

Rheinisch-Westfälisches Institut für Wirtschaftsforschung

Studies on "flexicurity" Lot 1: Study on various aspects of labour market performance using micro data from the European Union Statistics on Income and Living Conditions (EU-SILC)

Contract No. VC/2010/0032 Final Report - February 2011

Research Project for the European Commission – DG Employment, social affairs and equal opportunities

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### RWI Report

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## Report

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### **Executive Summary**

This report provides an empirical overview of various aspects of labour market performance using micro data from the European Union Statistics on Income and Living Conditions (EU-SILC). In particular, our analysis is centred around the following five tasks, dealing with different aspects of labour market transitions in Europe:

- Task 1: Labour market transitions;
- Task 2: Taxes/benefits and transitions to employment;
- Task 3: Part-time/full-time work and temporary contracts;
- Task 4: How to assess the quality/value of labour market transitions?;
- Task 5: Pay transitions.
- Task 6: Issues of data quality and comparability in EU-SILC.

In the analysis, all EU Member States as well as Norway will be covered and a specific focus will lie on similarities and differences between Member States. The longitudinal EU-SILC data for the years 2004-2008 form the basis of the empirical analysis. And we restrict the sample to individuals aged between 15 and 65.

In each of the five tasks we proceed in two analytical steps. The first step of the technical analysis contains the descriptive evidence computed from the EU-SILC data base. For the transitions under investigation, we thus present Markov transition matrices for the dataset as a whole, as well as for different worker groups (e.g. according to age or education), countries, and years. Furthermore, we present cross tables and figures that give some insights into differences between demographic groups and countries. For each of the five tasks, the econometric analysis is conducted in a second step. Here, we use different econometric tools, such as wage regressions, logit models, tobit models, multinomial logit models and ordered logit models, in order to establish the statistical relationship between the variables of interest. The explanatory variables consist of individual and household characteristics, such as age or education, country fixed effects and time dummies.

In addition to the analytical tasks in the last task we discuss issues of data quality and comparability in EU-SILC. In Task 6 the experiences gained in the first five tasks are summarized.

In **Task 1**, we analyse transitions between different labour market states, as well as direct job-to-job transitions, in the EU Member States. In order to do so, we use both the monthly (calendar) data, as well as the information provided in the yearly interview.

In order to give an EU-wide overview of labour market dynamics, we first provide a descriptive picture of labour market transitions. The descriptive evidence presented confirms the well-known fact that worker characteristics play an important role in this context: Young workers, having accumulated little (specific) human capital, are more mobile than older workers; women are more likely to transit to and from "inactivity" than men, presumably because they often assume more family responsibilities; higher skills go together with a lower risk of becoming unemployed or inactive, and a higher probability to find a job.

The econometric analysis in this chapter confirms the descriptive evidence, and also allows to analyse the link between labour market transitions and household characteristics, as well as other variables. With respect to household variables, one of our findings is that more small children in the household go together with higher inflows into unemployment and inactivity, which is probably due to the time parents devote to their children. The employment status of the spouse also seems to play an important role. In particular, we find that individuals with an employed partner are more likely to remain employed and less likely to enter unemployment than those with a non-working partner. This could be due to incentives (unemployment may be less attractive if the partner is working away from home) or to selection effects (individuals with a high probability to be employed tending to marry each other). The econometric analysis also shows that an individual's work experience, as well as the degree of urbanization, are strongly correlated with the probability of making certain labour market transitions.

Finally, the results uncovered in the econometric analysis stress both similarities and differences across the European Member States with respect to labour market dynamics. First, the level differences in labour market dynamics allow us to identify different labour market (e.g. "flexicurity"-type) regimes. Second, we find that the link between some characteristics and labour market transitions is the same across countries, while it differs for others. For example, in virtually all countries, highly educated unemployed individuals are more likely to find a job than those with lower educational degrees, while the chances of men and women differ between country groups.

In **Task 2** we investigate characteristics of the European tax-cum-benefits systems, as well as their link with transitions to employment. The characteristics considered are the disincentives established by the systems measured by the marginal effective tax rate (METR); and the insurance they provide, which is measured by the coverage ratio of unemployment benefits (i.e. how many persons, who become unemployed, are supported by unemployment benefits), and the level of income replacement they provide, as indicated by the net replacement rate (NRR).

Our results reveal large cross-country differences between European countries. This is particularly true for the METR on the transition from unemployment to employment but also for the METR on the transition from inactivity to employment, although to a lesser extent. Thus, in line with economic reasoning, the incentive to start working from inactivity is bigger than the incentive to take up a job from unemployment, because persons in inactivity do not suffer a loss of unemployment benefits when taking up a job.

With respect to household types, we find the pattern that, at the median, single households face the lowest METR, married couples a medium burden, while the unmarried couples face the highest disincentive to start a job in Europe, irrespective whether we look at inactive or unemployed persons. As for the number of children, we do not find a clear pattern in Europe. Turning to age groups, we find that the METR of unemployed individuals is rising with age, but not the METR of inactive individuals. Moreover, there are no gender differences to observe in EU-SILC.

The net replacement rates are quite similar for the different household types considered. However, NRRs display a strong dispersion across countries. In addition, the decomposition of the indicator to control for the importance of unemployment benefits in comparison to other

benefits, such as family and housing benefits, reveals that they have a different impact across countries for a person who becomes unemployed.

Our econometric analysis indicates that the METRs computed from the EU-SILC are not significantly related to the probability of transiting from inactivity or unemployment to employment for the EU-SILC data set as a whole. We argue that this is mainly due to the fact that the METRs computed from actual transitions constitute a lower bound for the METRs of a tax-cum-benefit system. Splitting the European countries into country groups, however, we find important cross-national differences. For example, in Continental Europe there exists a significantly negative correlation between the probability of transiting from unemployment to employment and METRs, which is not the case in other countries. A further analysis by gender reveals significant differences between men and women, which vary across country groups.

We also find that while coverage ratios are strongly related to individual and household characteristics, this is not the case for NRRs. Finally, indicators capturing characteristics of national unemployment insurance systems are strongly correlated with the probability of making a transition to employment. This is in particular true for time limits imposed on the duration of the payment of unemployment benefits.

In **Task 3** "non-standard" work arrangements such as part-time and temporary labour contracts that have gained importance during the last decades are investigated. It is analysed which worker groups take up part-time and temporary jobs, and whether these jobs can be a stepping-stone into permanent and full-time employment, respectively.

The share of part-time employed workers highly differs by country. All in all, the share of part-time employment is the highest in the Continental Europe, while the countries belonging to Central and Eastern Europe show the lowest part-time rates. Besides the differences between the countries, large gender differences become obvious. In all Member States, the share of part-time employed is higher among women than among men. Furthermore, there are indicators for the existence of fixed gender roles in regard to family responsibilities. Once being part-time employed, men are more likely to transit to full-time employment than women in all country groups. Looking at the persistency of transitions into full-time employment, men are found to be significantly more likely to stay in full-time employment once having changed from part-time to full-time employment than women.

The analysis of part the joint labour supply of spouses within one household reveals that men increase their working hours in reaction to their wife becoming unemployed. Furthermore, the results suggest that both men and women raise their working hours with increasing working hours of their partner.

In the second part of this task, the features of temporary employment in the European Union are analysed. Again, large differences in the share of temporary workers across the Member States can be observed. Temporary employment is most frequent in Mediterranean countries, while it is least frequent in Central and Eastern Europe. Only a small percentage of workers changes from permanent to temporary employment while changes from temporary to permanent employment are more often. Although younger employees are much more likely to hold a temporary contract compared to older ones, their transition probability into permanent employment is equal or even lower in some country groups. In all countries, low

skilled men are less likely to change to permanent employment than medium skilled men, while this doesn't hold true for women.

The results show that regarding the probability of staying permanently employed, individual characteristics are more relevant for men than for women, while middle-aged and/or high skilled men are most likely to stay permanently employed. For unemployed workers and young labour market entrants, the first job seems to be decisive for the labour market status two to four years later. The results suggest that there is a trap in temporary employment and no port of entry into permanent employment.

The quality of different labour market states and the transitions between these states are investigated in **Task 4**. Indicators for job quality can be working time, security, satisfaction, equality, health, wages, further training etc. Due to data availability, the investigated quality characteristics in this analysis are mainly self-assessed health and income and wages. Besides these measures of the quality of labour market transitions, mobility in the Member States is analysed. The results suggest that the lowest mobility is in Belgium and France while it is the highest in the Netherlands and Sweden. However, when the mobility between different types of employment is also taken into account, mobility in the Netherlands decreases.

The findings regarding health suggest that inactive persons experience the worst health while persons in education are of the best health. Between those workers that participate on the labour market the unemployed state that they are less healthy than employed workers. Full-time temporary employed workers state to be healthier than those in permanent or part-time employment.

To account for individual heterogeneity the changes in self-assessed health are analysed in a second step. The findings suggest that transitions from unemployment or inactivity into employment are correlated with improving health. Full-time workers that change from a temporary into a permanent contract experience increasing health changes. The same is true for temporary workers with transitions from part-time to full-time employment.

Besides the analysis of differences in health, wage and income differentials between the different employment types are analysed. There are substantial differences in income and wages between the sexes, age groups, skill groups and the different Member States. Furthermore, it can be seen that wages and income of temporary employed workers are below those of permanent employed workers. The findings suggest that there are no differences in hourly wages between part-time and full-time workers.

Summed up, the results indicate that workers that change from temporary to permanent employment increase both, their wage rate and their health status. Therefore, permanent employment seems to be of higher job quality than temporary employment. Regarding the quality of full-time and part-time employment no clear pattern can be observed.

In **Task 5**, we analyse income inequality and pay transitions of full-time workers. This analysis supplements the analyses of the previous tasks that investigate mobility between labour market or employment states. By contrast, in this task only mobility in this one employment status is analysed.

There are substantial differences between the different Member States regarding income inequality. There is only low inequality in Denmark, Belgium, Finland and Sweden, whereas inequality is high in Portugal, Latvia, Ireland, Lithuania and the United Kingdom.

To get some impression if the observed income inequality is just a snapshot or if it is persistent, we also calculate income inequality on a four-year basis. In the majority of countries, inequality derived on this average income is lower than on the basis of yearly income which indicates that mobility reduces inequality. However, there are also countries with a different finding, such as Cyprus, Estonia and Portugal. In these countries inequality is even increased by mobility.

In the analysis of pay transitions, the individual's relative position in the wage distribution in year t is compared to the position in year t-1 and year t-2, respectively. The probability to remain in the same income decile is particularly large at the lower and upper tail of the wage distribution while mobility is the highest in the middle of the income distribution. State dependence is smaller for two-year transitions than for one-year transitions and the share of upward transitions increases: workers with upward transitions are more likely to stay in the higher decile.

There are large differences in mobility between countries. The degree of persistence is the highest for Scandinavian countries and Continental countries, while it is substantially lower for CEE countries and Mediterranean countries. The differences between countries become smaller for 2-year transitions.

The probabilities of upward and downward transitions as well as of no transition are estimated using a multinomial logit model. The results suggest that men are more likely to move up the income distribution than women and that older workers are less likely to move up the income distribution. Regarding the skill level, high-skilled workers are least likely to change deciles. Household characteristics, such as the number of small children and elderly people in the household, are negatively correlated with the probability to stay in the same decile. Job changers have a lower persistence than job stayers.

The analysis of 2-year transitions leads to similar results. Furthermore, upward transitions of low skilled workers are more permanent than upward transitions of medium skilled workers. Workers living with a full-time employed partner have more permanent upward and less permanent downward transitions than other workers with a partner. Furthermore, it can be seen that the positive effects of direct job changers in relation to job stayers fades out in the medium run. Workers with a downward transition in the previous year are more likely to move upwards in the next year, while workers with a previous upward transition are more likely to move downwards.

The second step of the econometric analysis aims at investigating the determinants of the distance of pay transitions. Men experience stronger improvements than women while young workers experience the smallest changes when they move upwards. High-skilled workers move less deciles when they move downwards than medium-skilled workers while low-skilled workers display larger downward movements.

In **Task 6** we describe the data preparation process and summarize the data problems and shortcomings of the EU-SILC data that emerged during the data preparations and analyses performed in Tasks 1 to 5. Furthermore, we make suggestions for additional or modified

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variables that could improve the different analyses. Finally, we compare some of our results to the results obtained using EU-LFS.

The EU-SILC data set is a rotational panel of all EU Member States, Norway and Iceland. Due to the large number of countries and the panel structure, it is an important and unique data set. The latest version released this year covers a remarkable number of individuals that are followed over a maximum of four years. Most of the variables included in the longitudinal files are of high quality. However, there are also some variables with a lower quality. These are particularly the reason for job changes and the income variables. Especially, the coverage rate of the different income variables is very low. Therefore, the data are less useful for analysis of household income, poverty etc. Besides these problems in the coverage rate, some important variables are missing in the longitudinal data set. These are for example firm size, job tenure and industry.

The structure of the data and the income variables do not allow to directly assign income to the labour market status of the respective interview. Indeed, income is measured for the last calendar year. However, there is also monthly retrospective information on the labour market status. Based on this information, it is possible to assign income to the different months. However, it is not possible to assign income to every individual. Especially for those who often change their labour market status, it is not possible to assign a reliable income to the different labour market states.

The labour market states derived from the retrospective monthly data differ to some extent to the labour market states derived from the yearly interviews. Furthermore, high transition rates between December and January can be observed. These findings suggest that there is some recall error in the retrospective data.

Compared to the descriptive findings based on the EU-LFS data set, it can be seen that there are only small differences between the two data sets regarding transition rates.

### Résumé

Ce rapport aborde divers aspects de l'évolution du marché du travail, en s'appuyant sur des microdonnées tirées des statistiques de l'Union Européenne sur le revenu et les conditions de vie (EU-SILC). L'analyse traite les six domaines suivants, qui s'intéressent avant tout aux divers aspects des transferts sur le marché du travail en Europe :

1<sup>er</sup> domaine : transferts sur le marché du travail ;

2<sup>e</sup> domaine : impôts, prestations sociales et changements d'activité ;

3<sup>e</sup> domaine : activité à temps partiel / à temps plein et contrats à durée détermi-

née ;

4<sup>e</sup> domaine : comment peut-on évaluer la qualité / la valeur des transferts sur le

marché du travail?;

5<sup>e</sup> domaine : mobilité des salaires ;

6<sup>e</sup> domaine : qualité des données et possibilité de comparer les données de l'EU-

SILC.

L'analyse inclut tous les états membres de l'Union Européenne, ainsi que la Norvège. Elle s'intéresse notamment aux différences et aux points communs entre les états membres. L'analyse empirique s'appuie sur la version longitudinale des données EU-SILC pour les années 2004 à 2008. Par ailleurs, nous limitons la population sondée aux individus âgés de 16 à 65 ans.

Pour chacun des cinq premiers domaines, nous procédons en deux étapes d'analyse. La première étape de l'analyse empirique comprend l'évidence descriptive reposant sur la base de données EU-SILC. Pour chaque transfert sur le marché du travail dans le domaine étudié, nous présentons des matrices de Markov de transfert pour les données dans leur ensemble, ainsi que pour différents groupes de salariés (par ex. selon l'âge ou la formation), pays ou années. En outre, nous proposons des tableaux croisés et des illustrations donnant un aperçu des différences entre les groupes démographiques et les pays. La deuxième étape de l'analyse empirique constitue l'analyse économétrique dans tous les domaines. Celle-ci est réalisée à l'aide de divers modèles économétriques, tels que les régressions de salaire, les modèles Logit, les modèles Tobit, les modèles Logit multinomiaux et les modèles Logit ordonnés, afin de calculer le rapport statistique entre les variables cibles. Les variables explicatives comprennent des caractéristiques individuelles et des caractéristiques liées au foyer, comme l'âge ou la formation, ou encore des effets fixes spécifiques au pays ou à l'époque.

Suite aux cinq domaines thématiques, le dernier domaine aborde la qualité des données et la possibilité de comparer les données EU-SILC. Le sixième domaine expose également un résumé des expériences dans le travail des données des cinq premiers domaines.

Dans le **premier domaine**, sont examinés les passages entre différents états sur le marché de l'emploi, ainsi que les transferts directs d'un emploi à un autre, dans les états membres de l'Union Européenne. Pour ce faire, nous nous appuyons sur les données (calendaires) mensuelles, ainsi que sur les informations fournies par l'enquête annuelle.

Afin d'obtenir une vue d'ensemble de la dynamique du marché de l'emploi dans l'Union Européenne, nous traçons tout d'abord un portrait descriptif des transferts sur le marché du travail. Cette évidence descriptive confirme la présomption selon laquelle les caractéristiques des salariés jouent un rôle important dans ce rapport: les jeunes salariés, ayant établi un capital humain spécifique moins important, sont plus mobiles que les salariés plus âgés. Les femmes passent plus souvent que les hommes en inactivité et en activité, probablement parce qu'elles prennent souvent davantage de responsabilités familiales. Enfin, les salariés ayant un haut niveau de qualification présentent moins de risque de se trouver au chômage ou inactifs et ont davantage de chances de trouver un emploi.

L'analyse économétrique confirme l'évidence descriptive et permet en outre d'analyser le lien entre les transferts sur le marché de l'emploi et les caractéristiques du foyer, ainsi que d'autres variables. Les résultats indiquent que le nombre d'enfants en bas âge dans le foyer va de pair avec davantage de passages au chômage et en inactivité. Ceci s'explique vraisemblablement par le fait que les parents consacrent du temps supplémentaire à leurs enfants. L'état d'activité du conjoint semble également jouer un rôle important. Les résultats indiquent notamment que les personnes dont le partenaire est en activité, demeurent plus souvent en activité et quittent moins souvent leur emploi, que les individus dont le conjoint ne travaille pas. Ceci peut s'expliquer par une plus faible motivation (le chômage est moins attrayant lorsque le partenaire travaille et n'est pas à la maison) ou par la sélection (on épouse généralement une personne ayant un penchant identique pour le travail). L'analyse économétrique fait également ressortir que l'expérience professionnelle individuelle et le degré d'urbanisation sont fortement liés à la probabilité de transferts sur le marché de l'emploi.

Les résultats de l'analyse économétrique révèlent des similitudes et des différences dans la dynamique du marché de l'emploi entre les états membres européens. Les différences de taille dans la dynamique du marché de l'emploi permettent d'identifier diverses formes de marché du travail (par ex. du type « flexicurité »). En outre, on observe que le rapport avec les transferts sur le marché du travail est le même dans tous les pays pour certaines caractéristiques, tandis que pour d'autres, il varie selon les pays. Par exemple, on constate dans presque tous les pays que les chômeurs hautement qualifiés trouvent plus souvent un emploi que ceux peu qualifiés. En revanche, il existe des différences significatives entre les hommes et les femmes, mais celles-ci sont plus ou moins marquées selon les groupes de pays.

