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Extensive Vs. Intensive Margin: Changing Perspective on the Employment Rate

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EXTENSIVE VS. INTENSIVE MARGIN: CHANGING PERSPECTIVE ON THE EMPLOYMENT RATE*

by Andrea Brandolini and Eliana Viviano

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Abstract

The employment rate is one of the most popular statistics to monitor labour markets, but it measures only the extensive margin of labour supply, i.e. the decision of work. The intensive margin (how much to work) receives considerably less attention. If labour markets are characterised by a very high proportion of stable full-time jobs, a set of statistics based only on the extensive margin is fully satisfactory, as individuals have the same intensity of work. This does not hold, however, for many European labour markets, where the share of part-time jobs (how many hours of work) and limited duration contracts (how many months of work) have risen considerably over the past 15 years. In this paper we propose a straightforward way to calculate an employment rate weighted by the intensive margin. We present statistics for 26 EU countries, based on EU-SILC 2007, for both individuals and households. In Southern Europe countries (Spain, Greece and Italy) the"intensive margin" employment rate is very close (and in some case higher than) to UK, France and Germany and not far from the EU average. This is due to the lower share of part-time employment on total employment in Southern Europe. We also present two simple applications: a decomposition of the intensive margin and a cross-country comparison of inequality in the distribution of work.

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1 Introduction

Extensive margin refers to the use of a resource; intensive margin refers to the degree (intensity) to which the resource is utilized or applied.[1] In the study of labour supply, extensive and intensive margin refer to the two (related) decisions that a worker has to make: whether to work at all and how many hours to work. In what follows we will refer to the intensive margin also as intensity of work.

The employment and the unemployment rates are the main statistics to measure the extensive margin. The intensive margin, instead, receives considerably less attention and statistics on hours worked by individuals (or hours that an unemployed person would be willing to work) are not systematically produced and monitored.

According to the internationally harmonized ILO definition of employment, a person is classified as employed if she has worked at least one hour during the week preceding the interview time. It follows that a person working 40 hours per week and one who works only 1 hour per week are treated in the same way. If labour markets are characterised by a high share of stable full-time jobs, there is no need to distinguish between the extensive and the intensive margin. However, people often differ because of hours/days/months worked.

According to EU-LFS, in 2007 the share of part-time workers on total employment was equal to 26 per cent in Germany, to 14 in Italy and to 47 percent in the Nederland. The share of limited duration employees on total employees was close to 32 percent in Spain, to 15 percent in Germany and France, 13 percent in Italy, 28 percent in Poland, 22 in Portugal.

Macroeconomists analyse how the intensive margin reacts to the business cycle (e.g. Christiano and Eichenbaum, 1992). The intensive margin is also analysed in the field of optimal taxation to evaluate the impact of different taxes on labour supply (e.g. Meyer and Rosenbaum, 2001). We argue however that it matters also for the analysis of many issues related to social exclusion, and especially for cross-country comparisons.

In fact, comparisons based only on the extensive margin are not very meaningful if the composition of employment differs across countries and time.

Statistics on social exclusion by work intensity (measured as the share of months worked per year) are regularly produced by Eurostat, within the set of the so-called Laeken indicators. Hours worked per week, which are a rather natural measure of the intensity of work are instead not taken into account, probably because they are viewed as fully determined by the supply side. Part-time jobs are typically viewed as contracts which improve female labour market participation as they allow women to reconcile work and other household activities. However, during the recession of 2009 in the US and some EU countries, the number of people working part-time but wishing to work full-time job -the so-called "involuntary" part time workers- increased considerably (in Italy in 2009 involuntary part-time workers increased by more than 20 percent). Part-time jobs might also be created because of sectoral specific factors: for instance, part time jobs are widely used in the retail trade and it is difficult to believe that they are only supply-determined.[2]

In what follows we deal with both dimensions of work intensity, months and hours worked. We propose a very simple measure of the employment rate weighted by the intensity of work. Our application is extremely simple and can be improved in many directions, most of them related to measurement issues. Our contribution is however aimed at showing that when we analyse both the extensive and the intensive margins, the results of a cross-country comparison of employment in Europe change considerably.

Our measure is simply the ratio between the amount of hours and months worked by individuals normalized by a benchmark, equal to the number of hours and months worked by a full-time worker with a stable job. This measure is continuous and it offers many advantages. First, it is very easy to calculate also the household work intensity, equal to the sum of intensities of all household members. Other household indices, like

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[1] This distinction was already known to Ricardo, referred to the use of land.

[2] Part time is classified as involuntary if the person would prefer to work full time but was unable to find a full time position.

for instance the jobless household rate, again refer only to the extensive margin and are not suitable for the study of how household members allocate work. For instance, the jobless household rate is not useful to deal with the typical case in which a woman chooses to work part-time as her income is partly integrated by her spouse, who work full time, through a within-household redistribution of resources.

