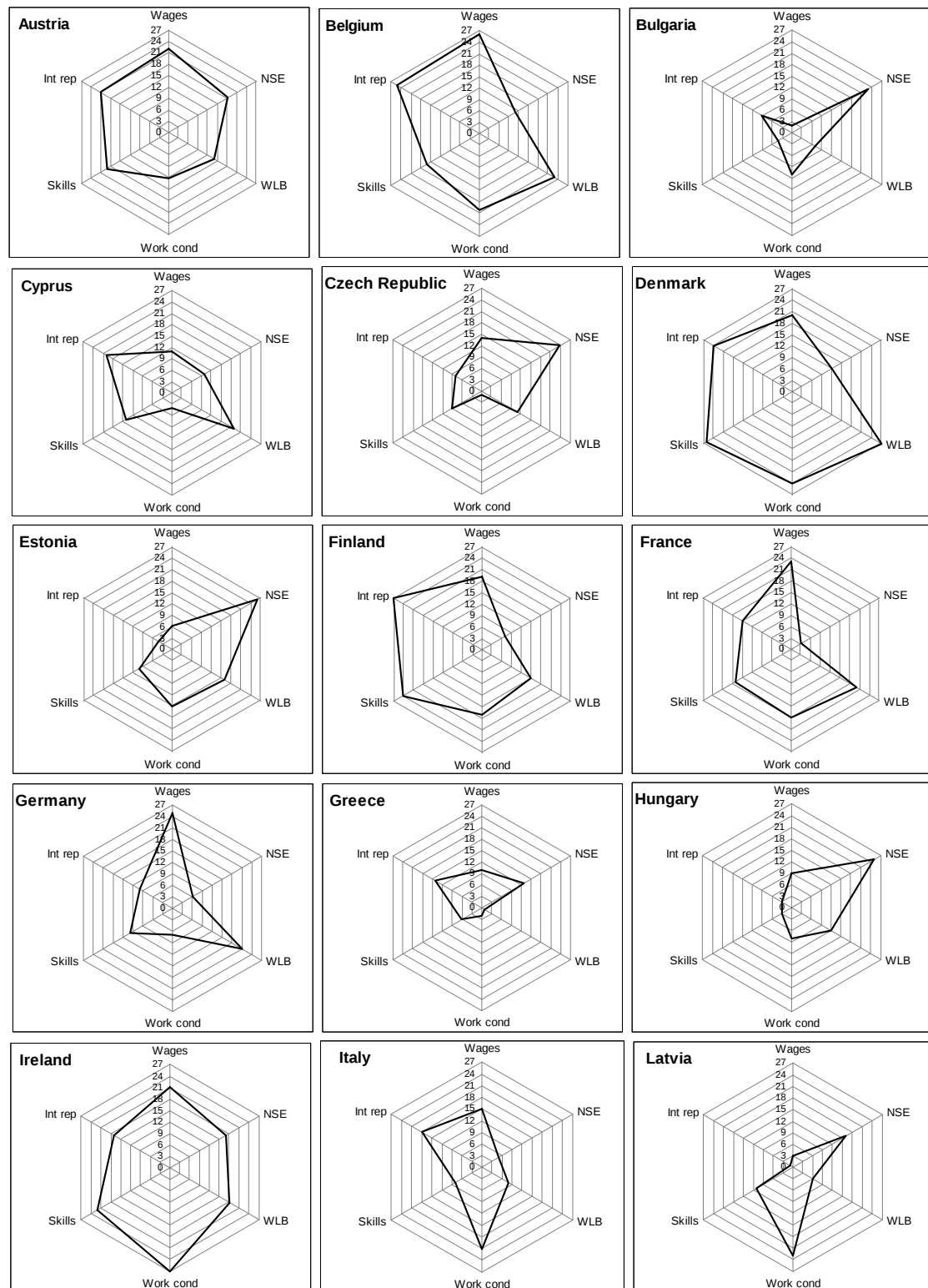
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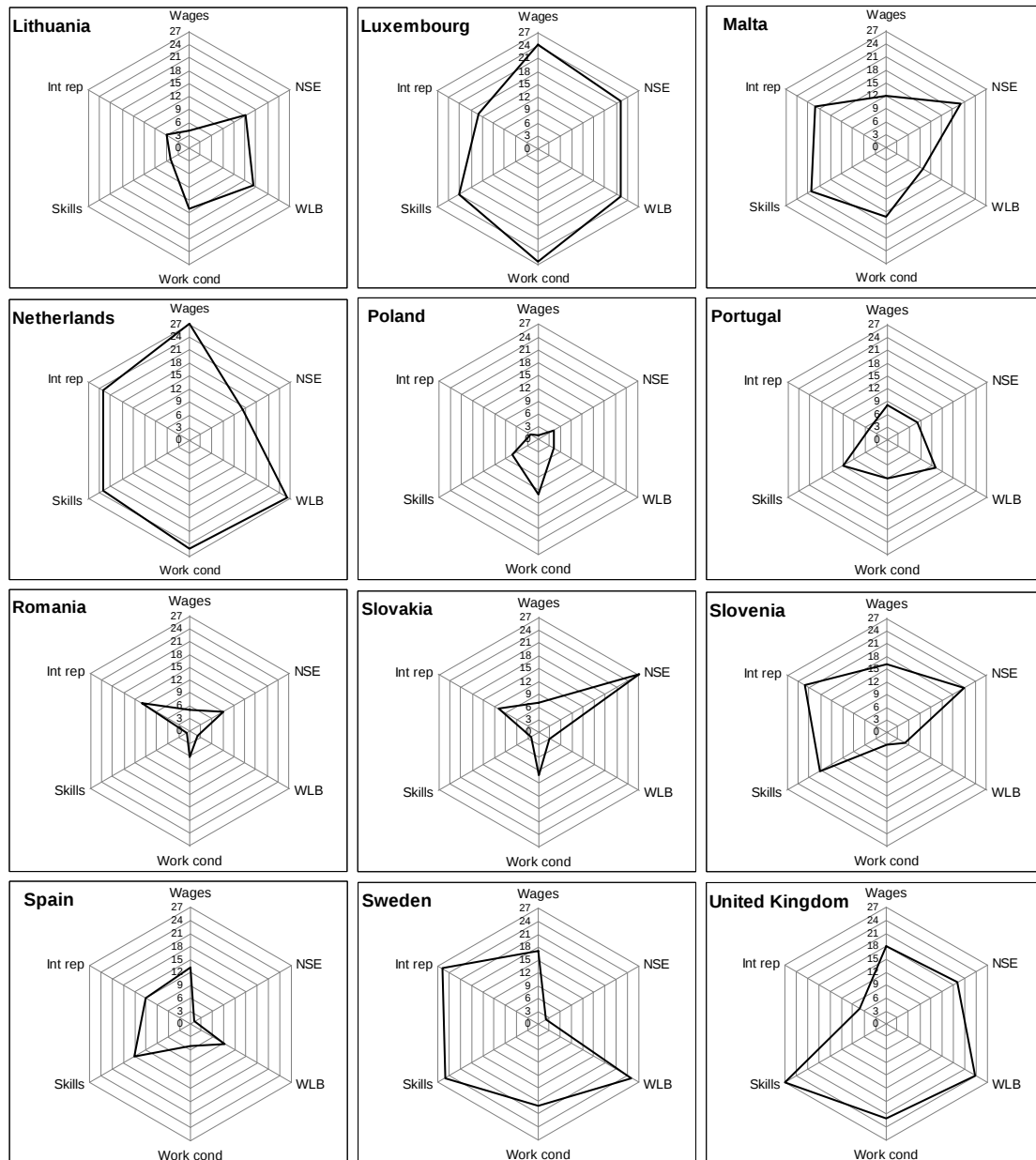
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Appendix

Figure A1: Country-specific radar charts for ranking on job quality sub-indices





Source: own calculation.

Table A1: Standard deviations of country rankings on the six sub-indices from their respective average ranking

	SD
Portugal	2,927
Luxembourg (Grand-Duché)	3,371
Ireland	3,882
Austria	3,933
Malta	4,309
Poland	4,355
Romania	4,472
Netherlands	4,690
Spain	5,307
Denmark	5,529
Greece	5,538
Lithuania	5,776
Belgium	5,776
Cyprus	6,000
Italy	6,411
France	6,928
United Kingdom	6,950
Finland	7,055
Bulgaria	7,448
Czech Republic	7,627
Germany (including ex-GDR from 1991)	7,737
Estonia	8,010
Hungary	8,149
Slovenia	8,183
Latvia	8,390
Slovakia	9,077
Sweden	9,099
Ave SD	6,183

Source: own calculation.

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