Dans le **domaine 2**, nous étudions les caractéristiques des systèmes de fiscalité et de protection sociale des pays européens et leur rapport avec les changements d'activité. Les caractéristiques observées ici sont les mesures de dissuasion générées par les systèmes et mesurées à l'aide du taux marginal effectif d'imposition (TMEI); ainsi que la couverture mesurée d'une part par le degré de couverture de l'assurance chômage (c'est-à-dire combien de personnes sans emploi perçoivent les prestations de chômage) et d'autre part par la hauteur des prestations de chômage, le taux net de remplacement (TNR).

Les résultats font ressortir des différences importantes entre les pays européens. Ceci est vrai notamment pour le rapport entre le TMEI et le passage du chômage en activité, mais aussi pour le rapport entre le TMEI et le passage de l'inactivité en activité, bien que de moindre envergure. Selon l'argumentation économique, la motivation de trouver un emploi lorsque l'on est en inactivité est supérieure à celle de trouver du travail lorsque l'on est au

chômage. Les personnes inactives ne perdent pas le revenu procuré par l'assurance chômage, dès qu'elles retrouvent un emploi.

En ce qui concerne la taille du foyer, on note au niveau de la médiane, que les foyers d'une personne sont confrontés au TMEI le plus bas, tandis que les couples sont soumis à des charges moyennes. Les couples non mariés en Europe sont les moins motivés financièrement pour accepter un emploi. Ce résultat est vrai, que l'on observe ou non des passages d'inactivité ou de chômage en activité. Concernant le nombre d'enfants, une tendance nette est révélée pour toute l'Europe. Le TMEI des chômeurs augmente avec l'âge, mais ce n'est pas le cas de celui des personnes inactives. On n'observe aucune différence entre les deux sexes.

Les taux nets de remplacement sont très similaires pour les différents types de foyers. Les TNR indiquent par ailleurs une forte dispersion dans chacun des pays. Par ailleurs, la décomposition de l'indicateur vérifiant l'importance des allocations de chômage par rapport aux autres prestations, telles que les allocations familiales et l'aide au logement, démontre que les prestations de chômage n'ont pas la même importance, dans les différents pays, pour les personnes se retrouvant au chômage.

L'analyse économétrique indique que les TMEI calculés d'après la base de l'EU-SILC, ne sont pas liés de manière significative à la probabilité de passer de l'inactivité ou du chômage en activité au niveau européen. Nous supposons que cela s'explique par le fait que les TMEI calculés à partir des transferts réels, constituent un seuil inférieur pour les TMEI des systèmes d'imposition et de protection sociale. Pourtant, on observe des différences importantes entre les états membres dans ce contexte. Par exemple, en Europe Continentale, la probabilité des passages de chômage en emploi est fortement liée aux TMEI, ce qui ne pas le cas pour les autres groups de pays. De plus, on trouve des différences considérables entre les sexes, qui varient entre les groupes de pays.

Par ailleurs, on observe que le degré de couverture des prestations de chômage est fortement lié aux caractéristiques individuelles et à celles du foyer, ce qui n'est pas le cas des TNR. Pour finir, on remarque qu'il existe une forte corrélation entre les caractéristiques des systèmes nationaux d'assurance chômage et la probabilité de retrouver une activité. Ceci est vrai notamment quand une limitation de la durée des versements de l'allocation de chômage est appliquée.

Le **domaine 3** s'intéresse aux contrats de travail atypiques, tels que le travail à temps partiel et à durée déterminée, qui a pris de plus en plus d'ampleur au cours des dernières décennies. On observe quels groupes d'actifs travaillent à temps partiel ou à durée déterminée et si ces contrats de travail peuvent servir de tremplin pour accéder à un travail à temps plein et à durée indéterminée.

La part des salariés à temps partiel diffère fortement d'un pays à l'autre. D'une manière générale, la part des salariés à temps partiel est plus élevée en Europe continentale, tandis que les pays d'Europe Centrale et de l'Est indiquent des taux plus bas. Outre les différences entre les pays, on remarque de grosses différences entre les deux sexes. Dans tous les états membres, la part des salariés à temps partiel est plus élevée chez les femmes que chez les hommes. Par ailleurs, des indicateurs révèlent l'existence de rôles figés pour chaque sexe concernant les responsabilités au sein de la famille. Lorsque les hommes travaillent à temps partiel, ils passent davantage à temps plein que les femmes, et ce dans tous

les groupes de pays. Si l'on observe la persistance des transferts en activité à temps plein, les hommes demeurent nettement plus souvent à temps plein que les femmes, après être passés de temps partiel à temps plein.

L'analyse des couples (mariés ou non) révèle que les hommes augmentent leurs heures de travail si leur femme se retrouve au chômage. Par ailleurs, les résultats indiquent qu'aussi bien les hommes que les femmes travaillent plus si leur partenaire travaille plus.

La deuxième partie du domaine 3 analyse les caractéristiques des salariés à durée déterminée dans l'Union Européenne. On observe là encore des différences importantes dans la part des salariés à durée déterminée entre les états membres. Le travail à durée déterminée est très répandu dans les pays méditerranéens, et très peu en Europe Centrale et de l'Est. Seul un faible pourcentage de salariés passe d'un contrat de travail à durée indéterminée à un contrat à durée déterminée, tandis que le passage d'un contrat à durée déterminée à un emploi à durée indéterminée est plus fréquent. Bien que les salariés plus jeunes travaillent plus souvent à durée déterminée que les salariés plus âgés, la probabilité de passer à un contrat à durée indéterminée est identique, voire plus faible dans certains groupes de pays. Dans tous les pays, les hommes peu qualifiés sont moins susceptibles de passer à un contrat à durée indéterminée que les hommes de qualification moyenne. Ceci n'est toutefois pas vrai pour les femmes.

Les résultats indiquent que la probabilité de travailler à durée indéterminée dépend plus fortement des caractéristiques individuelles pour les hommes que pour les femmes. Les hommes d'âge moyen, ainsi que les hommes hautement qualifiés, ont chacun la plus forte probabilité d'être employés à durée indéterminée. Pour les chômeurs et les jeunes salariés primo-entrants sur le marché du travail, le premier emploi semble déterminant pour les deux à quatre prochaines années. Les résultats indiquent qu'après quelques années, les salariés ayant un contrat à durée déterminée ont généralement toujours le même type de contrat, plutôt que d'avoir bénéficié d'un tremplin pour accéder à un contrat à durée indéterminée. Néanmoins, à moyen terme, les chances sur le marché de travail sont plus élevées pour les salariés ayant un contrat à durée déterminée que pour les chômeurs.

La qualité des différents états sur le marché de l'emploi et les passages entre ces états font l'objet du **domaine 4**. Les indicateurs suivants peuvent révéler la qualité de l'emploi : le temps de travail, la sécurité, la satisfaction, l'égalité des chances, l'état de santé, les salaires, la formation continue, etc. En raison de la disponibilité des données, cette analyse étudie quelques caractéristiques de qualité, à savoir l'état de santé auto-évalué, ainsi que les revenus et salaires. Outre ces facteurs de la qualité des transferts sur le marché de l'emploi, la mobilité est examinée au sein des états membres. Les résultats révèlent que l'on observe le plus faible taux de mobilité en Belgique et en France, tandis que les taux les plus élevés sont constatés aux Pays-Bas et en Suède. Si l'on considère non seulement la mobilité entre différents états, mais aussi entre différentes formes d'emploi, la mobilité est plus faible aux Pays-Bas.

Les résultats concernant l'état de santé indiquent que les personnes inactives sont en moins bonne santé, tandis que les personnes en cours de formation présentent le meilleur état de santé. Si l'on compare les salariés et les personnes sans activité, ces dernières s'avèrent être en moins bonne santé. Les salariés bénéficiant d'un contrat à temps plein et à

durée déterminée estiment que leur santé est meilleure que ceux travaillant à durée indéterminée ou à temps partiel.

Afin de tenir compte de l'hétérogénéité de chacun, on analyse, dans une deuxième étape, l'évolution de l'état de santé. Les résultats indiquent que les transferts du chômage ou d'inactivité en activité sont liés à une amélioration de l'état de santé. Les salariés à temps plein passant d'un contrat à durée déterminée à un contrat à durée indéterminée connaissent également une amélioration de leur état de santé. On observe la même chose chez les salariés ayant un contrat à durée déterminée et passant du temps partiel au temps plein.

Outre les différences de l'état de santé, sont également analysés les écarts de salaire et de revenus entre les différentes formes d'activité. Il existe des différences considérables en termes de revenus et de salaires entre les sexes, les groupes d'âges et les groupes de qualification, et celles-ci diffèrent également entre les états membres. On observe par ailleurs que les salaires et les revenus des salariés ayant un contrat à durée déterminée sont inférieurs au niveau des salariés dont le contrat est à durée indéterminée. Les résultats révèlent également qu'il n'existe aucune différence du salaire horaire entre le travail à temps partiel et le travail à temps plein.

L'analyse des variations de salaire et de revenus indique néanmoins que les salariés passant d'une activité à temps plein à une activité à temps partiel, peuvent subir des pertes de revenus, alors que le salaire horaire augmente. Les salariés passant d'un contrat à durée déterminée à un contrat à durée indéterminée connaissent également une hausse de salaire.

Le **domaine 5** examine la disparité du salaire mensuel et les évolutions de revenus des salariés à temps plein. Cette étude complète les analyses des domaines précédents, qui s'intéressaient à la mobilité entre les états d'activité et sur le marché de l'emploi. En revanche, ce domaine examine uniquement la mobilité parmi les salariés à temps plein.

Il existe des différences considérables entre les états membres, en ce qui concerne la disparité des revenus d'activité. Le Danemark, la Belgique, la Finlande et la Suède ne présentent qu'une faible disparité, tandis que celle-ci est élevée au Portugal, en Lettonie, en Irlande, en Lituanie et au Royaume-Uni. Pour constater si la disparité de revenus observée n'est que momentanée ou si elle est continue, on calcule la disparité également sur le revenu moyen de quatre années. Dans la majorité des pays, la disparité de ce revenu moyen est plus faible que si l'on se base sur une seule année, ce qui indique que la mobilité diminue la disparité. Il existe toutefois des pays, comme Chypre, l'Estonie et le Portugal, où la disparité augmente avec la mobilité.

Pour analyser les évolutions de revenus, on compare la position relative dans la répartition des salaires d'un individu, à la position occupée un ou deux ans auparavant. La probabilité de rester dans le même décile de revenu est élevée notamment aux extrémités inférieure et supérieure de la répartition des salaires, tandis que la mobilité est la plus élevée au milieu de la répartition des revenus. La probabilité de rester dans le même décile est plus faible pour les évolutions sur deux ans que pour les évolutions sur un an et la part des évolutions est en hausse : les salariés qui ont gravi les échelons dans la répartition, demeurent toutefois plutôt relégués au second plan.

En ce qui concerne la mobilité, il existe des différences importantes entre les pays. Le degré de persistance est le plus élevé dans les pays scandinaves et d'Europe continentale, et nettement plus faible dans les pays d'Europe centrale, de l'Est et méditerranéens. Si l'on considère les évolutions sur deux ans, les différences entre les pays sont toutefois moindres.

La probabilité d'être promu, d'être dégradé, ou encore de ne subir aucun changement, est évaluée à l'aide d'un modèle Logit multinomial. Les résultats suggèrent que les hommes progressent plus souvent que les femmes dans la répartition des revenus, et que les salariés plus âgés sont moins souvent promus. En ce qui concerne les qualifications, les salariés hautement qualifiés demeurent le plus souvent dans le même décile. Le nombre de jeunes enfants ou de personnes âgées dans le foyer entretient un rapport négatif avec la probabilité de rester dans le même décile. Les salariés qui changent de travail ont une persistance plus faible que ceux qui conservent leur emploi.

On observe des rapports similaires pour les évolutions sur deux ans. Par ailleurs, les évolutions ascendantes des salariés peu qualifiés sont plus durables que celles des salariés moyennement qualifiés. Les salariés vivant avec un partenaire travaillant à temps plein connaissent des évolutions vers le haut plus durables, et leurs évolutions vers le bas sont moins durables que les autres salariés ayant un partenaire. On constate également que les effets positifs du changement d'emploi diminuent à moyen terme. Les salariés ayant descendu les échelons l'année précédente sont plus souvent promus, tandis que ceux ayant été précédemment promus redescendent dans la répartition des revenus.

La deuxième étape de l'analyse économétrique examine les facteurs déterminants de l'ampleur du changement. Les hommes bénéficient d'améliorations plus importantes que les femmes, tandis que les jeunes salariés connaissent les plus petites évolutions lorsqu'ils sont promus. Lorsqu'ils sont dégradés, les salariés hautement qualifiés redescendent de moins de déciles que les salariés moyennement qualifiés, et les salariés peu qualifiés subissent les plus forts déclassements.

Le **domaine 6** décrit le processus de préparation des données et résume les problèmes et les points faibles de la base de données EU-SILC, survenus lors de l'établissement des données et des analyses des domaines 1 à 5. En outre, des variables supplémentaires ou modifiées sont proposées, susceptibles d'améliorer les diverses analyses. Enfin, quelques résultats de la base EU-SILC ont été comparés aux résultats de l'Enquête de l'Union Européenne sur les Forces de travail (EU-LFS).

La base de données EU-SILC est un panel rotatif de tous les états membres de l'Union Européenne, ainsi que la Norvège et l'Islande. En raison du grand nombre de pays et de la structure du panel, il s'agit d'une base de données importante et unique. La version actuelle, publiée en 2010, couvre un nombre considérable d'individus, demeurant dans le panel au maximum quatre ans. La plupart des variables dans les fichiers longitudinaux sont de haute qualité. Certaines variables sont toutefois de moins bonne qualité : notamment le motif d'un changement d'emploi et les variables portant sur les revenus. Pour ces dernières, des informations ne sont pas disponibles pour tous les pays. C'est pourquoi les données permettant d'étudier les revenus des ménages, la pauvreté, etc. ne peuvent actuellement pas être comparées au niveau européen, car elles sont manquantes pour certains pays. En outre, certaines variables importantes manquent dans la base de données longitudinale. C'est le cas par exemple de la taille de l'entreprise, de la durée des contrats de travail et du secteur d'activité.

La structure des données et les variables relatives au revenu ne permettent pas d'attribuer directement le revenu à l'état sur le marché du travail de la personne interrogée. En effet, le revenu de la dernière année calendaire est retenu. Il y a par ailleurs également des informations rétrospectives mensuelles concernant l'état sur le marché de l'emploi. Sur la base de ces informations, il est possible d'attribuer les revenus de chaque mois. Par ailleurs, il est impossible d'attribuer les revenus à chaque état individuel. Notamment pour les personnes changeant souvent d'état sur le marché de l'emploi, il est impossible d'affecter un revenu fiable aux différents états sur le marché du travail.

Les états sur le marché de l'emploi obtenus à partir des données rétrospectives mensuelles divergent dans une certaine mesure des états établis à partir des enquêtes annuelles. En outre, on peut observer des taux d'évolution importants entre décembre et janvier. Ces résultats suggèrent que les données rétrospectives contiennent des erreurs de mémoire.

En comparaison aux résultats descriptifs de la base de données EU-LFS, on peut observer petits différences entre les deux bases de données.

### Zusammenfassung

Dieser Bericht beschäftigt sich mit verschiedenen Aspekten der Arbeitsmarktentwicklung unter Verwendung von Mikrodaten der Statistik der Europäischen Union über Einkommen und Lebensbedingungen (EU-SILC). Die Analyse behandelt die folgenden sechs Themengebiete, die sich vor allem mit verschiedenen Aspekten von Arbeitsmarktübergängen in Europa beschäftigen:

Aufgabenfeld: Arbeitsmarktübergänge;

2. Aufgabenfeld: Steuern, Sozialleistungen und Beschäftigungsübergänge;

3. Aufgabenfeld: Teilzeit-/Vollzeitbeschäftigung und befristete Verträge;

4. Aufgabenfeld: Wie kann die Qualität/ der Wert von Arbeitsmarktübergängen bewer-

tet werden?;

5. Aufgabenfeld: Lohnmobilität;

6. Aufgabenfeld: Datenqualität und Vergleichbarkeit der EU-SILC Daten.

In der Analyse werden alle EU Mitgliedsstaaten sowie Norwegen erfasst. Ein besonderer Fokus liegt dabei auf den Ähnlichkeiten und Unterschieden zwischen den Mitgliedsstaaten. Die Längsschnittversion der EU-SILC Daten für die Jahre 2004-2008 bildet dabei die Grundlage der empirischen Analyse. Darüber hinaus beschränken wir die Stichprobe auf Individuen im Alter von 16 bis 65 Jahre.

In jedem der ersten fünf Themenbereiche verfahren wir in zwei Analyseschritten. Der erste Schritt der empirischen Analyse beinhaltet die deskriptive Evidenz auf Grundlage der EU-SILC Datenbasis. Für die jeweiligen Arbeitsmarktübergänge des Untersuchungsgebietes präsentieren wir Markov-Übergangsmatrizen für den Datensatz als Ganzes, sowie für verschiedene Arbeitnehmergruppen (z.B. nach Alter oder Ausbildung), Länder und Jahre. Des Weiteren zeigen wir Kreuztabellen und Abbildungen, die Einblicke in Unterschiede zwischen demografischen Gruppen und Ländern gewähren. Der zweite Schritt der empirischen Analyse stellt in allen Themengebieten die ökonometrische Analyse dar. Dabei nutzen wir verschiedene ökonometrische Modelle, wie beispielsweise Lohnregressionen, Logit-Modelle, Tobit-Modelle, multinomiale Logit-Modelle und geordnete Logit-Modelle, um die statistische Beziehung zwischen den Zielvariablen zu ermitteln. Die erklärenden Variablen umfassen individuelle Merkmale und Haushaltsmerkmale, wie beispielsweise Alter oder Ausbildung sowie länder- und zeitspezifische fixe Effekte.

Zusätzlich zu den fünf thematischen Aufgabenfeldern werden im letzten Aufgabenfeld die Datenqualität und die Vergleichbarkeit von EU-SILC diskutiert. Im sechsten Feld werden dazu die Erfahrungen in der Datenarbeit der ersten fünf Felder zusammenfassend dargestellt.

Im **ersten Aufgabenfeld** werden Übergänge zwischen verschiedenen Arbeitsmarktzuständen, sowie direkte Job-zu-Job Übergänge in den EU Mitgliederstaaten untersucht. Dafür werden sowohl die monatlichen (Kalender-) Daten als auch die Informationen der jährlichen Befragung genutzt.