Moreover, we show that our weighted employment rate can also be used to investigate inequality in the distribution of work, i.e. whether there are types of individuals or households who are more at risk to be excluded from the labour market. All these issues will be briefly discussed by carrying out cross-country comparisons for the 26 EU countries included in EU-SILC. We use EU-SILC, instead of EU-LFS, for 2 main reasons: the first is that EU-SILC reports the number of months worked by individuals during the reference year. This relevant dimension of work intensity is instead absent in EU-LFS. Second, EU-SILC allows us for the construction of household-based measures of employment, whereas household variables in EU-LFS are currently not available.

The paper is organized as follows. In section 2 we present several traditional employment rates based on slightly different definition of employment, all indirectly related to intensity of work. We show that, as a consequence of work intensity, even slightly different definitions of employment can give rather different results. In section 3 we briefly describe our measure of work intensity calculated at the level of individuals for all the EU-countries. In section 4 we replicate our exercise at the household level. In section 5 we present two very simple applications of our index: the first is a decomposition aimed at evaluating which between part-time and limited duration contracts have a higher impact in reducing the intensive margin in EU countries. The second is the study of the distribution of work across households and inequality in the labour market. Finally, section 6 concludes.

2 The definition of employment

The employment rate is mainly a measure of the “extensive margin” labour supply as it is based on the individual decision to work or not during a given period, typically a

given week. In this section we show that small changes in definition of employment, related to the intensive margin, can significantly affect cross country comparisons.

The first column of Table 1 reports the standard employment rate based of EU-LFS data for 2007 (Table 1 (a) reports the estimates for all the population, Tables (b) and (c) for men and women respectively). Here an individual is classified as employed if she has worked at least one hours in a reference week, i.e. independently on her working time and on the length (in days/months) of the job contract. The general picture that emerges is very well known. The employment rate varies greatly among European countries, being the highest in the Nordic countries, Nederland, Austria and lower in some Southern Europe countries like Italy and Greece.[3]

To show how the employment rate varies with the intensive margin of labour supply in columns 2-5 we have progressively restricted the definition of employment. In column 2 we consider as employed only those who have worked at least 1 months during the year; in column 3 those who have worked at least 6 months, in the fourth column those who have worked at least 12 months, in the fifth those who have worked at least 12 months full time. Note that each definition of employed implies progressively higher intensive margin. These additional estimates are based on EU-SILC. Unfortunately, EU-SILC does not contain information on employment which is directly comparable with EU-LFS (the variable: “Have you worked during the reference week” is available only for a limited number of countries). Moreover, the EU-LFS does not contain information on the total number of months worked per year.

Consider the second column. Since it refers to people who have worked at least one month (if they have worked the majority of the weeks of the month) the employment rate calculated on this set of workers should be very close to the pool of employed identified of the basis of the ILO definition (those who worked at least one week). To ensure full comparability we have weighted observations. In EU-LFS, each worker is observed 4 times and, if employed, concur to determine the employment rate

[3] Differences can be imputed to the female employment rate. For instance, according to EU-LFS in 2007 the Italian male employment rate was just slightly lower than the EU average (1.8 points less), while the Italian female employment rate is 12.7 points lower.

with a weight equal to .25 each quarter. For comparability, in the calculation of the employment rate based on EU-SILC, people who worked from 1 to 3 months have weight .25, those working 4-6 have weight .5, those 7-9 have weight .75, those working all the year have weight equal to 1.

Indeed, we find that the standard employment rate and the one based on the previous month are often very similar. Large differences can be found in the Nederland and Denmark, and to some extent also in Germany and UK. We cannot address whether these differences may be imputed to the presence of jobs lasting less than one month in these countries, or to the EU-SILC sample design. Nevertheless, in general, for all the other countries EU-SILC closely resembles EU-LFS (see Spain, France, Finland, Italy, Poland).

If instead we consider longer periods, like 6 months or 12 months the results change drastically and these two more restrictive employment rates (weighted as above) are significantly lower than the standard ILO based employment rate, especially in Austria, Denmark, Nederland and Slovenia. Employment rates are even smaller if we consider as employed only those who have worked full time for all the year (last column).

Consider now for instance Italy (but similar results hold also for Hungary, France and to some extent for Poland). The standard ILO employment rate is around 7 points lower than the EU average. This differential is equal to 4 if we look at people working for al least 6 months, to 3 points if we look at those working all the year, to 0 if we consider only full time workers working all the year.

Finally, consider the last column of Table 1, which reports the share of population with positive labour income on total population. This is the implicit distribution of employment underlying the income distribution, often used to analyse the relationship between the distribution of income and the employment status. As in the literature, we have not weighted individuals according to the length of time worked (as made in columns 2-5). Note also that the index of column 6 measures again the extensive margin as two persons, one who have worked just one hour per year and with positive but small income and one who have worked full time for all year, with (presumably) larger

income, are treated in the same way. In some sense this index is a pure measure of the extensive margin, even more pure than the standard employment rate which for instance weights a person working just one quarter over a year by .25 (and implicitly takes roughly into account also the intensive margin).

The last column differs a lot from the others in the Table. This might depend on data quality and related technical measurement issues, but might also depend from the fact that looking only at the extensive margins (and/or not measuring the intensive margin properly) can severely affect the study of the distribution of work and its relationship with the distribution of income.