Um einen EU-weiten Überblick über die Arbeitsmarktdynamik zu geben, wird zunächst ein deskriptives Bild der Arbeitsmarktübergänge gezeichnet. Diese deskriptive Evidenz bestätigt die Erwartung, dass Arbeitnehmermerkmale eine wichtige Rolle in diesem Zusammenhang spielen: Junge Arbeitnehmer, die wenig (spezifisches) Humankapital aufgebaut haben, sind mobiler als ältere Arbeitnehmer. Frauen wechseln eher in und aus Inaktivität als Männer, vermutlich weil sie häufiger mehr familiäre Verantwortung übernehmen. Letztlich haben hoch Qualifizierte ein geringeres Risiko arbeitslos oder inaktiv zu werden und eine höhere Wahrscheinlichkeit, eine Beschäftigung zu finden.

Die ökonometrische Analyse bestätigt die deskriptive Evidenz und ermöglicht desweiteren, die Verbindung zwischen Arbeitsmarktübergängen und Haushaltscharakteristika sowie weiteren Variablen zu analysieren. Die Ergebnisse zeigen, dass die Zahl kleiner Kinder im Haushalt mit höheren Übergängen in Arbeitslosigkeit und Inaktivität einhergeht. Dies lässt sich vermutlich dadurch erklären, dass Eltern zusätzliche Zeit für ihre Kinder aufbringen. Der Erwerbsstatus des Ehepartners scheint außerdem eine große Rolle zu spielen. Insbesondere zeigen die Ergebnisse, dass Personen, deren Partner erwerbstätig ist, häufiger erwerbstätig bleiben und weniger häufig erwerbslos werden als Individuen mit einem nicht-arbeitenden Partner. Dies könnte aus geringeren Anreizen (Arbeitslosigkeit ist weniger attraktiv, wenn der Partner arbeitet und nicht zu Hause ist) oder Selektion (Personen heiraten eher Personen, die eine ähnliche Arbeitsneigung haben) resultieren. Die ökonometrische Analyse zeigt außerdem, dass die individuelle Berufserfahrung sowie der Grad der Urbanisierung stark mit der Wahrscheinlichkeit von Arbeitsmarktübergängen korrelieren.

Die Ergebnisse der ökonometrischen Analyse decken Ähnlichkeiten und Unterschiede in der Arbeitsmarktdynamik zwischen den Europäischen Mitgliedsstaaten auf. Durch Größenunterschiede in der Arbeitsmarktdynamik können verschiedene Arbeitsmarktformen identifiziert werden (z.B. "Flexicurity"-Typ). Desweiteren zeigt sich, dass für einige Charakteristika die Beziehung zu den Arbeitsmarktübergängen die gleiche zwischen allen Ländern ist, während sie bei anderen Charakteristika zwischen den Ländern variiert. Beispielsweise zeigt sich in nahezu allen Ländern, dass hochqualifizierte Arbeitslose häufiger eine Beschäftigung finden als Arbeitslose, die geringer qualifiziert sind. Im Gegensatz dazu gibt es zwischen Männern und Frauen signifikante Unterschiede, die sich in ihrer Ausprägung aber zwischen den Ländergruppen unterscheiden.

In **Aufgabenfeld 2** untersuchen wir Eigenschaften der europäischen Steuer- und Sozialversicherungssysteme sowie deren Zusammenhang mit Beschäftigungsübergängen. Als Eigenschaften werden hier die durch die Systeme hervorgerufenen Fehlanreize betrachtet, gemessen anhand des effektiven Grenzsteuersatzes (METR); ebenso wie die Absicherung, die zum einen durch den Deckungsgrad des Arbeitslosengeldes (d.h. wie viele arbeitslose Personen werden durch Arbeitslosengeld unterstützt) und zum anderen durch die Höhe der Lohnersatzleistungen, der Nettoersatzrate (NRR), gemessen wird.

Die Ergebnisse machen große länderspezifische Unterschiede innerhalb Europas deutlich. Dies gilt insbesondere für den METR zum Übergang von Arbeitslosigkeit in Beschäftigung, aber auch für den METR zum Übergang von Nichterwerbstätigkeit in Beschäftigung, wenn auch in geringerem Ausmaß. Im Einklang mit ökonomischer Argumentation ist der Anreiz, eine Arbeit aus der Inaktivität heraus aufzunehmen größer als der Anreiz, eine Arbeit aus der Arbeitslosigkeit heraus aufzugreifen. Inaktive Personen verlieren nicht das Einkommen aus Arbeitslosengeld, sobald sie eine Arbeit aufnehmen.

Bezüglich der Haushaltsgröße lässt sich am Median beobachten, dass Einpersonenhaushalte mit dem niedrigsten METR konfrontiert sind, Ehepaare hingegen einer mittleren Belastung. Unverheiratete Paare in Europa haben die geringsten finanziellen Anreize einen Job anzunehmen. Dieses Ergebnis ist unabhängig davon, ob Übergänge aus Inaktivität oder Arbeitslosigkeit betrachtet werden. Hinsichtlich der Zahl der Kinder lässt sich kein klares Muster für Europa erkennen. Der METR der Arbeitslosen steigt mit dem Alter, aber nicht der METR von inaktiven Personen. Geschlechtsspezifische Unterschiede lassen sich nicht beobachten.

Die Nettoersatzraten sind für die verschiedenen Haushaltstypen sehr ähnlich. Die NRRs weisen allerdings eine starke Dispersion über die einzelnen Länder auf. Darüber hinaus zeigt die Zerlegung des Indikators, der die Bedeutung des Arbeitslosengeldes im Vergleich zu anderen Leistungen, wie etwa Kinder- und Wohngeld, überprüft, dass das Arbeitslosengeld in den verschiedenen Ländern von unterschiedlicher Relevanz für Personen ist, die arbeitslos werden.

Die ökonometrische Analyse zeigt, dass die METRs, die anhand von EU-SILC ermittelt wurden, auf europäischer Ebene nicht signifikant mit der Übergangswahrscheinlichkeit von Nichterwerbstätigkeit oder Arbeitslosigkeit in Beschäftigung verbunden sind. Wir vermuten, dass dies vor allem auf der Tatsache beruht, dass die METRs, die aus tatsächlichen Übergängen berechnet sind, eine Untergrenze für die METRs eines Steuer-und Sozialversicherungs-Systems darstellen. Allerdings sind hierbei bedeutende Unterschiede zwischen den verschiedenen Ländergruppen zu beobachten. So besteht in Kontinentaleuropa ein starker Zusammenhang zwischen der Wahrscheinlichkeit, einen Übergang von der Arbeitslosigkeit in ein Beschäftigungsverhältnis zu machen, und der METR, was in den anderen Ländergruppen nicht der Fall ist. Des Weiteren können hierbei erhebliche Unterschiede zwischen Männern und Frauen festgestellt werden, die zwischen den Ländergruppen unterschiedlich groß ausfallen.

Desweiteren lässt sich beobachten, dass der Abdeckungsgrad des Arbeitslosengeldes zwar stark mit individuellen Merkmalen und Haushaltsmerkmalen korreliert ist, die NRR aber nicht. Abschließend lässt sich erkennen, dass Merkmale der nationalen Arbeitslosenversicherungssysteme stark mit der Übergangswahrscheinlichkeit in Beschäftigung korreliert sind. Dies gilt insbesondere für zeitliche Beschränkungen der Dauer der Arbeitslosengeldzahlungen.

In **Aufgabenfeld 3** werden atypische Beschäftigungsverhältnisse wie Teilzeitbeschäftigung und befristete Beschäftigung untersucht, die in den letzten Jahrzehnten zunehmend an Bedeutung gewonnen haben. Es wird untersucht, welche Beschäftigungsgruppen in Teilzeit oder befristet beschäftigt sind und ob diese Beschäftigungsverhältnisse ein Sprungbrett in ein dauerhaftes Vollzeitbeschäftigungsverhältnis sein können.

Der Anteil der Teilzeitbeschäftigten variiert stark zwischen den Ländern. Insgesamt ist der Anteil der Teilzeitbeschäftigten in Kontinentaleuropa am höchsten, während die Länder Mittel- und Osteuropas die niedrigsten Anteile aufweisen. Neben den Unterschieden zwischen den Ländern werden große Unterschiede zwischen den Geschlechtern deutlich. In allen Mitgliedsstaaten ist der Anteil der in Teilzeit Beschäftigten bei Frauen höher als bei Männern. Des Weiteren gibt es Indikatoren für die Existenz von starren Geschlechterrollen hinsichtlich der Verantwortung in der Familie. Wenn Männer einmal in Teilzeit beschäftigt sind, wechseln

sie in allen Ländergruppen eher in Vollzeit als Frauen. Wird die Persistenz der Übergänge in Vollzeitbeschäftigung betrachtet, verbleiben Männer signifikant häufiger in Vollzeit, wenn sie einmal von Teilzeit nach Vollzeit gewechselt sind, als Frauen.

Die Analyse von (Ehe-)Paaren zeigt, dass Männer ihre Arbeitsstunden als Reaktion darauf, dass ihre Frau arbeitslos geworden ist, erhöhen. Weiterhin zeigen die Ergebnisse, dass sowohl Männer als auch Frauen mehr arbeiten, wenn der Partner mehr arbeitet.

Im zweiten Abschnitt von Aufgabenfeld 3 werden die Eigenschaften von befristet Beschäftigten in der Europäischen Union analysiert. Es können auch hier große Unterschiede im Anteil der befristeten Beschäftigung zwischen den Mitgliedsstaaten beobachtet werden. Befristete Beschäftigung ist am häufigsten in Mittelmeerländern und am seltensten in Mittelund Osteuropa zu beobachten. Nur ein geringer Prozentsatz von Arbeitnehmern wechselt von einem unbefristeten in ein befristetes Arbeitsverhältnis, während Wechsel von befristete in unbefristete Beschäftigungsverhältnisse häufiger zu beobachten sind. Obgleich jüngere Arbeitnehmer eher einen befristeten Arbeitsvertrag erhalten als Ältere, ist die Übergangswahrscheinlichkeit in ein unbefristetes Arbeitsverhältnis gleich oder in einigen Ländergruppen sogar geringer. In allen Ländern ist es für gering qualifizierte Männer weniger wahrscheinlich in ein unbefristetes Beschäftigungsverhältnis zu wechseln als für Männer mittlerer Qualifikation. Dies trifft jedoch nicht auf Frauen zu.

Die Ergebnisse zeigen, dass die Wahrscheinlichkeit einer unbefristeten Beschäftigung bei Männern stärker von individuellen Merkmalen abhängt als bei Frauen. Männer mittleren Alters als auch hoch qualifizierte Männer haben die jeweils höchste Wahrscheinlichkeit, unbefristet beschäftigt zu sein. Für Arbeitslose und junge Arbeitnehmer, die gerade erst in den Arbeitsmarkt eintreten, scheint die erste Beschäftigung entscheidend für die nächsten zwei bis vier Jahre zu sein. Die Ergebnisse zeigen, dass befristete Verträge eher dazu führen auch nach wenigen Jahren noch befristet beschäftigt zu sein als dass sie ein Sprungbrett in unbefristete Beschäftigung sind. Allerdings sind die Beschäftigungschancen von befristet Beschäftigten mittelfristig besser als die von Arbeitslosen.

Die Qualität verschiedener Arbeitsmarktzustände und die Übergänge zwischen diesen Zuständen werden in **Aufgabenfeld 4** dargestellt. Indikatoren für Arbeitsplatzqualität können die Folgenden sein: Arbeitszeit, Sicherheit, Zufriedenheit, Chancengleichheit, Gesundheitszustand, Löhne, Weiterbildung etc. Aufgrund der Datenverfügbarkeit sind die untersuchten Qualitätsmerkmale in dieser Analyse der selbsteingeschätzte Gesundheitszustand sowie Einkommen und Löhne. Neben diesen Faktoren zur Qualität der Arbeitsmarktübergänge wird die Mobilität in den Mitgliedsstaaten untersucht. Die Ergebnisse zeigen, dass die geringste Mobilität in Belgien und Frankreich zu beobachten ist, wohingegen die höchste in den Niederlanden und Schweden vorliegt. Wird neben der Mobilität zwischen Zuständen auch die zwischen verschiedenen Formen der Erwerbstätigkeit einbezogen, ist die Mobilität in den Niederlanden geringer.

Die Ergebnisse bezüglich des Gesundheitszustandes zeigen, dass Personen, die inaktiv sind, den schlechtesten Gesundheitszustand aufweisen, während Personen, die sich in ihrer Ausbildung befinden, den besten Gesundheitszustand aufweisen. Zwischen den Arbeitnehmern und Personen, die ohne Beschäftigung sind, zeigen letztere einen schlechteren Gesundheitszustand. Arbeitnehmer, die in einem befristeten Vollzeitbeschäftigungsverhältnis

sind, schätzen ihre Gesundheit besser ein als die, die in einem unbefristeten Beschäftigungsverhältnis oder teilzeitbeschäftigt sind.

Um individuelle Heterogenität zu berücksichtigen, werden in einem zweiten Schritt die Änderungen des Gesundheitszustands analysiert. Die Ergebnisse zeigen, dass Übergänge von Arbeitslosigkeit oder Inaktivität in ein Beschäftigungsverhältnis mit einem besseren Gesundheitszustand korreliert sind. Vollzeitbeschäftigte, die von einem befristeten in einen unbefristeten Vertrag wechseln, erleben ebenfalls eine Verbesserung ihres Gesundheitszustandes. Gleiches ist für Arbeitnehmer in befristeten Beschäftigungsverhältnissen zu beobachten, die von Teilzeit- in Vollzeit übergehen.

Neben den Unterschieden im Gesundheitszustand werden auch Lohn- und Einkommensunterschiede zwischen den verschiedenen Beschäftigungsformen analysiert. Es gibt beträchtliche Unterschiede in Einkommen und Löhnen zwischen den Geschlechtern, Altersgruppen und Qualifikationsgruppen, die sich auch zwischen den Mitgliedsstaaten unterscheiden. Weiterhin zeigt sich, dass Löhne und Einkommen der Arbeitnehmer in befristeten Beschäftigungsverhältnissen unterhalb des Niveaus der Arbeitnehmer in unbefristeten Beschäftigungsverhältnissen sind. Die Ergebnisse zeigen außerdem, dass es keine Unterschiede im Stundenlohn zwischen Teilzeit- und Vollzeitbeschäftigung gibt.

Bei der Analyse von Lohn- und Einkommensänderungen können jedoch für Arbeitnehmer, die von einer Vollzeit- in eine Teilzeitbeschäftigung wechseln, negative Einkommensveränderungen beobachtet werden, während der Stundenlohn ansteigt. Arbeitnehmer, die von einem befristeten in ein unbefristetes Beschäftigungsverhältnis wechseln, erfahren ebenfalls eine Lohnsteigerung.

In **Aufgabenfeld 5** werden Ungleichheit im Monatsentgelt und Gehaltsübergänge von Vollzeitbeschäftigten analysiert. Diese Untersuchung ergänzt die Analysen der vorherigen Aufgabenfelder, die die Mobilität zwischen Arbeitsmarkt- und Beschäftigungszuständen betrachten. Im Gegensatz dazu wird in diesem Aufgabenfeld nur Mobilität innerhalb des Erwerbsstatus Vollzeitbeschäftigung analysiert.

Zwischen den einzelnen Mitgliedstaaten gibt es in Bezug auf Erwerbseinkommensungleichheit erhebliche Unterschiede. Dänemark, Belgien, Finnland und Schweden weisen nur geringe Ungleichheit auf, während die Ungleichheit in Portugal, Lettland, Irland, Litauen und dem Vereinigten Königreich hoch ist. Um festzustellen, ob die beobachtete Einkommensungleichheit nur eine Momentaufnahme oder andauernd ist, wird Ungleichheit auch auf dem mittleren Einkommen aus vier Jahren berechnet. In der Mehrzahl der Länder ist die Ungleichheit dieser Durchschnittseinkommen niedriger als auf Grundlage eines einzelnen Jahres, was darauf hinweist, dass Mobilität Ungleichheit reduziert. Es gibt jedoch auch Länder wie etwa Zypern, Estland und Portugal, in denen Ungleichheit durch Mobilität sogar erhöht wird.

Bei der Analyse der Gehaltsübergänge wird die relative Position in der Lohnverteilung eines Einzelnen mit der Position ein bzw. zwei Jahre zuvor verglichen. Die Wahrscheinlichkeit im gleichen Einkommensdezil zu bleiben ist besonders am unteren und oberen Ende der Lohnverteilung groß, während Mobilität in der Mitte der Einkommensverteilung am größten ist. Die Wahrscheinlichkeit im gleichen Dezil zu bleiben, ist für Zwei-Jahres-Übergänge geringer als für Ein-Jahres-Übergänge und der Anteil der Übergänge nach oben steigt: Arbeitnehmer, die in der Verteilung aufgestiegen sind, bleiben dort eher als Absteiger.

Hinsichtlich der Mobilität gibt es große Unterschiede zwischen den Ländern. Der Grad der Persistenz ist am höchsten für die skandinavischen und kontinentaleuropäischen Länder, und wesentlich niedriger für mittel- und osteuropäische- als auch Mittelmeerländer. Bei Zwei-Jahres-Übergängen sind die Unterschiede zwischen den Ländern jedoch kleiner.

Die Wahrscheinlichkeit eines Auf- oder Abstiegs sowie gar keiner Veränderung werden anhand eines multinomialen Logit-Modells geschätzt. Die Ergebnisse legen nahe, dass Männer sich in der Einkommensverteilung eher verbessern als Frauen, und dass ältere Arbeitnehmer seltener in der Einkommensverteilung aufsteigen. Hinsichtlich der Qualifikationen bleiben hoch qualifizierte Arbeitnehmer am häufigsten im gleichen Dezil. Die Zahl kleiner Kinder oder älterer Menschen im Haushalt ist negativ mit der Wahrscheinlichkeit im gleichen Dezil zu bleiben korreliert. Job-Wechsler haben eine geringere Persistenz als diejenigen, die in ihrem Job bleiben.

Ähnliche Zusammenhänge lassen sich bei Zwei-Jahres-Übergängen beobachten. Zusätzlich sind Übergänge nach oben von gering qualifizierten Arbeitnehmern beständiger als von mittelqualifizierten. Arbeitnehmer, die mit einem vollzeitbeschäftigten Partner zusammenleben, haben permanentere Übergänge nach oben und weniger permanente Übergänge nach unten als andere Arbeitnehmer mit einem Partner. Zudem ist ersichtlich, dass die positiven Effekte der Jobwechsler in der mittleren Frist abnehmen. Arbeitnehmer, die im Vorjahr einen Abstieg erlebten, steigen häufiger auf, während vorherige Aufsteiger eher wieder in der Einkommensverteilung absteigen.