3. Measuring the intensive margin

As mentioned above, starting from two measures of work intensity, (1) months worked per year and (2) hours per week, we construct a simple index of annual work intensity.

We focus only on EU-SILC data, as the EU-LFS does not contain the number of months worked per year.[4] Further, EU-SILC reports also the usual working time.[5]

A simple way to take into account how much intensively people work is to weight the individual contribution to the employment rate by individual intensity. We define intensity as the ratio between the actual hours/months worked by the i*th* individual (*i=1, 2,* …) and a benchmark which corresponds to the number of workable hours/month in case of full-time permanent employment.

Let I_i and indicator function equal to 1 if the person is employed and 0 otherwise, and let ϖ_i is the i*th* individual's intensity of work. Then, an intensity-weighted employment rate is equal to:

[4] Differently from the EU-LFS, the March supplement of the US CPS ask people to report the number of weeks worked during the previous year.

[5] EU-LFS, in analogy with the reference period used for the employment status, collects also hours worked during the previous week. However, for our purposes, usual hours worked are more useful as they are probably a better proxy of hours worked during the year.

$$(1) \qquad E = \frac{\sum I_i \varpi_i}{P}$$

where P is the size of the working age population.

Our normalization of hours and months worked is straightforward: (1) we divide months worked per year by 12; (2) we normalize hours worked per week by dividing the them the median of the distribution of hours worked in Europe as a whole (26 countries included in EU-SILC), equal to 40 hours per week. Finally, we define the annual work intensity as the hours worked per week, times the number of week per months (i.e. 4.3) times the number of months per year.

People who do not work are assigned 0 hours and 0 months worked and consequently have 0 work intensity. The non-employment rate calculated only on the extensive margin corresponds to the share of population who have 0 work intensity and the to ratios fully coincide.[6] If all individuals work full time for all the year, then our measure fully corresponds to the standard extensive margin employment rate. Note that, if in a country people on average work more than 40 hours, then our employment rate may be even greater than 1.

Table 2 reports the employment rate weighted by the number of months worked by individuals, as a fraction of the year. On average in Europe employed men work for more than 70 percent of a year (almost 9 months); 60 percent if women (almost 7 months). If we consider country differentials, similarly to the picture based on the standard employment rate, we find that Southern Europe countries like Greece and Italy are the ones with the lowest employment rate, especially among women. The picture instead changes is we consider the employment rate weighted by hour work intensity (Table 3). The EU-26 hours weighted employment rate is now equal to roughly 63 percent (50 percent among women, 76 percent among men). The Nordic countries are still those with the highest employment rate. However, countries where part-time jobs are numerous, like the Netherlands and Ireland, register now the lowest employment

[6] The face value of the employment rate calculated as in (1) reflects the normalization used for hours worked (the adopted normalization for months is instead rather obvious). However, as long as it is kept constant for all the EU countries, one can carry out meaningful country comparisons.

rates in Europe. Note also that the German employment rate is now much closer to the EU average than the standard measure.

In Table 4 we present our measure of the annual work intensity. Because of the lack of information on hours worked in the year, we assume that hours worked are constant during the all year. This assumption, of course, is very strong, especially within our framework, as both temporary and part time jobs might be concentrated among specific groups of weak workers (young people with no work experience, immigrants, old workers). Notwithstanding these limits, the employment rate weighted by annual work intensity is equal to 59.9 in EU. It is 62.1 in Greece and 60.5 in Spain. The German rate is just 58.6 percent.

4. Household adjusted intensive margin

Since household member share their resources the study of social exclusion is typically conducted at the household level. At the beginning of the Nineties, theoretical and empirical work started analyzing also joint labour supply decisions of individuals within the same household. This perspective is powerful especially to study women labor supply, which is typically influenced by the labour supply of the husband, according to spouses relative wages and the intra-household allocation of work and child care. This “compensatory” behaviour, which are affected also by cultural factors, is more frequent in Southern Europe countries: as shown by Tables 2-4. Female employment rates in Greece, Spain and Italy (especially the hour-intensity weighted), are remarkably lower than the EU average, while the male employment rates are higher.

One of the advantages of the weighted employment rate proposed in this paper is that it can be easily adapted to take into account employment of all household members. The most popular statistics about employment of households is the so-called jobless household rate, equal to the share of households where no one works on total households. It is the household equivalent of the non-employment rate, and as the employment rate is based on a binary variable that does not allow for dealing with the intensive margin. Instead, within a household, work intensity may be even more relevant as total labour income is in Europe the main source of income of households.

Moreover, the jobless household rate does not help us to take into account how many individuals economically depend on the same labour income. Thus, two households, one single member household whose component works and one with N members, but just one working are treated in the same way.

In this section we propose a simple intensity adjusted household employment rate. In order to identify, who, among household members, might work, we adopt the same definition used by Eurostat for identifying jobless households. In particular we focus only on working age population (aged 16-60 as Eurostat does) and we exclude dependent children aged 16-24, who are full time student and inactive, and cohabiting with at least one of their parents. In what follows we refer to these individuals as eligible.