Im zweiten Schritt der ökonometrischen Analyse werden die Determinanten der Größe der Veränderung untersucht. Männer haben stärkere Verbesserungen als Frauen, während junge Arbeitnehmer bei Aufstiegen die kleinsten Sprünge machen. Hoch qualifizierte Arbeitnehmer bewegen sich bei Abstiegen um weniger Dezile als mittel qualifizierte Arbeitnehmer, während gering qualifizierte Arbeitnehmer die größten Abstiege erleiden.

**Aufgabenfeld 6** beschreibt den Aufbereitungsprozess der Daten und fasst Probleme und Schwächen des EU-SILC Datensatzes zusammen, die während der Datenaufbereitung und der Analysen in den Aufgabenfeldern 1 bis 5 aufgetreten sind. Außerdem werden Vorschläge für zusätzliche oder abgeänderte Variablen gemacht, die die verschiedenen Analysen verbessern könnten. Schließlich werden einige Ergebnisse aus EU-SILC mit Ergebnissen aus der Europäischen Arbeitskräfteerhebung (EU-LFS) verglichen.

Der EU-SILC-Datensatz ist ein rotierendes Panel aller EU-Mitgliedstaaten sowie Norwegens und Islands. Aufgrund der großen Anzahl von Ländern und der Panel-Struktur ist es ein wichtiger und einzigartiger Datensatz. Die aktuelle Version, die im Jahr 2010 veröffentlicht wurde, deckt eine bemerkenswerte Anzahl von Individuen ab, die über maximal vier Jahre im Panel bleiben. Die meisten der Variablen in den Längsschnittdateien sind von hoher Qualität. Es gibt jedoch auch einige Variablen von geringerer Qualität. Dies sind vor allem der Grund für einen Jobwechsel und die Einkommensvariablen. Bei den Einkommensvariablen sind nicht für alle Länder Informationen vorhanden. Daher sind die Daten für die Untersuchung von Haushaltseinkommen, Armut usw. im europäischen Vergleich zurzeit nicht für alle Länder möglich. Zusätzlich zu diesen Problemen im Abdeckungsgrad fehlen einige wichtige Variablen im Längsschnittdatensatz. Dies sind zum Beispiel die Unternehmensgröße, die Dauer von Beschäftigungsverhältnissen und der Wirtschaftszweig.

Die Struktur der Daten und der Einkommensvariablen erlauben keine direkte Zuordnung von Einkommen zum Arbeitsmarktstatus des jeweiligen Interviews. Tatsächlich wird das Einkommen des letzten Kalenderjahres gemessen. Es gibt allerdings auch monatlich retrospektive Informationen über den Arbeitsmarktstatus. Auf Grundlage dieser Informationen ist es möglich, Einkommen den einzelnen Monaten zuzuordnen. Allerdings ist es nicht möglich, Einkommen jedem einzelnen Zustand zuzuordnen. Besonders bei denjenigen, die ihren Arbeitsmarktstatus oft ändern, ist es nicht möglich, ein verlässliches Einkommen den verschiedenen Arbeitsmarktzuständen zuzuweisen.

Die Arbeitsmarktzustände, die aus den retrospektiven monatlichen Daten gewonnen werden, unterscheiden sich zu einem gewissen Grad von den Arbeitsmarktzuständen, die aus den jährlichen Befragungen abgeleitet werden. Darüber hinaus können hohe Übergangsraten zwischen Dezember und Januar beobachtet werden. Diese Ergebnisse legen nahe, dass in den retrospektiven Daten Erinnerungsfehler enthalten sind.

Im Vergleich zu den deskriptiven Ergebnissen des EU-LFS-Datensatzes können nur kleine Unterschiede zwischen den beiden Datensätzen bezüglich Übergangsraten beobachtet werden.

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# 1. Introduction

With this study, we, the RWI (Rheinisch-Westfälisches Institut für Wirtschaftsforschung, Essen) submit the Final Report of the "Study on various aspects of labour market performance using micro data from the European Union Statistics on Income and Living Conditions (EU-SILC)" under the contract VC/2010/0032, which was signed by the last contracting party, and thus entered into force, on 11 February 2010. The study aims at fully exploiting the richness of the EU-SILC micro data to examine labour market transitions. The following research topics are investigated in detail:

Task 1: Labour market transitions;

Task 2: Taxes/benefits and transitions to employment;

Task 3: Part-time/full-time work and temporary contracts;

Task 4: How to assess the quality/value of labour market transitions?;

Task 5: Pay transitions;

Task 6: Issues of data quality and comparability in EU-SILC.

In the analysis, all EU Member States as well as Norway are covered and a specific focus will lie on similarities and differences between Member States. The target population consists of individuals aged older than 15 years and younger than 65 which is also investigated at a sufficiently disaggregated level by taking the skill-, gender-, and age-dimension of the research topics into account. Furthermore, we focus on the differences due to household composition.

The longitudinal EU-SILC data for the years 2004-2008 form the basis of the empirical analysis. The last topic of this report discusses issues of data quality and comparability in EU-SILC. In Task 6 the experiences gained in the first five tasks are summarized. In the following, we briefly describe how our analysis proceeds for each of the five tasks.

In the introduction to each task, we discuss the importance of the topic under investigation, as well as the most important academic literature.

The first step of the technical analysis contains the descriptive evidence computed from the EU-SILC data base. For the transitions under investigation, we thus present Markov transition matrices for the dataset as a whole, as well as for different worker groups (e.g. according to age or education), countries, and years. Furthermore, we present cross tables and figures that give some insights into differences between demographic groups and countries.

For each of the five tasks, the econometric analysis is conducted in a second step. Here, we use different econometric tools, such as wage regressions, logit models, tobit models, multinomial logit models and ordered logit models, in order to establish the statistical relationship between the variables of interest. The explanatory variables consist of individual and household characteristics, such as age or education, country fixed effects and time dummies.

For each task, we summarize the most important results in the concluding section of every chapter.

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Finally, the study includes a chapter on the data quality of the EU-SILC data and propositions for an improvement of the data set. Furthermore, the data preparation and especially the calculation of earnings are presented.

# 2. Task 1: Labour Market Transitions

# 2.1 Background and Objectives

Despite the perceived inflexibility of labour markets in many European countries, worker transitions between the different labour market states (employment, unemployment, education/training and inactivity) are a pervasive phenomenon (see Burda and Wyplosz 1994, Contini and Rivelli 1997, Mortensen and Pissarides 1999a). On the one hand, these transitions are important because they allow labour supply to accommodate labour demand in the economy. Therefore, labour market transitions play a crucial role, allowing the labour market to react to the different factors the economy is subject to. The latter include structural change (cf. Bachmann and Burda 2010), variations in business cycle conditions, international competition, and changes in the composition of the workforce, e.g. because of population ageing (cf. Shimer 2001).

Both, the labour demand of firms and the supply of labour by individual workers depend strongly on various individual and household characteristics. First, there is a strong age effect, with young workers, for example, being more mobile than older workers (cf. Neal 1999). Second, the level of education is known to be a determinant of worker flows, with highly educated workers changing jobs less frequently than workers with lower levels of education. Third, women generally display higher rates of mobility (cf. Royalty 1998). For them, family-related factors are generally more important than for men, which means that their inflows into and outflows from "inactivity" (i.e. not being active on the labour market) are higher.

While these transitions play an important and beneficial role for individuals and for the economy as a whole, they also impose costs on firms and workers, for example because of hiring or separation costs. As a consequence, labour market institutions and policies exist that regulate the dynamics of the labour market. These institutions and policies can therefore be expected to play an important role for the patterns of labour market transitions (cf. Mortensen and Pissarides 1999b). This is for example the case for unemployment benefits, employment protection legislation, the importance of trade unions in the economy, the tax system, as well as active labour market policies. These factors all have the potential of affecting, directly or indirectly, the incentives of workers to remain in a specific labour market state or to transit to another one.

A feature of labour market dynamics that plays a particularly important role is the persistence of labour market transitions. This concept describes whether a labour market transition (for example from employment to unemployment) is quickly reversed or whether a worker who has made this transition is likely to remain in the destination state for an extended period of time. In the former case with low persistence, one would expect more transitions within a given time period (e.g. one year) than with high persistence.

Early research on labour market dynamics focussed on the transitions between the states of employment, unemployment and inactivity. More recently, direct job-to-job transitions (i.e. workers changing jobs without an intervening spell of unemployment or inactivity) have received more attention, for three main reasons (cf. e.g. Fallick and Fleischman 2001, Shimer 2005): First, these transitions are important in quantitative terms, especially when compared with the other transitions in the labour market. Second, direct job-to-job flows display a very strong cyclicality and are therefore of paramount importance for the cyclical dynamics of the

labour market. Third, it has been argued that job-to-job flows can act as a substitute for other labour market transitions (e.g. between employment and unemployment) if the latter are strongly regulated (cf. Boeri 1999). For example, if employment protection is strong, one would expect fewer firings and therefore lower inflows from employment to unemployment and vice-versa. In this case, labour market adjustment may instead occur through more direct job-to-job flows.

The aim of Task 1 is to analyse which factors play a role in determining labour market dynamics. In doing so, we will take into account individual and household characteristics, as well as country- and time-specific factors. Furthermore, our analysis takes into account transitions between different labour market states, as well as direct job-to-job transitions. Finally, we also examine cross-country differences in the persistence of labour market transitions. The details of our empirical strategy are described in turn.

# 2.2 Empirical Strategy

The empirical investigation proceeds in three steps, which can be summarized as follows:

- 1. The first step computes descriptive statistics for the different labour market transitions under investigation, as well as for their persistence. The descriptives are calculated based on monthly and yearly data.
- 2. In the second step of the analysis we econometrically investigate the association between labour market transitions and personal characteristics as well as household characteristics. Moreover, differences across countries and over time are analysed. In order to do so, we estimate three specifications of multinomial logit models for the various labour market transitions. The first (baseline) specification contains personal and household characteristics as well as country fixed effects and time dummies. The two extended specifications of the multinomial logit models additionally account for the degree of urbanisation and labour market experience, respectively.
- 3. The third step of the analysis investigates the time-invariant differences between countries, which were identified in the previous step, in more detail.

These three steps are now described in more detail. The descriptive evidence on transition probabilities across labour market states are presented in the form of Markov transition matrices from period t to t+1 for the total population, and for some categorical stratifications (gender, age, education levels) as well as for five country groups. The country groups used read as follows:

- Central and Eastern Europe (CEE): Bulgaria, Estonia, Hungary, Lithuania, Latvia, Slovenia, Czech Republic, Poland, Romania, and Slovak Republic;
- Continental European Countries: Austria, Belgium, France, Germany, the Netherlands and Luxembourg;
- Mediterranean Countries: Cyprus, Greece, Italy, Portugal and Spain;
- Scandinavian Countries: Denmark, Finland, Norway and Sweden;
- The United Kingdom and Ireland.

### Box 2.1

# **The Multinomial Logit Model**

Outcomes which follow no natural order are called nominal. The outcomes in Task 3: Employment, Unemployment and Inactive do not follow a specific order and are therefore nominal outcomes. To model transitions between these outcomes econometrically, we can refer to a so called multinomial logit model (MNLM). Essentially the MNLM estimates a separate binary logit model for each pair of outcome categories, but takes into account the fact that the realizations of the outcomes are interrelated.

Comparing the estimation results from separate regressions of the transitions from employment to unemployment, from employment to employment and from employment to inactive with estimation results from a MNLM, the estimated coefficients are usually (roughly) the same. However, the MNLM is more efficient, even though as it imposes common constraints between the coefficients.

Our three states m are unemployment (U), employment (E) and inactive (I). Given a vector of individual characteristics x, the MNLM can be written as:

$$\ln \Omega_{m|b}(x) = \ln \left\{ \frac{\Pr(y = m \mid x)}{\Pr(y = b \mid x)} \right\} = x\beta_{m|b} \text{ with } m = 1,...,J$$

Where b is the base category or comparison group and  $\ln \Omega_{m|b}(x)$  are the log-odds of being in state m, compared to stage b. For the base outcome compared with itself:

$$\ln \Omega_{b|b}(x) = \ln 1 = 0$$

it must hold, that  $\beta_{b|b} = 0$ . The log-odds of an outcome compared with itself are always zero, the same must hold true for the effects of any independent variable. All other outcomes are calculated relative to this chosen base outcome.

The predicted probabilities which can be derived from the model are:

$$Pr(y = m \mid x) = \frac{\exp(x\beta_{m|b})}{\sum_{j=1}^{J} \exp(x\beta_{j|b})}$$

The choice of the comparison group – the so-called parameterization of the model – does not influence the marginal effects (predicted probabilities) of the model, although the estimated parameters  $x\beta_{m|b}$  change, depending which base outcome is chosen to calculate the log-odds of the model.

In a second step, multinomial logit models will be estimated, with the respective labour market transition(s) as dependent variable(s) (see Box 2.1 for technical details). Based on the monthly data set, we estimate five multinomial logit models for five labour market states of origin:

- 1. Transitions from employment to (i) self-employment, (ii) unemployment, (iii) education and (iv) inactivity. This model also controls for the fact that many workers are employed in two consecutive periods. We thus estimate the joint probabilities of being employed in period t, and of being employed, self-employed, unemployed, in education or inactive in period t+1.
- Transitions from self-employment to employment, unemployment, education and inactivity, which are jointly modelled with the probability of remaining self-employed in two consecutive years. Hence, we estimate the joint probabilities of being self-employed in period t, and of being employed, self-employed, unemployed, in education or inactive in period t+1.

- 3. Transitions from unemployment to employment, self-employment, education and inactivity, which are jointly modelled with the probability of remaining unemployed from one year to the next. This model thus estimates the joint probabilities of being unemployed in period t, and of being employed, self-employed, unemployed, in education or inactive in period t+1.
- 4. Transitions from education to employment, unemployment and inactivity, jointly modelled with the probability of remaining in education from period t to period t+1. We thus estimate the joint probabilities of being in education in period t-1, and of being employed, self-employed, unemployed, in education or inactive in period t+1.
- 5. Transitions from inactivity to employment and unemployment, which are jointly modelled with the probability of being inactive in two consecutive years. Therefore, in this model we estimate the joint probabilities of being inactive in period t, and of being employed, unemployed or inactive in period t+1.

Based on the yearly data set transitions from one job to another can be observed by using the information whether the job has been changed since last year. In order to investigate the determinants of job-to-job transitions, we estimate an additional multinomial logit model for the annual transitions out of employment:

6. Transitions from employment to (i) to a new job, (ii) self-employment, (iii) unemployment, (iv) education and (v) inactivity. This model also controls for the fact that many workers are employed in two consecutive periods. We thus estimate the joint probabilities of being employed in period t, and of being employed in the old job, employed in a new job, self-employed, unemployed, in education or inactive in period t+1.

The information on job changes is only available for respondents of the questionnaire. We therefore have to restrict the analysis to the selected respondents in the Scandinavian countries, Ireland, the Netherlands and Slovenia. In these countries only one person of the household responds to the questionnaire. About 98 per cent of all persons who are employed in t-1 and t respond to that question.

These six models are estimated using personal and household characteristics as explanatory variables. The following explanatory variables are included in the baseline specification:

- A dummy variable for male workers;
- Dummy variables for three age groups (young, middle-aged and older workers);
- Dummy variables for three education groups: workers possessing low completed levels
  of education (ISCED 0-2), medium completed levels of education (ISCED 3-4) and high
  completed levels of education (ISCED 5-6);
- A dummy variable taking on the value one if the person is married and living with his/her partner and zero otherwise;
- A dummy variable taking on the value one if the person is not married and has a partner living in the household and zero otherwise;
- The number of children younger than five years of age in the household;
- The number of children aged between 5 and 14 living in the household;
- The number of elderly (65 years and older) in the household;
- A dummy variable for the presence of a full-time employed spouse in the household;
- A dummy variable for the presence of a part-time employed spouse in the household;
- A dummy variable taking on the value one if the individual is part-time employed;

- Dummy variables for 9 occupational groups: Legislators, senior officials and managers; professionals; technicians and associate professionals; clerks; service workers and shop and market sales workers; skilled agricultural and fishery workers; craft and related trades workers; plant and machine operators and assemblers; elementary occupations;
- Year dummies taking into account time-specific effects (e.g. trends over time) which are common for all workers;
- Country dummies capturing country-specific effects which are constant over time.

We further estimate two additional multinomial logit models, where the baseline specification is extended by the degree of urbanisation and individuals' labour market experience, respectively. Since these variables are not fully covered for all country/year combinations, they are excluded from the baseline regression.

In order to examine whether the associations between the transitions and the variables are homogeneous across the EU-SILC countries, we perform an additional robustness check. In particular, we estimate the multinomial logit models for each country group, separately. This enables us to examine, for example, whether the labour market state of a spouse living in the household has the same implications for labour market transitions in the Mediterranean countries as it does in Central and Eastern Europe.

The third step of the analysis investigates cross-country differences in more detail. In order to do so, we use the country fixed effects obtained in the second step of the analysis. As pointed out above, these fixed effects capture time-invariant differences between countries. We are thus able to identify different types of employment regimes, such as "flexicurity"-type regimes This is particularly interesting when viewed against the background of the current policy debate at the European level, where the concept of flexicurity currently plays an important role (cf. European Council (2007, 2009).

# 2.3 Descriptive Labour Market Transitions in the EU-SILC

In a first step, different states in the labour market are defined. Besides unemployment, education, and inactivity, employment as well as self-employment can be distinguished. There are different variables on the employment status. To observe yearly transitions, the self-defined current economic status can be used. In this case only transitions between the yearly interviews are observed. To get better insights into the short-run dynamics of the labour markets, the monthly transitions from the calendar of activities are used. The labour market history contained in the calendar is retrospective in nature and refers to the calendar year preceding the interview. Therefore, monthly transitions rates are available for the years 2003 to 2007 (see Chapter 7 for a more detailed description of the data). By contrast, yearly transitions rates, which are computed from the current labour market state at the time of the interview are available from 2004 to 2008.

In a second step, descriptive evidence on transition probabilities across labour market states is presented for every country. In order to focus on cross-sectional differences, this is done in the form of Markov transition matrices from year t to t+1 for the total population, and for some categorical stratifications (gender, age, education levels, country). These transition probabilities will be constructed by combining information from the labour force status in a specific year with the situation in the subsequent year. Furthermore, descriptive evidence on monthly transition probabilities is presented and compared to the yearly transitions.

# 2.3.1 Descriptive overview

We start by giving a descriptive overview of the yearly transitions between the five labour market states employment, self-employment, unemployment, education and inactivity.

The transition probabilities between these labour market states are given in Table 2.1 for all countries covered by EU-SILC (except Iceland) for the time period 2004-2008. It becomes apparent that for the total working age population, the probability to remain in the same labour market state is relatively high for employment (98.7 per cent), self-employment (98.6 per cent), and inactivity (98.3 per cent) and less so for unemployment (92.8 per cent). Symmetrically, the transition probabilities from employment to unemployment (0.61 per cent) or inactivity (0.43 per cent) as well as the transition probabilities from inactivity to employment (0.87 per cent) or unemployment (0.36 per cent) are relatively low, while the probability of transiting from unemployment to employment (5.0 per cent) is considerably higher. Finally, for an individual in education, the probability to become employed (1.37 per cent) is almost three times higher than to be in the state of unemployment in the subsequent year (0.52 per cent).