We then define:

1. the "household adjusted hours intensity", equal to the sum of hours worked by each member (normalized by 40 as the individual work intensity) and divided by the total number of eligible individuals in the household (as in the Laeken indicators). This is a per capita index of the total amount of hours worked by the household;

2. the "household adjusted month intensity", as the sum of months worked by each member (normalized by 12, i.e. individual month intensity) and divided by the total number of eligible individuals in the household;

3. finally, we define a measure of overall household weighted work intensity. For each household we sum the annual "potential" work intensity of each eligible individual. We then derive let the annual work intensity at the household level be equal to the ratio between the sum of the actual and the potential work intensity. Also in this case we get a per capita overall weighted employment rate.[7]

[7] Note that one could also evacuate the welfare consequence of the amount of work within each household by dividing household work intensity by the equivalized household size.

Note that in this way also individuals who do not work at all may have positive work intensity if other household members work. This can then be interpreted as the share of total work a person within the household can benefit and it is suitable to describe the compensatory behaviour described above (husband working, wife not working or working part-time). This statistics is still calculated at the individual level. Note also that one can calculate a household-level employment rate, equal to the ratio between the sum of overall actual work intensity and potential household work intensity.

Per capita statistics are reported in Table 5. Consider the overall household average measure of the intensive margin. The EU 26 average is equal to 61.9 per cent. In Sweden, Iceland and Norway this index is remarkably higher than the average, but in Denmark and Netherlands, France, and now also in Germany and it is lower. In Spain and Greece household average work intensity is higher than the EU average; it is close to the average in Italy. This evidence suggests that in Southern countries men compensate the low labour supply of their spouses by more than it actually happens in many other European countries like Germany.

5. Two simple applications

Our measures of work intensity can be easily applied to the study of some aspects of the European labour market. In this section we present two simple applications based on our household measure of the intensive margin, but the same conclusions holds for individual measures.

5.1. Decompositions

Our measure of employment rate adjusted by work intensity can be easily decomposed in numerous ways: for instance one may calculate what is the contribution of the spouses to the overall household index, or the impact of temporary employment (often concentrated among young workers and women) on total household intensive margin, or how is the average composition of the intensive margin. This last exercise is presented in Table 6.

As the overall adjusted rate is simply equal to the ratio between the total effective labour supply of household members and a theoretical measure of full employment at

the household level, the distance between effective and theoretical employment is determined by

a. the effect of lower hours worked of some members within the household (part-time effect);

b. the effect of lower month worked of some members within the household (temporary contract effect);

c. the total lack of employment of some members within the household (no work).

The results of this simple decomposition are reported in Table 6. The overall mean household intensity in EU is equal to 62 percent and, on average the share of non-utilized labour corresponds to 38, of which: (1) 4 points are imputed to hours (i.e. to people working less than 40 hours per week, (2) 4 points to the lack of months (i.e. to the effect on the overall index of people not working all the year) and (3) 30 points to the total lack of employment for some household members. The relative size of each component suggests that still in Europe labour is not utilized because of the total lack of employment. The fact that many jobs may last for less than 1 year has instead a rather limited impact and its size is comparable with the one of hours worked. This is generally true for all the European countries. This decomposition can also help to explain country differentials in the household average intensive margin. For instance in France part time employment reduces the intensive margin by more than temporary contracts, while the opposite happens in Germany. In countries like Czech Republic, Iceland, Poland and Slovakia, the high intensive margin is mainly determined by a working time longer than the EU average for all the household members.

5.2. The distribution of work

A recent strand of literature about social exclusion focuses on the distribution of work among households to verify whether the status of being jobless is concentrated among particular types of households. For instance, Gregg and Wadsworth (2008) propose an index based of the jobless household rate which measures the distance between the actual jobless household rate and the rate that would prevail in the

economy if jobs were randomly distributed across individuals. A drawback of such an index is that it has not a fixed range of variation and it is difficult to be interpreted especially when it is negative.[8]

Our continuous measure of work intensity, instead, allows us to look at the distribution of work among individuals and households in a rather natural way. In Table 7 we report the Gini index of the distribution of work for each EU country and for all the 3 measures proposed: hours intensity, month intensity and overall intensity. In this way we can evaluate inequality in the distribution of work within the use of standard statistics like the Gini index. The Table show that inequality is rather similar across Europe. In general inequality in the distribution of work is higher in Poland and Germany, while it is lower inequality in Nordic countries. Inequality in Southern countries, like Italy, Spain and Greece is lower than Germany and UK, and rather similar to France and the EU average.

Finally note as long as one uses other decomposable measures of inequality (like for instance the Theil index) , it is possible to decompose inequality for instance by socio-demographic groups and by geographical area, and any other relevant source of heterogeneity.

6. Conclusions

In this paper we present a simple weighted employment rate which takes into account not only the status of being employed, but also how much intensively people work. In particular we consider three dimensions of the intensive margin: (1) the number of hours worked during the week; (2) the number of months worked during a year; (3) an estimate of total hours worked during the year. We carry out our exercise both at the individual and at the household level. This last exercise is aimed at showing that the use of statistics for the intensive margin allows us to obtain information on how household members allocate work among them. Our continuous measure of the

[8] When the index proposed by Gregg and Wadsworth (2008) and Gregg, Scutella and Wadsworth (2010) is negative, then there are less jobless households than in the case of random distribution of employment. This positive circumstance however is treated as un unequal distribution of work among households.

intensive margin allows also to deal with issues like cross country comparisons which rule out the effects of the composition of employment. When we control for work intensity, we find that the amount of labour supplied by Southern Europe countries like Spain, Greece and Italy is not so lower, and in some cases higher than France and Germany.

We have to admit that our measure of work intensity is very rough and based on some assumptions to overcome the consequence of the lack of information on hours worked over periods longer than one week. Our exercise, however, is aimed at showing that when one carries out cross-country comparisons of the employment status of the population, many aspects can affect the results. In particular we believe that the changes occurred in the European labour market during the last 15-20 years call for finding new, widely accepted and synthetic indicators of the distribution of employment.

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Table 1 (a): Employment in Europe: different definitions of the status of being employed. All.

(percentages)

Country	At least 1 week	At least 1 month (1)	At least 6 months (2)	At least 12 months (3)	At least 12 months full time (4)	Positive labour income (5)
			(a)- All			
Austria	71.4	66.0	61.1	58.4	48.8	72.7
Belgium	62.0	61.0	57.8	56.4	43.9	65.4
Cyprus	71.0	66.8	62.0	58.7	54.3	73.3
Czech Republic	66.1	64.0	61.1	59.6	57.8	68.2
Germany	69.4	64.3	61.5	59.9	44.8	71.6
Denmark	77.1	69.2	67.1	66.0	57.7	85.2
Estonia	69.4	69.4	65.5	63.2	59.5	75.4
Spain	65.6	65.3	61.5	59.4	52.9	69.0
Finland	70.3	69.5	62.1	58.2	51.9	81.9
France	64.3	64.2	60.6	58.8	48.4	71.1
Greece	61.4	60.1	57.4	55.4	50.9	64.3
Hungary	57.3	59.4	55.3	53.0	50.6	68.5
Ireland	69.1	63.7	58.7	56.3	43.9	71.5
Iceland	85.1	86.1	79.5	75.1	59.8	94.7
Italy	58.7	57.9	55.9	54.8	49.1	66.6
Lithuania	64.9	68.0	64.5	62.7	58.1	72.1
Luxembourg	64.2	66.0	63.6	61.8	50.0	68.8
Latvia	68.3	69.6	67.4	65.0	61.9	78.8
Netherlands	76.0	66.0	57.8	56.2	35.3	78.8
Norway	76.8	73.2	70.6	68.9	56.7	87.5
Poland	57.0	57.8	53.8	51.6	46.7	59.8
Portugal	67.8	66.5	63.5	61.7	57.1	67.4
Sweden	74.2	76.7	71.9	70.3	54.6	87.1
Slovenia	67.8	60.7	57.7	56.3	55.2	77.4
Slovakia	60.7	63.4	60.9	59.5	58.0	67.9
United Kingdom	71.5	66.4	63.9	62.7	48.3	73.2
EU (26 countries) (6)	65.4	63.6	60.3	58.6	48.7	70.3

Source and notes: Authors' calculations on EU-SILC and EU-LFS data, year 2007. (1) Based of the variables pl070 and pl072. People who worked from 1 to 3 months have weight .25, those working 4-6 have weight .5, those 7-9 have weight .75, those working all the year have weight equal to 1; (2) Based of the variables pl070 and pl072. People who worked from 7 to 9 months have weight .75, those working all the year have weight equal to 1; (3) Based of the variables pl070 and pl072 and px050; (4) Based of the variables pl070. (5) Based of the variables py010g, py010n, py050g and py050n; (6) EU-27 countries for the EU-LFS.

Table 1 (b): Employment in Europe: different definitions of the status of being employed. Men

(percentages)