Table 2.1 Monthly Markov transition matrix, total sample and by gender in per cent

in per cent	DESTINATION					
	Employment	Self- employment	Education	Un- employment	Inactivity	
ORIGIN						
All						
Employment	98.705	0.112	0.147	0.611	0.425	
Self-employment	0.603	98.554	0.051	0.256	0.536	
Education	1.374	0.072	97.658	0.521	0.375	
Unemployment	5.022	0.471	0.298	92.834	1.375	
Inactivity	0.873	0.196	0.242	0.358	98.332	
Total	51.969	8.989	10.021	6.968	22.054	
Women						
Employment	98.582	0.080	0.163	0.613	0.562	
Self-employment	0.692	98.150	0.074	0.260	0.826	
Education	1.355	0.066	97.686	0.515	0.378	
Unemployment	4.522	0.301	0.287	93.241	1.649	
Inactivity	0.854	0.164	0.187	0.342	98.452	
Total	47.596	5.823	10.028	7.113	29.440	
Men						
Employment	98.809	0.140	0.133	0.609	0.309	
Self-employment	0.560	98.749	0.040	0.255	0.397	
Education	1.394	0.079	97.629	0.526	0.373	
Unemployment	5.543	0.649	0.309	92.410	1.089	
Inactivity	0.912	0.260	0.351	0.389	98.088	
Total	56.357	12.166	10.015	6.822	14.641	

Source: EU-SILC, own calculations. - Notes: Total refers to the share in the sample population in period t+1.

With respect to yearly transitions (see Table A.2.1 in the appendix) the descriptive findings reveal that about 91.5 per cent of the employed population remain employed in the subsequent year, while 9.5 per cent change to another job. The probabilities that employed work-

ers become unemployed or inactive (2.98 per cent and 3.4 per cent, respectively) are relatively low.

Table 2.1 also presents how transition probabilities vary by gender. The main difference between men and women is that the latter are much more likely to become inactive than men, which might be due to childcare and family responsibilities. This is true for both the transition probability from self-employment to inactivity (0.83 per cent and 0.40 per cent for women and men, respectively) and the transition probability from unemployment to inactivity (1.65 per cent and 1.09 per cent, respectively). Moreover, it becomes apparent that men exhibit slightly higher transition rates from unemployment to employment (5.54 per cent) than women (4.52 per cent). The transition rates into and out of education are quite similar for men and women.

The yearly transition probabilities (Table A.2.1 in the appendix) indicate that men are more likely than women to stay at the same employer (92.24 per cent and 90.56 per cent, respectively) or change to another one (9.65 per cent and 9.47 per cent, respectively). In contrast, employed women have a higher risk to become unemployed or inactive in the subsequent year.

Table 2.2

Monthly Markov transition matrices by skill group
in per cent

n per cent						
	DESTINATION					
	Employment	Self- employment	Education	Un- employment	Inactivity	
ORIGIN						
Low skilled						
Employment	98.093	0.142	0.150	1.015	0.599	
Self-employment	0.534	98.400	0.042	0.292	0.731	
Education	0.836	0.042	98.384	0.378	0.359	
Unemployment	4.489	0.371	0.195	93.387	1.558	
Inactivity	0.561	0.159	0.311	0.356	98.613	
Total	36.947	9.315	11.846	8.825	33.067	
Medium skilled						
Employment	98.759	0.101	0.174	0.570	0.395	
Self-employment	0.592	98.659	0.058	0.247	0.444	
Education	1.676	0.079	97.268	0.599	0.377	
Unemployment	5.123	0.473	0.337	92.807	1.260	
Inactivity	1.017	0.201	0.189	0.362	98.231	
Total	55.361	8.929	9.472	7.001	19.237	
High skilled						
Employment	99.091	0.112	0.092	0.358	0.348	
Self-employment	0.734	98.559	0.044	0.226	0.437	
Education	3.372	0.232	94.540	1.172	0.684	
Unemployment	6.410	0.808	0.455	91.022	1.304	
Inactivity	1.615	0.324	0.148	0.359	97.554	
Total	69.393	9.271	4.136	4.329	12.870	

Source: EU-SILC, own calculations. – Notes: Total refers to the share in the sample population in period t+1.

The comparison of skill groups in Table 2.2 shows that the employment stability increases with the educational level (from 98.09 per cent to 99.09 per cent). Correspondingly, the transition probabilities from employment to unemployment, or from employment to inactivity are

much higher for low-skilled individuals (1.02 per cent and 0.60 per cent, respectively) than for medium-skilled (0.57 per cent and 0.40 per cent, respectively) and high-skilled (0.36 per cent and 0.35 per cent, respectively) individuals. Furthermore, the inflow rates to employment rise with the educational level. In particular, high-skilled individuals are much more likely to change from unemployment to employment (6.41 per cent) than medium-skilled (5.12 per cent) and low-skilled individuals (4.49 per cent). Similar patterns can be observed for transitions from inactivity to employment. Therefore, low education can be seen as a risk factor for both becoming and staying unemployed and inactive, respectively. This provides further empirical support of the current focus of EU employment policies on education and training (cf. e.g. European Commission, 2010).

Regarding yearly transitions (see Table A.2.2 in the appendix) the findings reveal that high-skilled individuals are more likely to remain employed (93.8 per cent) than medium- or low-skilled individuals (91.98 per cent and 87.67 per cent, respectively). The probability for changing jobs does not differ across the three skill groups. Furthermore, the risk to transit from employment to unemployment or inactivity decreases with the individuals' skill level.

Table 2.3 **Monthly Markov transition matrices by age group** in per cent

	DESTINATION				
	Employment	Self- employment	Education	Un- employment	Inactivity
ORIGIN					
Age 15-24					
Employment	97.124	0.120	1.042	1.284	0.429
Self-employment	1.416	96.681	0.773	0.551	0.579
Education	1.398	0.056	97.625	0.547	0.374
Unemployment	6.932	0.259	1.131	90.665	1.012
Inactivity	3.359	0.304	5.530	1.545	89.262
Total	33.714	2.185	50.238	8.252	5.611
Age 25-54					
Employment	98.903	0.146	0.037	0.576	0.338
Self-employment	0.781	98.501	0.026	0.282	0.410
Education	3.836	0.417	92.851	1.655	1.241
Unemployment	5.751	0.642	0.148	91.857	1.603
Inactivity	1.530	0.347	0.080	0.677	97.365
Total	65.599	11.502	1.035	7.102	14.763
Age 55-65					
Employment	97.757	0.158	0.002	0.455	1.628
Self-employment	0.537	97.652	0.002	0.150	1.659
Education	1.109	0.464	91.939	0.630	5.858
Unemployment	1.970	0.334	0.011	93.902	3.784
Inactivity	0.265	0.132	0.007	0.122	99.474
Total	25.081	8.194	0.056	4.391	62.279

Source: EU-SILC, own calculations. - Notes: Total refers to the share in the sample population in period t+1.

The association between the individuals' age and labour market transitions is presented in Table 2.3. It becomes apparent that middle-aged workers exhibit higher employment persistence (98.9 per cent) than young and older workers (97.1 per cent and 97.8 per cent, respec-

tively). Correspondingly, transition rates from employment to education and unemployment are considerably higher for young workers (1.04 per cent and 1.28 per cent) than for middle-aged workers (0.04 per cent and 0.58 per cent, respectively) and older workers (0.002 per cent and 0.46 per cent, respectively). Furthermore, the probability to change from employment to inactivity and from unemployment to inactivity is relatively high for older workers (1.63 per cent and 3.78 per cent, respectively), and much lower for middle-aged workers (0.34 per cent and 1.60 per cent, respectively) and young workers (0.43 per cent and 1.01 per cent, respectively). Finally, the probability to escape from unemployment to employment sharply decreases with age (from 6.93 per cent to 1.97 per cent). These age-specific differences in mobility patterns are due to several factors. On the one hand, older workers tend to have acquired more specific human capital during their labour market career, which increases employment stability. On the other hand, corresponding life-cycle events such as the decisions to acquire more education (young workers) and to retire (older workers) play an important role. Moreover, it is likely that the demand for older workers is low in many EU member states, which puts them into a problematic situation once they become unemployed.

Looking at yearly transitions (see Table A.2.3 in the appendix) shows that the probability to experience job-to-job transitions sharply decreases with age, indicating that young workers are most likely to change jobs. Employed young workers are also more likely to enter unemployment (6.54 per cent) than middle-aged (2.75 per cent) and older workers (2.50 per cent). In contrast to this the likelihood to enter inactivity after employment significantly decreases with the individuals' age.

Transition probabilities broken down by country group are displayed in Table 2.4. The descriptive evidence reveals that the employment security is quite similar across all five country groups. Furthermore, the probability of transiting from employment to unemployment is the highest in the Mediterranean countries (0.83 per cent). The corresponding transition rates are lower for Central and Eastern Europe, Scandinavia and Continental Europe (0.60 per cent, 0.58 per cent, and 0.54 per cent, respectively) and much lower for the UK and Ireland (0.37 per cent). The transition probabilities from unemployment to employment are the highest for the UK and Ireland (9.83 per cent) and Scandinavia (8.60 per cent), followed by Mediterranean countries (5.44 per cent), Central and Eastern Europe (4.38 per cent) and Continental Europe (4.25 per cent). A similar pattern can be observed for the probabilities of transiting from inactivity to employment, where the UK and Ireland as well as the Scandinavian countries feature higher transition rates than the other three country groups. Thus, while Scandinavia is among the country groups with the lowest employment stability, it also has the highest transition rates from inactivity and unemployment to employment. This may be seen as a sign of the "flexicurity" concept operated in these countries, with existing employment being relatively insecure, but (re-)employment probabilities being high.

The descriptive evidence on yearly transition probabilities reveals that the employment security is highest in Continental Europe and the UK and Ireland (93.3 per cent and 92.3 per cent, respectively), followed by Central and Eastern Europe (91.4 per cent), Scandinavia (91.2 per cent) and Mediterranean countries (89.6 per cent) (cf. Table A.2.4). Furthermore, job-to-job transitions are very frequent in the UK and Ireland as well as in Scandinavia, but rare in Continental Europe and CEE countries. Employed workers in Mediterranean countries

Table 2.4 **Markov transition matrices by country groups** in per cent

in per cent	DESTINATION						
	Employment	Self- employment	Education	Un- employment	Inactivity		
ORIGIN							
Continental Europe							
Employment	98.902	0.067	0.102	0.535	0.394		
Self-employment	0.553	98.923	0.029	0.148	0.346		
Education	1.128	0.022	98.247	0.361	0.242		
Unemployment	4.247	0.338	0.192	93.989	1.234		
Inactivity	0.946	0.081	0.439	0.301	98.232		
Total	55.023	5.710	10.418	7.053	21.796		
Scandinavia							
Employment	97.992	0.162	0.707	0.581	0.559		
Self-employment	1.798	97.370	0.168	0.194	0.470		
Education	5.826	0.120	92.087	0.969	0.999		
Unemployment	8.604	0.271	1.734	87.682	1.709		
Inactivity	1.948	0.194	0.685	0.488	96.685		
Total	64.215	6.231	10.096	4.809	14.649		
Mediterranean countries							
Employment	98.474	0.175	0.107	0.833	0.411		
Self-employment	0.585	98.474	0.047	0.292	0.603		
Education	1.074	0.102	97.588	0.695	0.542		
Unemployment	5.440	0.576	0.333	91.967	1.683		
Inactivity	0.691	0.296	0.168	0.555	98.290		
Total	47.073	12.769	9.487	7.745	22.925		
CEE							
Employment	98.837	0.130	0.078	0.597	0.357		
Self-employment	0.651	98.402	0.066	0.286	0.595		
Education	0.857	0.100	98.365	0.436	0.242		
Unemployment	4.381	0.449	0.126	93.926	1.118		
Inactivity	0.570	0.216	0.058	0.246	98.910		
Total	47.342	9.664	11.663	8.353	22.978		
United Kingdom & Ireland							
Employment	98.738	0.056	0.235	0.374	0.597		
Self-employment	0.313	98.827	0.045	0.282	0.532		
Education	2.885	0.067	95.980	0.620	0.448		
Unemployment	9.827	1.019	0.991	86.704	1.459		
Inactivity	1.563	0.214	0.114	0.153	97.955		
Total	60.839	8.292	6.895	2.528	21.446		

Source: EU-SILC, own calculations. – Notes: Total refers to the share in the sample population in period t+1.

and Central and Eastern Europe face the highest risk to become unemployed (4.2 per cent and 3.0 per cent, respectively). The corresponding transition rates are lower for Continental Europe (2.6 per cent), Scandinavia (2.1 per cent) and much lower for the UK and Ireland (1.2 per cent).

# 2.3.2 Yearly vs. monthly data

In the descriptive overview, we have been using data both on a monthly basis, i.e. from the calendar, and on a yearly basis, i.e. from the information obtained at the time of the interview. It is therefore of interest to investigate how these two sources differ with respect to the number of transitions that are recorded. In doing so, we concentrate on one summary statistic of labour market dynamics, employment turnover, which we compute for every country covered by EU-SILC. Employment turnover is defined as the number of individuals transiting into and out of employment from one month to the next (for the monthly data) or from one year to the next (for the yearly data), divided by the average number of employees. Furthermore, we calculate the ratio between employment turnover computed from the monthly data and employment turnover computed from the yearly data.

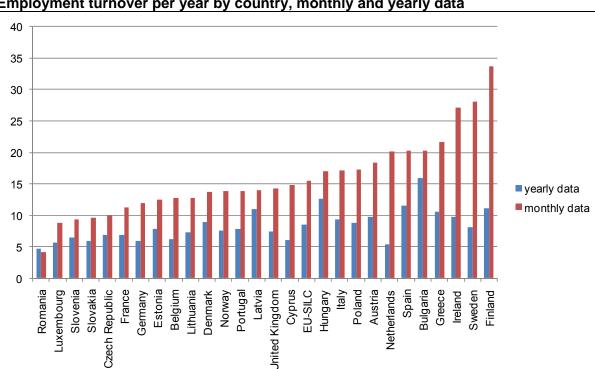


Figure 2.1 **Employment turnover per year by country, monthly and yearly data** 

Source: EU-SILC, own calculations. – Notes: Employment turnover measures inflows into and outflows from unemployment, divided by the employment stock, in per cent. Monthly figures are multiplied by 12 to obtain an approximation of turnover per year.

The average EU-SILC employment turnover amounts to 8.52 per cent in the yearly data, while the monthly data yield 15.54 per cent (cf. Figure 2.1). Therefore, on average the monthly data record 82 per cent more transitions than the yearly data (Figure 2.2). This varies widely between countries, with the maximum being reached by the Netherlands, with 371 per cent. Furthermore, while turnover measured on a monthly basis generally rises with turnover on a yearly basis, this relationship is far from perfect, i.e. one can observe many cases where a country, e.g. Italy, features a higher yearly employment turnover than another country, e.g. Hungary, but a considerably *lower* monthly employment turnover.

There are two potential explanations for these large discrepancies between countries. First, they could be due to inherently different labour market dynamics. For the ratio of the monthly

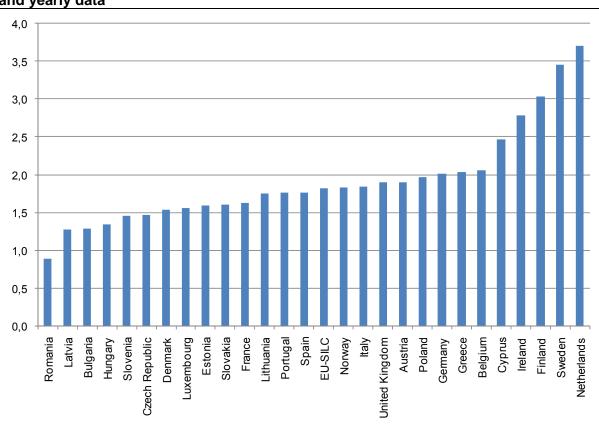


Figure 2.2 Employment turnover per year by country, ratio of turnover measured using monthly and yearly data

Source: EU-SILC, own calculations. – Notes: Employment turnover measures inflows into and outflows from unemployment, divided by the employment stock, in per cent. Monthly figures are multiplied by 12 to obtain an approximation of turnover per year. Ratio obtained dividing monthly through yearly figures.

results to the yearly results, it is mainly the persistence of labour market transitions that matters. To take an example, suppose an individual is employed in March 2006, becomes unemployed in April 2006, and finds a new job such that he is employed again in March 2007. This will be recorded as a transition in the monthly data, but will not be recorded as a transition in the yearly data if he is interviewed in March 2006 and March 2007 and only the labour market status is taken into account. Therefore, low persistence of the intermittent state (unemployment) can lead to a high ratio of monthly to yearly transitions. This might be the reason why some of the "flexicurity" countries, such as Finland and Sweden, score very highly in this respect.

A second reason for this strong variation across countries could be that recall behaviour differs between countries. This could play an important role because the computation of the monthly-to-yearly ratio involves a comparison of data which depends on individuals' recollection of their labour market states in each month of the preceding year (which gives rise to the monthly data) and data which refers to the point in time of the interview. As Jürges (2007) point out, there are systematic differences in recall behaviour between demographic groups. If such systematic differences exist between the countries of the EU-SILC, too, this could explain at least some of the observed variation.

Overall, the comparison of yearly and monthly data makes clear that the choice between yearly and monthly data is far from innocuous and should be made carefully.

# 2.3.3 Comparability to the literature

In order to assess whether the transition probabilities in the EU-SILC data are plausible, we exemplarily compare the transition matrices for Germany, Spain and Estonia with recent studies that investigate the labour market dynamics for these three countries. Based on the monthly EU-SILC data, we find for Germany that about 0.5 per cent of the employed workers become unemployed in the subsequent period (cf. Table 2.5). This is line with the evidence presented by Bachmann and Schaffner (2009). Based on IABS and SOEP data for the time period 1983-2004 the authors show that about 0.6 per cent of the employed workers transit to unemployment. However, for the reverse transition our rates slightly differ from those presented in the literature. That is, while in the EU-SILC data about 3.3 per cent of unemployed individuals become employed in the next period, Bachmann and Schaffner (2009) find a job-finding rate that is twice as large. These differences might be related to the different time periods used for the analysis.

Table 2.5

Markov transition matrix, Germany
In per cent

		DESTINATION					
	Employment	Self- employment	Education	Un- employment	Inactivity		
ORIGIN							
Employment	99.010	0.055	0.122	0.506	0.307		
Self-employment	0.602	98.577	0.052	0.276	0.492		
Education	0.978	0.038	98.427	0.280	0.277		
Unemployment	3.340	0.587	0.295	94.691	1.087		
Inactivity	0.870	0.093	1.039	0.242	97.756		
Total	52.612	5.238	8.206	7.347	26.597		

Source: EU-SILC, own calculations. - Notes: Total refers to the share in the sample population in period t+1.

Table 2.6

Markov transition matrix, Spain
In per cent

		DESTINATION					
	Employment	Self- employment	Education	Un- employment	Inactivity		
ORIGIN							
Employment	88.490	2.170	0.660	5.700	2.980		
Self-employment	9.170	83.780	0.070	2.420	4.560		
Education	15.270	1.070	73.940	5.380	4.350		
Unemployment	33.690	4.020	2.440	41.240	18.610		
Inactivity	7.020	2.100	1.610	6.030	83.240		
Total	52.940	11.040	7.220	8.580	20.220		

Source: EU-SILC, own calculations. - Notes: Total refers to the share in the sample population in period t+1.

For the other two countries, Spain and Estonia, previous studies have used yearly data, rather than monthly data to investigate labour market dynamics. In order to allow a better comparison, we therefore employ the yearly EU-SILC data to calculate transition probabilities. The transition matrix for Spain (cf. Table 2.6) reveals that about 89 per cent of the workers stay in employment, while 5.7 per cent become unemployed in the subsequent year. Regarding transitions out of unemployment, it can be seen that about one third (33.7 per cent)

of the unemployed enter employment, while a slightly higher proportion (41.2 per cent) remains unemployed. These findings are in line with Boeri and Garibaldi (2009), who employ LFS data for the time period 2001 to 2004 to analyze labour market transitions in Europe. In particular, the authors find similar probabilities of staying in employment (91.8 per cent) and unemployment (39.4 per cent) as well as a similar probability of transiting from employment to unemployment (4.02 per cent). However, the likelihood to leave unemployment into employment is found to be much larger than in our EU-SILC data (44.6 per cent).

Table 2.7

Markov transition matrix, Estonia
In per cent

	DESTINATION				
	Employment	Self- employment	Education	Un- employment	Inactivity
ORIGIN					
Employment	92.210	1.080	0.640	2.610	3.470
Self-employment	17.710	77.460	0.120	1.700	3.000
Education	16.630	0.240	76.410	2.870	3.850
Unemployment	37.220	2.870	1.260	47.460	11.190
Inactivity	11.800	0.860	1.090	1.890	84.370
Total	64.860	4.610	9.090	5.190	16.240

Source: EU-SILC, own calculations.

With respect to Estonia, the transition matrix reveals that 92.2 per cent of the workers remain in employment between two consecutive years, while about 2.6 per cent enter unemployment (cf. Table 2.7). Moreover, 47.5 per cent of the workers stay unemployed and 37.2 per cent find a job in the subsequent year. Masso, Eamets and Philips (2007), who investigate labour market transitions in Estonia for the time period from 1997-2000, find quite similar results for the transitions out of employment. However, regarding the transitions out of unemployment their results strongly differ from ours. In particular, compared to the EU-SILC findings a much larger proportion of unemployed individuals remain in unemployment (65.2 per cent). Consequently, the proportion of those unemployed who enter employment in the next year is considerably smaller (27.9 per cent). Again, variation in transition probabilities might emerge due to differences in time horizons that are used for the analysis.

# 2.4 Econometric results

The previous subsection presented descriptive results on transition probabilities between the labour market states employment, self-employment, education, unemployment and inactivity. In the third step of this task, an econometric investigation of transitions between the above-mentioned states will be conducted. This will allow us to more explicitly take into account observable person and household characteristics, as well as unobservable factors that are related to labour market transitions across countries and over time. We first estimate a baseline specification of a multinomial logit model. This baseline specification is estimated separately for the four different states of origin employment, education, unemployment and inactivity. The destination states are employment, self-employment, education, unemployment and inactivity.

# 2.4.1 Econometric results for transitions from employment

The estimation results for the transitions from employment (cf. Table A.2.5 in the appendix) generally confirm the descriptive evidence from Section 2.4.1. In particular, we find that men are significantly more likely to stay in employment or change to self-employment. Women, however, display a higher probability to transit from employment to inactivity, which is probably due to child care and family responsibilities. Furthermore, it can be seen that middle-aged workers exhibit the highest employment persistence. By contrast, young workers are most likely to transit from employment to unemployment, indicating that this age group is much more mobile than medium-aged and older workers, which is in line with the evidence presented in OECD (2009, Chapter 2). Due to retirement patterns, older workers display a considerably high probability to transit into inactivity. The estimation results further reveal that a low level of education is associated with a significantly lower likelihood of staying in employment. Consequently, workers with a low educational level face the highest risk to transit from employment to unemployment. This confirms the well-known fact that low levels of education are an important risk factor in the labour market.

In addition to confirming the descriptive picture, the regressions also reveal that married workers are significantly less likely to become unemployed than singles and individuals who are living with their partner. Compared to singles, employed workers with a partner in the household have a higher probability to become inactive. Furthermore, more small children in the household go together with a decreased employment security and increased transitions to unemployment and inactivity. By contrast, the number of children aged 5-14 in the household is significantly correlated with a lower probability to transit into inactivity. This could be explained by the fact that small children require the time of their parents, who may therefore not be able to work in a job for some time. Older children, however, require less time. The number of elderly in the household is not significantly correlated with the transitions out of employment.

Part-time employment is associated with a reduced likelihood to remain in employment and increased transitions out of employment into self-employment, unemployment and inactivity. Regarding occupations the estimation results reveal that agricultural and fishery workers as well as workers in elementary occupations show the lowest employment security and the highest risk of becoming unemployed.

Apart from personal characteristics and the composition of the household, it might also be interesting to investigate the relationship between the labour market status of an individuals' spouse and labour market transitions. The estimation results reveal that individuals with an employed partner are more likely to stay in employment and less likely to enter unemployment than those with a non-working partner in the household. Here it is likely that selection effects are at play ("assortative mating"), i.e. individuals with a high probability of being employed may tend to marry each other.

While the analysis of country dummies gives some insights into country-specific differences in transition probabilities, we have up to now assumed that personal characteristics have the same impact in all countries. We therefore conduct the analysis separately for the five country groups Continental Europe, Scandinavia, Mediterranean countries, Central and Eastern

<sup>&</sup>lt;sup>1</sup> In this analysis, we distinguish between workers who stay in employment, those who change to self-employment, unemployment and inactivity. Additionally workers can leave into education. However, those numbers are very small and we refrain from presenting the results of transition into education.

Europe, and the UK and Ireland (cf. Tables A.2.6 – A.2.10 in the appendix). Overall, the results are remarkably similar. However, a few noteworthy differences emerge. First, gender is not significantly associated with transitions from employment to unemployment in Continental Europe, CEE countries as well as in the UK and Ireland. In the Scandinavian and Mediterranean countries by contrast, employed men are less likely to become unemployed than women. Second, compared to young and middle-aged workers, older workers in Scandinavia and Mediterranean countries face the highest risk to become unemployed, while in Continental Europe, CEE countries and the UK and Ireland this is the case for middle-aged workers. Third, in all country groups employment security is increasing with education. The only exception is Continental Europe, where the workers' educational level does not significantly affect the transitions out of employment. Fourth, the marital status is not significantly related to transitions into inactivity in Continental Europe and Scandinavia, while the presence of a partner significantly increases the probability of entering inactivity in the other three country groups. Finally, in Scandinavia, CEE countries and the UK and Ireland a higher number of small children in the household goes together with an increased probability of entering inactivity. This is not the case for Continental Europe and Mediterranean countries where no significant relationship between the number of small children and the inflows to inactivity can be found.

When extending the baseline model by an indicator on the degree of urbanization, the regression sample is somewhat reduced since this variable is not fully covered for all country/year combinations. The findings reveal that workers in thinly populated areas are significantly less likely to stay in employment, but more likely to enter self-employment than workers in intermediate or densely populated areas.

Finally, we estimate a third multinomial logit model including the individuals' years of labour market experience. It can be seen that labour market experience goes together with higher employment persistence and a lower probability of entering self-employment and unemployment, respectively. This finding is quite intuitive since workers with more labour market experience have acquired more job-specific human capital, which reduces the risk to leave employment.

Using yearly transitions out of employment, we are able to additionally distinguish between workers who stayed in their initial job and those who changed jobs between two consecutive years (Table A.2.11 in the appendix). The estimation results reveal that men are significantly more likely to change their job. Furthermore, the likelihood to transit from one job to another one significantly decreases with age, implying that young workers are most likely to change jobs. This is in line with Topel and Ward (1992), who show that young workers intensively engage in job-shopping in order to improve job match quality. By contrast, older workers tend to have accumulated more job-specific human capital and are more likely than younger worker to have ended up in a job which suits their skills. Job-to-job transitions also increase with the workers' educational level. The presence of small children is significantly associated with increased job-to-job transitions, while the opposite is the case if children aged 5-14 and elderly are present in the household. With respect to country-specific effects, we find that workers in Norway and the UK are most likely to change jobs, while the opposite is true for workers in Germany and Romania.

The extended specifications of the multinomial logit model show that the degree of urbanization does not significantly affect job-to-job changes. By contrast, labour market experience is associated with reduced transitions from one job to another one.

#### 2.4.2 Econometric results for transitions from education

We now examine more closely transitions from education to other labour market states (cf. Table A.2.12 in the appendix). We find that, compared to women, men are less likely to stay in education and are more likely to become unemployed after education. Middle-aged workers exhibit the lowest probability to stay in education and the highest to transit from education to unemployment. The likelihood to stay in education decreases with the skill level, while the opposite is the case for transitions from education to employment. Surprisingly, high-skilled workers are more likely to become unemployed than low- and medium-skilled individuals. The marital status is associated with a decreased probability to enter employment. Moreover, married workers and those with small children exhibit high probabilities to become inactive. This could be due to voluntary moves to inactivity, for example in order to take care of their children at home. One would expect that individuals with a partner who earns money in job are even more likely to enter inactivity due to family responsibilities. Surprisingly, the employment status of the partner is not significantly correlate with the inflows to inactivity. However, the probability to enter employment significantly increases when a full-time or part-time employed partner is present. The findings moreover suggest that there is no relationship between the number of elderly persons in the household on the one hand and transitions out of education on the other hand.

Additionally including dummy variables that indicate the degree of urbanization reveals that individuals in densely populated areas are less likely to transit from education into unemployment. All other transitions out of education are not correlated with the degree of urbanization.

We further investigate the transitions from education for each country group separately (Tables A.2.13 – A.2.17 in the appendix). The estimation results reveal few differences. First, the probability of entering employment after education is significantly higher for men than for women in Mediterranean and CEE countries, while the opposite is true in Scandinavia. For Continental Europe, the UK and Ireland no gender-specific differences in employment inflows can be observed. Men in CEE countries and the UK and Ireland are more likely to enter unemployment after education than women. Second, small children in the household increase the probability to enter inactivity in Scandinavia and CEE countries. In Mediterranean countries, however, a higher number of small children is associated with decreased transitions to inactivity. In all other country groups the inflows to inactivity are not affected by the presence of small children. Finally, in the UK and Ireland as well as in Continental Europe workers with a full-time or part-time employed partner are more likely to enter employment than workers with a non-active partner. In Mediterranean and CEE countries increased employment inflows can only be observed for workers with a part-time employed spouse. In Scandinavia, however, the presence of a part-time employed partner is significantly negatively correlated with the probability of transiting to employment.

<sup>&</sup>lt;sup>2</sup> In this analysis, we distinguish between workers who stay in education, those who change to employment, unemployment and inactivity. Additionally workers can transit from education to self-employment. However, since those numbers are very small, we refrain from presenting the results of self-employment inflows.

# 2.4.3 Econometric results for transitions from unemployment

In this section we examine the transitions from unemployment to other labour market states (Table A.2.18 in the appendix). We find that men have a higher probability of transiting from unemployment to employment or self-employment than women. Furthermore, they are less likely to stay in unemployment or to become inactive. Similarly to the employment outflows, this could be related to family responsibilities. The estimation results also reveal that the probability of entering employment decreases with age, indicating that young workers are most likely to exit unemployment into employment. Moreover, compared to young and middle-aged workers, older workers are more likely to transit to inactivity. Looking at different levels of education, we find that the probability of remaining unemployed decreases with the workers' educational level. Consequently, the likelihood of transiting from unemployment to employment or self-employment is positively associated with the individuals' education, i.e. high-skilled workers have the highest chance to find a job.

Compared to unemployed individuals who are married or are living with a partner, unemployed singles are more likely to remain unemployed or become inactive. In the presence of a part-time employed partner in the household the likelihood of staying in unemployment is higher and the job-finding probability lower than for unemployed with an unemployed or inactive partner. In the context of transitions from unemployment, the same mechanisms that were discussed for the transitions from employment may be at work: On the one hand, the labour market status of the spouse may have a direct effect on individual labour market transitions, either because of network effects or because it alters incentives; on the other hand, selection effects (assortative mating) may play a role. The number of small children and children aged 5-14 in the household is not related to the escape rate out of unemployment. However, a higher number of children aged 5-14 is associated with decreased transitions into inactivity. The presence of elderly in the household significantly is positively correlated with the probability of remaining unemployed, but negatively with the probability of entering employment.

The additional inclusion of dummy variables indicating the degree of urbanisation reveals that the likelihood to remain in unemployment increases with the area's population density, while the opposite is true for transitions out of unemployment into employment. This implies that workers who live in densely populated areas are least likely to find a job. This is somehow at odds with the literature, which generally finds residents of densely inhabited areas to face better employment opportunities and improved job access, which enhances the job matching process (e.g. Finney and Kohlhase 2008, for the US, Ingham, Ingham and Herbst 2008, for Poland). However, Hofler and Murphy (1994) suggest for the US that individuals in urban areas have higher reservation wages than those in rural areas. This may be an explanation for our finding, as higher reservation wages potentially reduce the transition rate out of unemployment. Moreover, the third specification of the multinomial logit model shows that the years of employment are correlated with the likelihood to transit from unemployment to inactivity, but do not affect the other transitions out of unemployment.

In order to control for country-specific differences in the relationship between personal and household characteristics on the one hand and the transitions out of unemployment on the other hand, we estimate the same model for the five country groups separately (cf. Tables A.2.19 – A.2.23 in the appendix). The differences between country groups can be summarized as follows. First, in Continental Europe, Mediterranean and CEE countries, men are

significantly more likely to enter employment than women, while the opposite can be observed in Scandinavia as well as in the UK and Ireland. Second, in all country groups the job-finding probability is increasing with the workers' educational level. The only exceptions are Mediterranean countries where medium-skilled workers are least likely to enter employment. Third, in Continental Europe and the UK and Ireland individuals with a full-time employed spouse are more likely to enter employment than workers with a non-employed spouse. In the other three country groups, Scandinavia, Mediterranean and CEE countries, the presence of a part-time employed spouse leads to an increased job-finding rate. Finally, the estimation results reveal that a higher number of elderly in the household is associated with a lower job-finding rate for workers in Mediterranean and CEE countries, while it does not affect the transition probabilities of workers in Continental Europe, Scandinavia and the UK and Ireland.

# 2.4.4 Econometric results for transitions from inactivity

Finally, we investigate the transitions from inactivity (cf. Table A.2.24 in the appendix). The estimation results reveal that men who are inactive in one year are more likely than women to be self-employed or unemployed in the following year. With respect to the out of inactivity into employment no gender-specific differences can be observed. Older workers have the lowest probability of transiting to (self-) employment or unemployment and are therefore most likely to remain inactive. Furthermore, we find that higher levels of education go together with a lower probability of remaining inactive and a higher probability of transiting to employment or self-employment.

Inactive individuals who are married are less likely than singles and those living with a partner to become employed or unemployed. However, the employment status of the partner does not significantly affect the transitions out of inactivity. A higher number of elderly in the household goes together with a significantly lower probability of entering employment and a higher probability of remaining inactive. A higher number of children in the household increase the probability to transit from inactivity to education. The presence of children aged 5-14 is, moreover, positively associated with the transition rate into self-employment. A possible explanation could be that self-employment is more flexible to combine work and home care.

Again we extend the baseline specification and additionally include urbanisation dummies. It can be seen, that individuals in densely populated areas are more likely to remain inactive and less likely to enter employment than individuals in intermediate or thinly populated areas. The third specification reveals that labour market experience is associated with decreased transitions from inactivity to unemployment.

Differences in the relationship between personal and household characteristics and transitions out of inactivity are investigated by separate regressions for the country groups (cf. Tables A.2.25 – A.2.29 in the appendix). The similarities between the country groups are remarkable. However, a few noteworthy differences emerge. First, inactive men are more likely to enter employment than women in Scandinavia, Mediterranean and CEE countries. The opposite is true for inactive men in the UK and Ireland. Second, the presence of an employed partner in the household significantly increases the probability of entering employment in Mediterranean countries, Central and Eastern Europe as well as the UK and Ireland. Regarding Scandinavia we find that workers with an employed partner are less likely to enter em-

ployment and more likely to stay in inactivity. For workers in Continental Europe, however, no significant relationship between the partners' employment status and transitions out of inactivity can be observed. Third, the presence of children in the household is associated with a higher probability of transiting to employment in all country groups, except for the UK and Ireland, where it is associated with lower inflows to employment.

# 2.4.5 Cross-country differences: A closer look

We now want to examine the differences between the countries in the EU-SILC in more detail. In order to do so, we use the country fixed effects obtained in the first stage of the econometric analysis. These country fixed effects are the derived marginal effects of the multinomial logits. In all analyses Austria is the reference category. Therefore, the country effects depict the deviation from Austria. The country fixed effects for the transitions from employment, unemployment, and inactivity to other labour market states are depicted in Figures 2.3, 2.4, and 2.5, respectively, using the monthly calendar data. In addition, the fixed effects for transitions from employment to other labour market states obtained from the yearly data are displayed in Figure 2.6, as this allows a distinction between the probability of remaining in the same job from one year to the next, and the probability of making a transition to a new job.

The results reveal important differences between country groups. As becomes apparent from the monthly data, the Scandinavian countries are characterized by low probabilities of remaining in unemployment (UU in Figure 2.4) or in inactivity (II in Figure 2.5). On the other hand, the transition probabilities from unemployment and inactivity to employment are clearly above the EU-SILC average. Furthermore, employment stability (EE in Figure 2.3) is close to the EU-SILC average in most Scandinavian countries. This can be explained by the fact that job security is relatively low, but job-to-job transitions from one year to the next are relatively frequent. This latter feature, as well as the high exit rates out of unemployment and inactivity, explains why these countries are often referred to as "flexicurity countries".