Country	At least 1 week	At least 1 month (1)	At least 6 months (2)	At least 12 months (3)	At least 12 months full time (4)	Positive labour income (5)
			(b)- Men			
Austria	78.4	74.9	70.2	67.4	64.8	80.7
Belgium	68.7	67.2	64.3	63.1	58.8	71.9
Cyprus	80.0	75.6	71.4	68.2	65.8	84.4
Czech Republic	74.8	73.6	71.1	69.7	68.7	77.1
Germany	74.7	70.8	67.9	66.0	61.8	77.2
Denmark	81.0	74.6	72.7	71.9	68.8	88.2
Estonia	73.2	73.5	69.9	67.7	65.5	79.5
Spain	76.2	76.9	73.6	71.5	68.3	79.6
Finland	72.1	72.0	65.4	62.1	58.1	83.4
France	69.2	68.8	65.5	63.7	60.3	75.8
Greece	74.9	72.9	70.0	67.7	64.9	77.0
Hungary	64.0	65.9	61.9	59.5	57.6	74.1
Ireland	77.4	70.6	66.0	63.8	57.9	76.7
Iceland	89.1	89.5	83.1	78.9	71.5	97.1
Italy	70.7	70.9	69.0	67.9	65.3	78.7
Lithuania	67.9	70.7	66.8	65.0	61.7	75.6
Luxembourg	72.3	76.4	74.2	72.5	70.7	79.1
Latria	72.5	73.7	71.5	68.8	65.9	82.9
Netherlands	82.2	72.8	63.9	62.5	55.3	85.6
Norway	79.5	77.6	75.1	73.8	69.0	90.6
Poland	63.6	64.4	60.3	58.0	54.2	67.3
Portugal	73.8	72.6	69.4	67.7	65.1	74.7
Sweden	76.5	79.4	74.7	73.1	66.5	88.6
Slovenia	72.7	66.1	63.2	61.7	60.9	82.0
Slovakia	68.4	70.1	67.5	66.0	65.2	75.3
United Kingdom	77.5	69.4	67.1	66.0	60.8	78.4
EU (26 countries) (6)	72.5	70.9	67.6	65.9	62.1	77.5

Source and notes: Authors' calculations on EU-SILC and EU-LFS data, year 2007. (1) Based of the variables pl070 and pl072. People who worked from 1 to 3 months have weight .25, those working 4-6 have weight .5, those 7-9 have weight .75, those working all the year have weight equal to 1; (2) Based of the variables pl070 and pl072. People who worked from 7 to 9 months have weight .75, those working all the year have weight equal to 1; (3) Based of the variables pl070 and pl072 and px050; (4) Based of the variables pl070. (5) Based of the variables py010g, py010n, py050g and py050n; (6) EU-27 countries for the EU-LFS.

Table 1 (c): Employment in Europe: different definitions of the status of being employed. Women

(percentages)

Country	At least 1 week	At least 1 month (1)	At least 6 months (2)	At least 12 months (3)	At least 12 months full time (4)	Positive labour income (5)
			(c)- Women			
Austria	64.4	74.9	52.0	49.4	32.7	64.4
Belgium	55.3	67.2	51.4	49.7	28.9	55.3
Cyprus	62.4	75.6	53.0	49.5	43.1	62.4
Czech Republic	57.3	73.6	51.3	49.7	47.1	57.3
Germany	64.0	70.8	55.2	53.8	27.7	64.0
Denmark	73.2	74.6	61.5	60.0	46.6	73.2
Estonia	65.9	73.5	61.5	59.1	54.2	65.9
Spain	54.7	76.9	49.3	47.2	37.2	54.7
Finland	68.5	72.0	58.7	54.2	45.5	68.5
France	59.7	68.8	55.9	54.1	36.8	59.7
Greece	47.9	72.9	44.9	43.1	37.0	47.9
Hungary	50.9	65.9	49.0	47.0	44.1	50.9
Ireland	60.6	70.6	51.4	48.6	29.6	60.6
Iceland	80.8	89.5	75.9	71.2	47.6	80.8
Italy	46.6	70.9	42.9	41.8	32.9	46.6
Lithuania	62.2	70.7	62.4	60.6	54.9	62.2
Luxembourg	56.1	76.4	53.0	51.1	29.4	56.1
Latvia	64.4	73.7	63.5	61.6	58.2	64.4
Netherlands	69.6	72.8	51.6	49.8	15.1	69.6
Norway	74.0	77.6	65.9	63.9	43.8	74.0
Poland	50.6	64.4	47.4	45.4	39.5	50.6
Portugal	61.9	72.6	57.7	55.9	49.3	61.9
Sweden	71.8	79.4	69.1	67.5	42.8	71.8
Slovenia	62.6	66.1	52.1	50.7	49.3	62.6
Slovakia	53.0	70.1	54.8	53.5	51.4	53.0
United Kingdom	65.5	69.4	60.8	59.4	36.1	65.5
EU (26 countries) (6)	58.3	70.9	53.1	51.4	35.5	58.3

Source and notes: Authors' calculations on EU-SILC and EU-LFS data, year 2007. (1) Based of the variables pl070 and pl072. People who worked from 1 to 3 months have weight .25, those working 4-6 have weight .5, those 7-9 have weight .75, those working all the year have weight equal to 1; (2) Based of the variables pl070 and pl072. People who worked from 7 to 9 months have weight .75, those working all the year have weight equal to 1; (3) Based of the variables pl070 and pl072 and px050; (4) Based of the variables pl070. (5) Based of the variables py010g, py010n, py050g and py050n; (6) EU-27 countries for the EU-LFS.