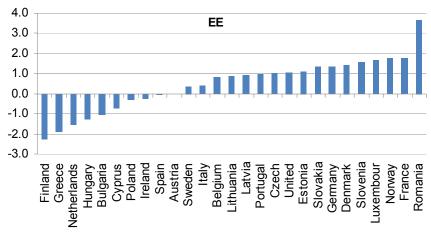
The CEE countries share some of these features. Especially in the Baltic States, job-to-job transitions from one year to the next are relatively high, while job stability is relatively low. However, in the CEE countries, escape rates out of inactivity are rather low, and the probability of remaining in unemployment is relatively high. Therefore, the labour markets of these countries do not appear particularly flexible.

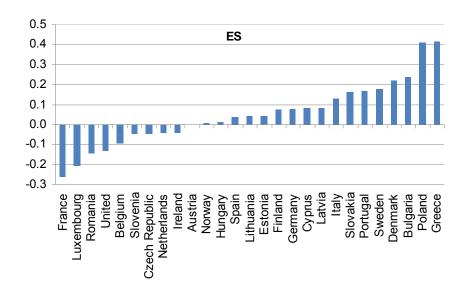
The same is true for the Continental European countries, which also display long unemployment duration (i.e. a high probability of remaining unemployed from one period to the next), and a low probability of transiting from unemployment to employment. Furthermore, employment stability is relatively high. However, as becomes apparent from the yearly data, this is a consequence of high job stability (EE' in Figure 2.6), and a low probability of making a job-to-job transition.

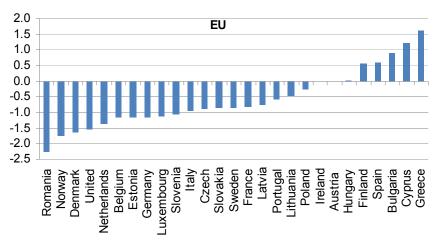
The Mediterranean countries share many of the features of the Continental European countries, such as long unemployment duration and low transition rates from unemployment to employment. In contrast to the Continental European Countries, however, employment stability is relatively low, which is mainly due to relatively low job stability. Furthermore, transitions from employment to unemployment are high, which is particularly the case in Greece and Spain.

Figure 2.3

Country fixed effects of monthly transitions from employment

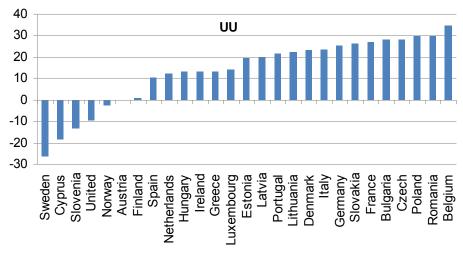






Source: EU-SILC, own calculations. Notes: Deviation from Austria; marginal effects.

Figure 2.4 Country fixed effects of monthly transitions from unemployment



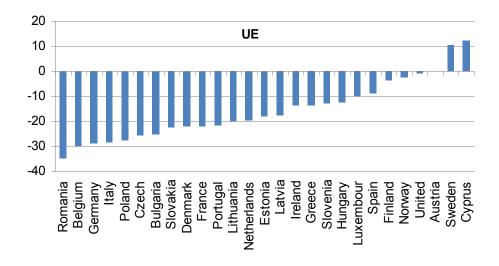
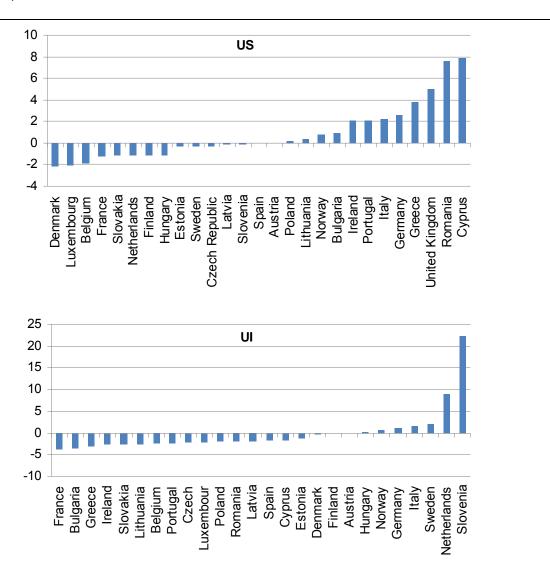
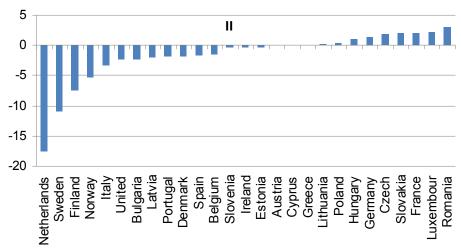


Figure 2.4, continued



Source: EU-SILC, own calculations. Notes: Deviation from Austria; marginal effects.

Figure 2.5
Country fixed effects of monthly transitions from inactivity



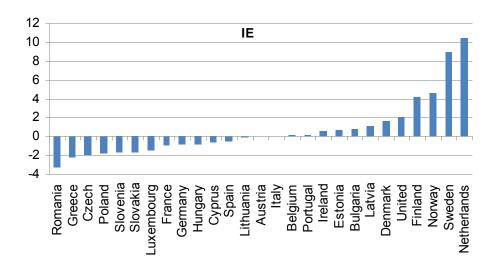
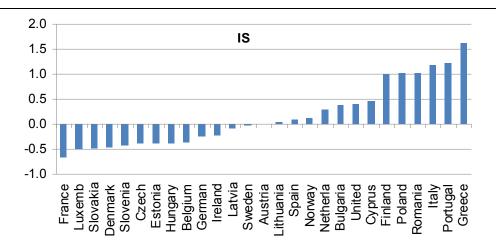
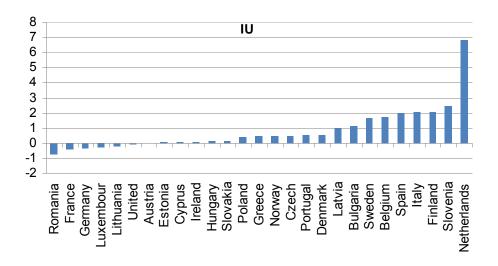


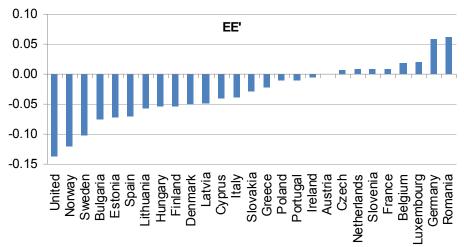
Figure 2.5, continued





Source: EU-SILC, own calculations. Notes: Deviation from Austria; marginal effects..

Figure 2.6 **Country fixed effects of yearly transitions from employment** 



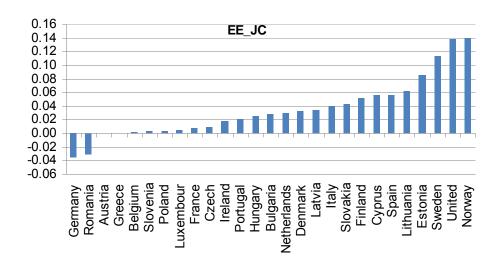
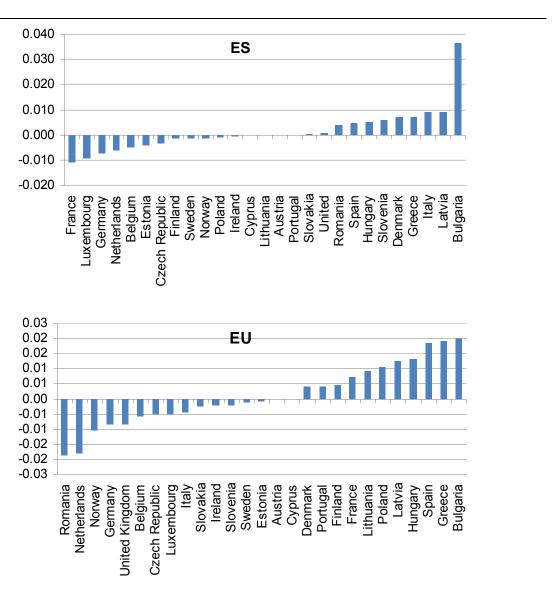


Figure 2.6, continued



Source: EU-SILC, own calculations. Notes: Deviation from Austria; marginal effects.

Finally, the UK displays a very flexible labour market. Job stability is low, but job-to-job transitions are high, which overall leads to high employment stability. Transitions from employment to unemployment are low, transitions from unemployment to employment are high, and unemployment duration is low. Furthermore, while the probability of remaining in inactivity is low, the transition probability from inactivity to employment is high. Therefore, the UK shares virtually all of the features of the typical "flexicurity" countries.

### 2.5 Conclusion

In this chapter, we analyse transitions between different labour market states, as well as direct job-to-job transitions, in the EU Member States. In order to do so, we use both the monthly (calendar) data, as well as the information provided in the yearly interview.

In order to give an EU-wide overview of labour market dynamics, we first provide a descriptive picture of labour market transitions. The descriptive evidence presented confirms the well-known fact that worker characteristics play an important role in this context: Young workers, having accumulated little (specific) human capital, are more mobile than older workers; women are more likely to transit to and from "inactivity" than men, presumably because they often assume more family responsibilities; higher skills go together with a lower risk of becoming unemployed or inactive, and a higher probability to find a job.

The econometric analysis in this chapter confirms the descriptive evidence, and also allows to analyse the link between labour market transitions and household characteristics, as well as other variables. With respect to household variables, one of our findings is that more small children in the household go together with higher inflows into unemployment and inactivity, which is probably due to the time parents devote to their children. The employment status of the spouse also seems to play an important role. In particular, we find that individuals with an employed partner are more likely to remain employed and less likely to enter unemployment than those with a non-working partner. This could be due to incentives (unemployment may be less attractive if the partner is working away from home) or to selection effects (individuals with a high probability to be employed tending to marry each other). The econometric analysis also shows that an individual's work experience, as well as the degree of urbanization, are strongly correlated with the probability of making certain labour market transitions.

Finally, the results uncovered in the econometric analysis stress both similarities and differences across the European Member States with respect to labour market dynamics. First, the level differences in labour market dynamics allow us to identify different labour market (e.g. "flexicurity"-type) regimes. Second, we find that the link between some characteristics and labour market transitions is the same across countries, while it differs for others. For example, in virtually all countries, highly educated unemployed individuals are more likely to find a job than those with lower educational degrees, while the chances of men and women differ between country groups.

# 3. Task 2: Taxes/Benefits and Transitions to Employment

# 3.1 Background and Objectives

Although the decision to supply labour (and how much) may be determined by more than purely pecuniary aspects, the incentive to supply labour is mainly influenced by the relation between (net) wages and the individual reservation wage. This relationship is directly determined by the system of taxes and benefits. While unemployment benefits provide some social insurance against poverty (cf. Gruber 1997), they do not encourage workers to supply labour if the potential wage hardly exceeds the level of benefits (cf. Grubb 1998, Holmlund . In many countries, the decision to supply labour may cause the loss of these benefits earned without working. At the same time, taxes reduce net wages and thus change the decision to supply labour. The main aim of this task is to examine these issues in more detail, and thus to complement the insights provided in Task 1 by additionally investigating the relationship between tax-and-benefit systems and the transitions to employment.

The working hypothesis is that the incentive to take up a job is determined by the change of the budget constraint, which occurs when moving from unemployment or inactivity (nonparticipation) to employment. That is, the effects of tax-and-benefit systems on the transition to employment depend crucially on the effective net gain resulting from starting a job in comparison to the personal reservation wage, which is determined by the benefits income in unemployment or inactivity by large parts. In the low-income brackets, taxation may play only a minor role, and benefits provided to unemployed/inactive workers are decisive. If social benefits provided to unemployed workers and families phase out or are even cancelled completely when taking up a job, this leads to an effective loss of income. As a result, there are strong disincentives to take up a job. Compulsory social security contributions and the taxation of wages, which have to be paid when working, further decrease this incentive. Moreover, marginal taxation often depends on the income of the partner. In a progressive tax system, the resulting marginal tax rates can be very high (e.g. when the partner is in a wellpaying job), so that taxation can cause a substantial additional disincentive to take up a job. Therefore, depending on the structure of the overall system, individuals usually face different types of incentive traps, depending on individual and household characteristics (Carone, Immervoll, Paturot, and Salomäki 2004; Carone, Stovicek, Pierini and Sail 2009). Moreover, as benefits and taxation often depend on household characteristics, and household members in most cases consider the change of the household situation as a whole, it is not only the change of individual income, but of the household net income that may determine extensive (and intensive) labour supply.

The objectives of Task 2 are therefore to compute indicators characterising the incentives coming from the tax-and-benefit system to take up a job. Considering the transition in the opposite direction, we calculate additional indicators which capture the features of the unemployment benefit system for workers who become unemployed. In this context we also provide indicators that capture the fraction of (newly) unemployed individuals who receive unemployment benefits from the system, as well as the size of net income a person receives directly after becoming unemployed, relative to the wage income in his previous job. Thus, we concentrate on transitions to and from full-time employment in the computation of indicators of the tax-and-benefit indicators. In order to understand the effect of the tax-and-benefit

system on the probability to take up a job we finally investigate this relationship econometrically on basis of the indicators deduced before. The details of the empirical strategy are described in the next section.

# 3.2 Empirical Strategy

The analysis in Task 2 is centred around three indicators of tax-and-benefit systems:

- i. The marginal effective tax rate (METR) as a measure of the burden of the tax-andbenefit system that an individual has to bear when moving from unemployment or inactivity to employment, namely withdrawn benefits and tax duties;
- The coverage ratio (CR), which measures the percentage of (newly) unemployed individuals who receive unemployment benefits;
- iii. The net replacement rate (NRR) measuring the level of benefits that an unemployed person receives relative to her/his last labour income.

These indicators give an overview of important characteristics of tax-and-benefit systems in the European Union, quantifying both the effects of the financial requirements of these systems (measured by the METRs), and the insurance that they provide to unemployed individuals (CRs and NRRs).

The empirical strategy proceeds in six steps and can be described as follows.

- 1. In the first step, we generate monthly labour market transitions based on the calendar of activities by comparing the economic status in month t with the situation in the next month t+1 (cf. Task 1).
- 2. In order to compute the characteristic features of the tax-and-benefit systems in the countries covered by EU-SILC, we calculate the monthly incomes and benefits from the corresponding variables within EU-SILC (see also section 7.3).
- 3. In a third step, we calculate three measures that capture important aspects of the taxand-benefit system: the marginal effective tax rate (METR), the coverage ratio (CR), and the net replacement rate (NRR). The results of these measures are presented by household type, country, age and skill group, gender and year.
- 4. We then compare our results for the indicators from our micro-data calculations with those produced by the simulation models from the OECD in the literature (Carone et al. 2004).
- 5. We provide an econometric analysis of the relationship between labour market transitions and the tax-and-benefit system. In doing so, we extend our econometric analysis of Task 1 to indicators of the tax-and-benefit system, in order to investigate how these factors may add additional insight into the labour market decisions considered.
- 6. In the final step of the analysis, we econometrically investigate the importance of features of the tax-and-benefit system, as well as of personal and household characteristics, for the probability of receiving unemployment benefits on the one hand, and for the NRR of those unemployed workers who receive unemployment benefits on the other hand.

The labour market transitions in Step 1 are calculated in the same way as in Task 1 using the monthly calendar of activities. The details of the remaining analytical steps are described in the following subsections.

# 3.2.1 Tax-and-benefit indicators: Concepts and measurement

# Incomes and Benefits

In order to calculate monthly incomes and benefits from the EU-SILC data, we generally follow the procedure described in Task 6. However, in the present analysis, two aspects deserve special attention: first, it is important to be very clear about which benefits enter the calculations; second, we make an important distinction between the personal and the household level.

EU-SILC covers a variety of benefit and income variables reflecting the tax-and-benefit system. In general, in order to calculate total net and gross incomes, the most logical and obvious approach would be to consider all variables reflecting the tax-and-benefit system. This is difficult with the EU-SILC data, because many different aspects of the tax-and-benefit scheme are combined in a limited number of variables and thus may differ between countries. This makes it impossible to control for differences of the tax-and-benefit schemes in every institutional detail of the 26 countries covered. Another problem consists in the aggregation level of income information. Especially information on income taxes and regular taxes on wealth are only available at the household level, while labour participation should be investigated at the personal level. The same is true for family/children and housing allowances. Accordingly, it is difficult to assign these taxes and benefits to individual household members.<sup>3</sup> An illustrative example is the EU-SILC variable "unemployment benefits" which is explained in detail in Chapter 7.

Furthermore, the EU-SILC data do not contain information on whether a person with an observed transition from unemployment to employment loses his/her vocational training allowances or another part of the unemployment benefits or, in contrast, gains additional in-work benefits. Therefore, at this point, it should be mentioned that causal inference does not seem possible without a decomposition of these different elements. Another practical problem is that the more variables we take into account to calculate our net income position, the more observations we lose because of missing values (cf. Task 6).

In our analysis, we used the concept of net income following OECD (2002a) in order to measure an individual's income when employed. Thus, net income is calculated from EU-SILC as the sum of the employee's net income from labour plus the net unemployment benefits, the net family/children allowances and the net housing allowances. In using the net variables, we account for the individual taxes paid on income and social security contributions. In addition to income positions and the individual unemployment benefits, which are collected at the individual level, we include the family/children and housing allowances, which can be regarded as being relevant for decisions concerning labour market transitions. We add the complete monthly family/children allowances and housing allowances at the household level to the net income position, because we assume that an individual receiving benefits is accounting for the complete size of these benefits at the household level when deciding about labour market participation.

<sup>&</sup>lt;sup>3</sup> The same is true for taxes in countries of the EU where married spouses are taxed jointly, therefore it is difficult to isolate individual tax burdens from tax burdens at the household level.

Since the gross employee income within this context is defined without benefits and transfers, we only use the gross cash or near cash income. In calculating net and gross total incomes for the three relevant states "being inactive", "being unemployed", and "being employed" from EU-SILC, we make two important assumptions (cf. also Chapter 7). First, we assume that persons who are inactive or unemployed do not receive employee income. Second, we assume that persons in inactivity and employment receive no unemployment benefits. Note also we equally distribute family/child benefits to all 12 months of the year (cf. Task 6). Therefore, we cannot control neither for the phasing out of benefits nor for in-work benefits potentially in existence in some countries, such as Ireland and the U.K.