Table 2: Mean month intensity in Europe
(percentages)

Country	Men	Women	All
Austria	73.9	55.9	64.9
Belgium	67.2	54.3	60.7
Cyprus	74.6	57.0	65.7
Czech Republic	73.0	54.0	63.4
Germany	70.2	57.9	64.1
Denmark	75.1	64.3	69.7
Estonia	73.4	65.2	69.1
Spain	76.2	52.5	64.5
Finland	70.6	65.0	67.8
France	68.0	58.8	63.4
Greece	72.3	46.9	59.5
Hungary	65.4	52.6	58.8
Ireland	70.9	57.3	64.2
Iceland	89.2	81.8	85.6
Italy	70.5	44.5	57.5
Lithuania	70.3	64.9	67.5
Luxembourg	75.9	54.9	65.4
Latria	73.0	65.3	69.0
Netherlands	72.0	58.1	65.1
Norway	78.8	69.1	74.0
Poland	63.7	50.6	57.1
Portugal	71.9	60.0	65.8
Sweden	79.6	73.7	76.7
Slovenia	65.5	54.6	60.1
Slovakia	69.6	56.7	62.9
United Kingdom	80.1	68.8	74.2
EU (26 countries)	71.6	56.6	64.0

Source: Authors' calculations on EU-SILC data, year 2007. Hours worked are the sum of the variables pl060 (usual hours in the main job) and pl100 (usual hours in the second, third, .., job). Non-employed people have zero hours worked. Hours are normalized by 40 hours per week, equal to the 50^{th} percentile of the distribution of hours worked in Europe.

Table 3: Mean hour intensity in Europe
(percentages)

Country	Men	Women	All
Austria	79.8	47.6	63.7
Belgium	71.7	46.2	59.0
Cyprus	85.0	55.8	70.2
Czech Republic	83.2	55.2	69.0
Germany	77.1	48.0	62.6
Denmark	73.9	56.2	65.0
Estonia	77.9	65.5	71.4
Spain	80.0	48.4	64.4
Finland	70.7	58.7	64.8
France	71.3	51.8	61.5
Greece	84.9	47.5	66.1
Hungary	70.9	54.7	62.5
Ireland	71.8	42.2	57.1
Iceland	105.0	74.0	89.8
Italy	76.9	40.9	58.9
Lithuania	74.6	66.3	70.3
Luxembourg	82.8	47.0	64.9
Latvia	81.0	68.0	74.2
Netherlands	75.2	41.4	58.4
Norway	81.3	59.6	70.6
Poland	74.6	51.5	62.9
Portugal	72.3	56.0	64.0
Sweden	79.9	65.0	72.5
Slovenia	70.1	55.2	62.8
Slovakia	77.1	57.7	67.0
United Kingdom	73.8	52.2	62.9
EU (26 countries)	75.9	49.8	62.8

Source: Authors' calculations on EU-SILC data, year 2007.Month worked are the sum of the variables pl070 (month worked full time) and pl072 (month worked part time). Non-employed people have zero months worked. Month are normalized by 12.

Table 4: Mean overall (months and hours) intensity in Europe
(percentages)

Country	Men	Women	All
Austria	76.1	44.0	60.0
Belgium	68.5	42.8	55.6
Cyprus	81.0	51.2	65.9
Czech Republic	81.0	52.3	66.5
Germany	73.0	44.0	58.6
Denmark	72.2	53.5	62.9
Estonia	74.2	61.0	67.3
Spain	76.5	44.1	60.5
Finland	67.8	55.1	61.5
France	66.9	47.5	57.1
Greece	80.8	43.6	62.1
Hungary	66.6	49.5	57.7
Ireland	70.3	40.7	55.7
Iceland	102.2	70.7	86.7
Italy	73.4	37.8	55.6
Lithuania	70.3	62.5	66.2
Luxembourg	80.2	45.1	62.7
Latvia	76.4	63.8	69.8
Netherlands	69.3	36.6	53.0
Norway	80.0	57.3	68.8
Poland	68.8	46.8	57.7
Portugal	68.4	52.0	60.1
Sweden	78.6	63.4	71.0
Slovenia	66.7	52.5	59.8
Slovakia	74.1	55.2	64.3
United Kingdom	83.3	54.4	68.2
EU (26 countries)	73.5	46.6	59.9

Source: Authors' calculations on EU-SILC data, year 2007. Annual work intensity is equal to normalized hours per week, calculated as in Table 2, times the fraction of months worked per year, calculated as in Table 3.

Table 5: Household mean work intensity
(percentages)

Country	Hour weighted	Month weighted	Overall weighted
Austria	64.9	63.1	61.7
Belgium	62.0	63.1	58.7
Cyprus	79.3	55.2	75.5
Czech Republic	72.9	56.7	70.8
Germany	63.2	65.9	59.3
Denmark	63.8	68.6	60.8
Estonia	76.7	64.9	72.8
Spain	69.2	54.2	65.7
Finland	65.2	66.8	62.0
France	64.6	64.6	60.6
Greece	69.3	54.6	65.7
Hungary	65.7	56.1	60.4
Ireland	59.7	57.1	57.7
Iceland	93.2	62.6	89.7
Italy	64.0	59.7	61.0
Lithuania	75.6	58.9	72.2
Luxembourg	70.8	61.2	68.8
Latvia	77.3	59.0	73.7
Netherlands	58.6	62.6	53.8
Norway	71.7	71.0	68.6
Poland	65.0	53.2	60.6
Portugal	68.0	53.2	64.4
Sweden	73.3	68.6	71.3
Slovenia	70.0	53.4	67.3
Slovakia	72.6	52.0	70.4
United Kingdom	63.9	60.8	62.5
EU (26 countries)	65.2	60.9	61.9

Source and notes: Authors' calculations on EU-SILC data, year 2007. Hours worked are the sum of the variables pl060 (usual hours in the main job) and pl100 (usual hours in the second, third, .., job). Non-employed people have zero hours worked. Month worked are the sum of the variables pl070 (month worked full time) and pl072 (month worked part time). Non-employed people have zero months worked. Hours and month worked are summed by household and divided by the maximum possible intensity, equal to 40 hours per week times 4.3 weeks per month times 12 months per year times the number of working age individuals within the household. Dependent children excluded.

Table 6. Decomposition of the household mean work intensity
(percentages)

Country	Overall	Total lack	Lack of hours	Lack of months	Lack of employment
Austria	61.7	38.3	4.9	4.6	28.8
Belgium	58.7	41.3	5.2	3.5	31.9
Cyprus	75.5	24.5	-0.7	4.8	20.3
Czech Republic	70.8	29.2	-3.3	3.4	29.1
Germany	59.3	40.4	5.1	3.1	31.3
Denmark	60.8	39.2	7.0	2.8	27.9
Estonia	72.8	27.2	1.8	4.2	20.5
Spain	65.7	34.2	3.9	4.5	25.5
Finland	62.0	38.0	6.3	8.6	23.1
France	60.6	39.4	6.7	4.8	27.8
Greece	65.7	34.2	-2.6	3.6	33.0
Hungary	60.4	39.6	1.1	4.6	33.6
Ireland	57.7	42.3	8.3	4.8	27.2
Iceland	89.7	10.3	-3.1	6.4	6.7
Italy	61.0	39.0	2.1	2.2	34.7
Lithuania	72.2	27.8	1.3	4.4	21.9
Luxembourg	68.8	31.2	2.4	3.0	25.7
Latvia	73.7	26.1	-0.9	3.5	22.9
Netherlands	53.8	46.2	12.0	5.1	28.7
Norway	68.6	31.4	5.3	3.4	21.2
Poland	60.6	39.4	-0.5	5.0	32.0
Portugal	64.4	35.6	6.0	3.7	25.7
Sweden	71.3	28.7	5.9	5.9	16.1
Slovenia	67.3	32.7	0.3	3.0	29.4
Slovakia	70.4	29.6	-1.4	2.5	28.0
United Kingdom	62.5	37.5	4.8	2.6	30.1
EU (26 countries)	61.9	38.1	4.2	3.7	29.6

Source and notes: Authors' calculations on EU-SILC data, year 2007. Columns 2-4 report the contribution to the overall intensity index (in percentage points). Hours worked are the sum of the variables pl060 (usual hours in the main job) and pl100 (usual hours in the second, third, .., job). Non-employed people have zero hours worked. Month worked are the sum of the variables pl070 (month worked full time) and pl072 (month worked part time). Non-employed people have zero months worked. Hours and month worked are summed by household and divided by the maximum possible intensity, equal to 60 hours per week times 4.2 weeks per month times 12 months per year times the number of working age individuals within the household. Dependent children excluded.

Table 7. Gini index of the household mean work intensity

Country	Hours	Month	Overall
Austria	0.43	0.39	0.44
Belgium	0.44	0.40	0.45
Cyprus	0.36	0.32	0.36
Czech Republic	0.41	0.39	0.42
Germany	0.43	0.40	0.45
Denmark	0.32	0.29	0.34
Estonia	0.35	0.33	0.37
Spain	0.39	0.34	0.39
Finland	0.38	0.32	0.39
France	0.41	0.35	0.42
Greece	0.42	0.37	0.43
Hungary	0.44	0.43	0.47
Ireland	0.47	0.41	0.47
Iceland	0.29	0.25	0.30
Italy	0.40	0.37	0.41
Lithuania	0.38	0.34	0.39
Luxembourg	0.36	0.32	0.37
Latvia	0.40	0.36	0.41
Netherlands	0.34	0.31	0.36
Norway	0.34	0.30	0.35
Poland	0.45	0.42	0.47
Portugal	0.42	0.35	0.44
Sweden	0.34	0.28	0.35
Slovenia	0.35	0.33	0.36
Slovakia	0.39	0.36	0.39
United Kingdom	0.44	0.38	0.44
EU (26 countries)	0.40	0.36	0.41

Source and notes: Authors' calculations on EU-SILC data, year 2007. Hours worked are the sum of the variables pl060 (usual hours in the main job) and pl100 (usual hours in the second, third, .., job). Non-employed people have zero hours worked. Month worked are the sum of the variables pl070 (month worked full time) and pl072 (month worked part time). Non-employed people have zero months worked. Hours and month worked are summed by household and divided by the maximum possible intensity, equal to 60 hours per week times 4.2 weeks per month times 12 months per year times the number of working age individuals within the household. Dependent children excluded.