As outlined above, the individual decision of labour market participation is also determined by household characteristics. With respect to the effect of the tax-and-benefit system, the marginal tax rate of a married person can be codetermined by the income of the partner. The income of the partner, in turn, is determined by the partner's wage income and/or the partner's unemployment benefits. Hence, we also calculate alternative METRs and NRRs at the household level. In doing so, we again exclude from the analysis all households in which one member displays negative gross employee income, since this is an indication of a data problem, which would bias our results. The labour participation decision now depends on total household employee income accumulated over all household members and the sum of unemployment benefits. Note that the other benefits – family/children and housing allowances – are used at the household level already in the former scenario.<sup>5</sup>

Finally, net household income is calculated using the "OECD-modified scale" in order to obtain net equivalised household income (cf. Hagenaars et al. 1994). This procedure adjusts household income by taking into account the number of persons in the household, and allocating age-dependent persons-specific weights to every individual, with children receiving lower weights than adult persons.

### Tax and Benefit Indicators

In order to analyse the effects of the tax-and-benefit system on labour market participation, we compute three indicators: (i) marginal effective tax rates (METR), (ii) the coverage rate (CR), and (iii) the net replacement rate (NRR). When computing METRs, we follow the concept used by OECD (2002a, b) and Carone et al. (2004, 2009). This indicator measures the incentive effect of the tax-and-benefit system of a country on the labour supply decision of individuals. The METR, in contrast to statutory tax rates, evaluates specifically the effective overall burden of taxation and (withdrawn) benefits when (i) an individual changes his/her status from being unemployed to being employed, (ii) being inactive to being employed, or (iii) when an individual increases working hours or effort when in a job. Given the problems associated with the measurement of hours worked (see, for instance, Meghir and Phillips 2010), our analysis focuses on the first two aspects. The indicator commonly measures the difference between the change in gross employee income and the change in net overall in-

<sup>4</sup> The variable "gross non-cash income" could be added to the gross employee income, but since it shows many missing values for the observations with transitions, we leave this variable out of our calculation. Our results should not be affected by this.

<sup>&</sup>lt;sup>5</sup> Note that it does not matter whether we calculate the household level-indicators on the basis of actual household income or on the basis of a household's equivalence income: since the NRR is a ratio, using equivalence numbers in numerator and denominator the equivalised household size cancels out.

<sup>&</sup>lt;sup>6</sup> Note that the marginal effective tax rate used here is a different concept than the one of the effective marginal, respectively average tax rate (EMTR respectively EATR), introduced by Auerbach (1979), King and Fullerton (1984), Devereux and Griffith (1998a,b), and others.

come divided by the change in gross employee income (Carone et al. 2004), that is, the effective burden on the gross income gain due to changes in taxation and benefits, caused by the change of labour supply considered:

$$METR = 1 - \frac{\Delta y_{net}}{\Delta y_{gross}} = \frac{\Delta y_{gross} - \Delta y_{net}}{\Delta y_{gross}}$$

with

$$\Delta y_{gross} = y_{gross, t+1} - y_{gross, t}$$

$$\Delta y_{net} = y_{net, t+1} - y_{net, t}$$

$$\Delta y_{net} = (y_{gross, t+1} - \tau_{t+1} + b_{t+1}) - (y_{gross, t} - \tau_t + b_t)$$

where period t represents the situation before and period t+1 the situation after the considered change of labour market status;  $\tau$  represents taxes and b the amount of received benefits. The numerator represents the sum of additional tax payments and withdrawn benefits, that is, the loss of gross income due to the change of the labour market status, and the denominator the change of gross income due to change of labour market state. Gross income represents the income without state intervention, that is, without taxes and benefits, while net income refers to the income after taxation and benefits allocation. High METRs can thus be interpreted as an indicator for an "incentive trap", because state intervention involves a high loss of net income due to taxes and a loss of benefits, when the labour market state is changed: an increase along the intensive margin (if in work), i.e. an increase in hours worked, or starting work (extensive margin if out of work) corresponds with only a small gain or even loss of net income. That is, there exist strong disincentives to work, respectively to increase working hours or effort.<sup>7</sup>

High unemployment benefits and additional assistance such as housing subsidies result in a high METR and small incentives to start a job, especially for low-skilled/low-wage workers, if starting a job would cause a loss of these benefits while earning only a low net wage. Therefore, the selection of considered income and benefits variables in order to determine METRs within EU-SILC is crucial for our results.

With respect to the indicators we calculate here, it should be born in mind that our estimates of both METRs and NRRs may be slightly biased downwards. For METRs, for example, in our computation, workers do not lose their family and housing benefits if they move from unemployment/inactivity to employment from one month to the next during one calendar year. If there are workers who lose these benefits when taking up a job, due to our construction of income positions, this will not be captured by our analysis.

The METRs are calculated for all persons who display a transition from inactivity or unemployment to employment, and a non-negative gross employee income as well as unemployment benefits (in case of a transition from unemployment).

In order to evaluate the relation between the unemployment benefit system and individual work incentives, we compute coverage ratios and net replacement rates. In this context, three features are of paramount importance:

<sup>&</sup>lt;sup>7</sup> Another label for the same idea, used in OECD (2002a), is "Average Effective Tax Rate" (AETR). It is important to emphasise that especially highly educated male workers may respond to changes of the tax-and-benefit system by adjusting the amount of effort they put into their work, without changing the number of hours worked (Meghir and Phillips 2010).

- 1. The entitlement to unemployment benefits, i.e. the question who is eligible for receiving unemployment benefits;
- 2. the take-up ratio of unemployment benefits, i.e. the question which share of those entitled to unemployment benefits actually claims them; and
- 3. the level of unemployment benefits relative to the (potential) wage.

It is important to note that the first issue, the entitlement to unemployment benefits, includes features such as the duration of unemployment benefits and their conditionality (e.g. requirements with respect to active job search).

In the EU-SILC data, we observe the level of individual unemployment benefits. In order to relate the data to the three issues mentioned above, we construct two indicators: the CR and the NRR. The CR is defined as follows:

$$CR_t = \frac{\text{number of (new) unemployment benefit receipients in } t}{\text{number of (newly) unemployed persons in } t}$$

We thus compute the share of benefit recipients in the number of unemployed persons. We do so both for all unemployed person, i.e. the stock of the unemployed, and for the newly unemployed persons. Newly unemployed persons in this case are defined as those who have made a transition from employment to unemployment from month t to month t+1. Unemployment benefit recipients are those who receive a strictly positive amount of unemployment benefits. Given that the claim to unemployment benefits is only temporary, the CR referring the flow is typically higher than the ratio referring the stock of unemployed.

Note that the CR combines the first two features of unemployment benefit systems, the entitlement to and the take-up ratio of unemployment benefits. The non take-up ratio may at least run up to 20 per cent and can be as high as more than 60 per cent as shown, for instance, for Germany (van Oorschot 1994; Riphahn 2001; Kayser and Frick 2000). As in the model of Anderson and Meyer (1997) this decision depends on the country-specific cost of applying for income support, the amount and the duration of the expected benefits, and on the subjectively perceived stigma of claiming benefits.

The NRR is defined as follows:

$$NRR_{t+1} = \frac{\sum (unemployment\ benefits_{t+1} + allowances_{t+1})}{\sum net\ income_t}$$

The NRR thus measures the ratio between the income after becoming unemployed and the income during the preceding employment period, that is, the fraction of the income earned at the job that remains to the unemployed (right) after becoming unemployed.

In addition, we use the following alternative definition of the NRR:

$$NRR2_{t+1} = \frac{\sum unemployment\ benefits_{t+1}}{\sum net\ employee\ income_t}$$

NRR2 compares the size of the unemployment benefits in period t+1 with the net employee income in period t, i.e. just before a worker becomes unemployed. A comparison of the two alternative NRRs provides us with the information about the impact of the other benefits beyond the unemployment benefits. By construction, the NRR takes into account those persons who were employed in month t and unemployed in month t+1. Consequently, it is only de-

fined for persons who make a transition from employment to unemployment from one month to the next.

We exclude persons at age 55 or older for our calculations of the NRR, since the unemployment benefits in EU-SILC include payments because of early retirement schemes and redundancy compensations that would distort the results otherwise.

In contrast to the commonly used definition of the NRR within the labour market literature, we include in our first definition of the NRR explicitly other allowances which are independent of the labour market status. The reason for this is that this allows for a complete influence of the tax-and-benefit system and income situation for the household.

Moreover, in order to find out which weight the unemployment benefits have for the size of the NRR, we additionally deduce an alternative, the widely used definition, NRR 2 where we solely focus on the unemployment benefits and the net employee income. If the results of this alternative indicator are roughly equal to the previous NRRs, this suggests that the NRR is mainly driven by the unemployment benefits and that the other benefits are more or less unconditional from unemployment in practice. However, it should be born in mind that the data set does not allow us to observe variations in family and housing allowances within one calendar year. Therefore, this comparison should be made with some care.

In the case of the NRR, we exclude persons who receive negative net employee income in one of the two transition months, receive no or a negative total income in the month of unemployment, or receive no unemployment benefits at all. Otherwise, the NRR results would have been biased by all the persons who lost their job without having a claim to unemployment benefits or, though being entitled to unemployment benefits, did not claim them. The number of persons who do not receive unemployment benefits is captured by the CR. Thus, while the CR makes a distinction between unemployed workers who do not receive unemployment benefits and unemployed workers who do so, the NRR is only computed for the latter group, i.e. those workers who receive unemployment benefits.

Unfortunately, we were forced to exclude twelve countries in our calculations of the METRs and NRRs (Cyprus, Denmark, Finland, Germany, Hungary, Iceland, Ireland, Lithuania, the Netherlands, Norway, Slovakia, the UK) because there are no or too less observations covering all relevant variables in EU-SILC, so that we could not draw country-specific conclusions (cf. Chapter 7). For the estimation of the CR, a wider set of countries could be analysed, however.

## Household typology

In order to control for different socio-economic characteristics, we distinguish between nine household types in both the descriptive and the econometric analysis:

- 1. "single, no children",
- 2. "single, 1 child",
- 3. "single, 2 or more children",
- 4. "living with partner, unmarried, no children",
- 5. "living with partner, unmarried, 1 child",
- 6. "living with partner, unmarried, 2 or more children",
- 7. "living with partner, married, no children",
- 8. "living with partner, married, 1 child",

#### 9. "living with partner, married, 2 or more children".

This approach, first of all, takes into account whether an individual is married, in order to control for the fact that in Germany and Luxembourg married spouses are taxed jointly. Because given the same gross income, a married partner earns a higher net income due to a reduced rate within the income tax. But the income tax liability often depends on the other household members' characteristics, too, if the national tax system does not apply joint taxation of married. Furthermore, the chosen household types control for differences in the size of child benefits and housing benefits by distinguishing couples or singles without, with one, or with two and more children. As Carone et al. (2004: 13) state, "one spouse's earnings may reduce the other spouse's unemployment benefits." In France, additionally the number of children reduce the marginal tax rate, and in other countries, in turn, alimony payments for children (and/or ex-partners) are deductable, too, for instance in Austria and Germany. Moreover, there often exist tax exemptions for dependent children. Our classification also controls for potentially different incentives produced by the tax-and-benefit system by distinguishing between singles and individuals living with a partner. As, for instance, Meghir and Phillips (2010) emphasise, single parents with young children are particularly affected by taxes and benefits.

Our choice of household types is similar but not equal to Carone et al. (2004). The reason is that Carone et al. (2004) do not cover all possible household types, but concentrate on a few selected household types, as is common in simulation studies. For instance, they do not provide results for households with one or with three or more children, but only for households with two children. The EU-SILC data set, however, allows covering more possible types and we analyse all of them in order to obtain the broadest possible picture. In order to compare our results with the results in the literature, the OECD simulation results of Carone et al. (2004) or the EUROMOD results, for instance, by Immervoll (2004), we also conduct the analysis for the corresponding household types (see 3.2.2 and 3.6).

The literature suggests that the sensitivity of the extensive labour market decision to changes of taxes and benefits is decreasing with the level of education, and is lower for women than for men (Meghir and Phillips 2010). Thus, there is evidence that there are differences in the effect of the tax-and-benefit system between men and women, and between different skill groups, especially with respect to the decision whether to work at all. Hence, we also report results for our indicators separately for these two characteristics. To control for education, we distinguish the three skill groups "low skill", "medium skill", and "high skill", which corresponds to "(pre-) primary and lower secondary education", "(upper) secondary and post-secondary education", and "tertiary education".

#### 3.2.2 Micro data-based vs. simulation-based analyses: theoretical considerations

The most important difference of micro-data-based analyses to simulations is that micro data such as EU-SILC comprise actual realisations of incomes, taxes and benefits as well as actually undertaken transitions. Therefore, results computed from such data sets reflect real-life situations and choices. This is an important advantage compared to simulation models, because actual realisations of e.g. benefit payments often deviate from the legal entitlements. As EU-SILC is a panel data set where all individuals are surveyed for a maximum of four consecutive years, these data are particularly well suited for our purpose. If an individual makes a labour market transition, this will be documented with the corresponding data on

gross and net income, benefits and taxes. Thus, the advantage of micro data is that we have a mass of information about true values of existing households and individuals that can be analysed – and of actual labour market transitions.

However, in real-world data, every individual can naturally only be observed in one labour market state at any point in time – for example, she is either employed, unemployed or inactive in a given month. Therefore, it is impossible to observe the counter-factual net and gross income of an unemployed individual for the case he/she would work at the same time, for instance. The researcher is thus forced to rely on actually observed transitions in the data, which requires panel data, in order to be able to compare income/benefit receipt in different labour market states for the same person. For all the individuals that do not make a transition, there is no micro data for a different labour market status. This holds especially for all persons who never undertake a labour market transition due to a high METR. Consequently the observable levels of METRs may underestimate the size of the indicator.

The alternative approach of estimating the METR of a **hypothetical** transition from unemployment to employment, would consist in comparing unemployed individuals with employed individuals. This procedure involves the problem of finding comparable persons. Beside the problem of very low numbers of observations in forming comparable groups by observable characteristics, employed and unemployed persons would still likely be very different with respect to unobservable characteristics, e.g. intrinsic motivation to work, reliability, etc. Hence, we do not pursue this approach further.

In contrast to analyses using realised transitions, in simulation models one can assume a particular level of productivity, skills, and other characteristics, and simply simulate different scenarios (e.g. employment and unemployment) for a given system of taxation and social security benefits. In other words, hypothetical scenarios are simulated, given the assumptions made. Hence, simulation models are well suited for analyses of reform plans. However, simulation models have no information about actually realised incomes and benefits, apart from potential data used to calibrate the model.

In Section 3.3.4, we compare our results derived from the EU-SILC data with the latest study by Carone et al. (2009). The advantage of these results for our comparison is that they cover the same time span as our EU-SILC data. Thus, the institutional framework should be the same. Carone et al. (2009) use the OECD Tax Benefit Calculator and assume that an unemployed person is 40 years of age, worked full time over a period of 22 years without any interruption and received earnings amounting to 67 per cent of the wage level of the average production worker (APW). That is, the benefits that the unemployed receives are determined by these restrictive assumptions. This has a strong influence on the calculations since in most of the countries the eligibility criteria to obtain unemployment benefits and the amount of unemployment benefits depend to a large extent on the past working record and the level of earnings before being unemployed. Additionally it is assumed that unemployment is involuntary. Based on these assumptions they simulate the net income situation for the second month of unemployment so that there is no restriction or waiting time for unemployment benefits and potential in-work benefits added. As a consequence, the amount of unemployment benefits as well as the simulated METR for a transition from unemployment to employ-

<sup>&</sup>lt;sup>8</sup> Since the 2007 edition of Benefits and Wages the OECD has changed the definition for the benchmark from average production worker (APW) to average worker (AW). For detailed information see Annex A in Benefits and Wages: OECD Indicators, 2007.

ment will be relatively high, reflecting an "upper bound" (Carone et al. 2004). In strong contrast, as outlined above, our results within EU-SILC rather reveal the typical size of METR of individuals who decide to undertake the labour market transition. Hence, the simulated METRs should be higher than our EU-SILC results.

For the re-entry level of earnings, four different scenarios are considered (50 per cent, 67 per cent, 100 per cent, 150 per cent of APW wage level), that is, it is simulated that the unemployed, who again start a job, receives at least 50 per cent (scenario 1) and up to 150 per cent (scenario 4) of the APW wage level. The METR are simulated for the year 2007.

When calculating METRs, CRs and NRRs with micro data such as EU-SILC, we do not simulate hypothetical transitions from directly applying the tax/benefit systems, but solely use the actual transitions covered in EU-SILC. As already described for Task 1 (Chapter 2), we isolated the cases of transitions from unemployment and inactivity to employment and from employment to unemployment. However, investigating actual transitions is limited by the number of observed transitions in EU-SILC, which is further lowered by the availability of information on incomes and benefits that are required to calculate the indicators of interest. If the number of observations is too low, detailed stratified disaggregated analyses are not possible. Also, recall that both approaches for the METR and the NRR only account for cash payments. Potential provision or subsidisation of childcare or housing are not considered but might play an important role, especially for low-income households, in some countries.

With respect to the NRRs, the problems mentioned with respect to the calculation of METRs do not apply. The reason for this is that, in contrast to the job acceptance decision related to transitions from unemployment to employment, transitions from employment to unemployment in the large majority of cases can be assumed to be involuntary. There are several reasons for this: First, unemployment benefits are generally not high enough to induce workers to quit their job into unemployment. Second, unemployment benefits are often only paid for a relatively short period, further reducing the incentive to become unemployed. Therefore, there is no strong selection taking place, which leaves our estimated NRRs relatively unbiased.

Since EU-SILC consists of real-world data, the observations in the data set have a wide variety of work records, income levels, and age. Hence, the entitlement and, at the same time, the amount of unemployment benefits is expected to be lower than in the simulation model described above. Moreover, as described in Section 3.2.1, we do not have information on the exact amount of unemployment benefits paid in a given month, and therefore distribute the yearly amount of unemployment benefits to the months of unemployment. We therefore cannot account for a potential phasing-out of unemployment benefits or in-work benefits. Consequently, this is an additional reason why the METR computed in this study are significantly lower than the simulated METR values. This holds for the METRs from unemployment to employment as well as for the METRs from inactivity to employment.

Finally, in order to be able to compare the indicators computed from EU-SILC with the ones from simulation-based analyses, we classify the household types according to the Carone et al. (2009) – note that this is a different classification than the one we use in the rest of our analysis. In particular, Carone et al. (2009) use the following distinction:

<sup>&</sup>lt;sup>9</sup> For detailed information about the methodology of the OECD Tax Benefits Calculator see http://www.oecd.org/dataoecd/46/20/44434626.pdf. There also exist simulation results calculated with the EUROMOD simulation model (Immervoll 2004).

- 1. Single, no children
- 2. Single, 2 children
- 3. One-earner adult couples, no children
- 4. One-earner adult couples, 2 children
- 5. Two-earner adult couple, no children
- 6. Two-earner adult couple, 2 children

## 3.2.3 Econometric methodology

In the econometric analysis, we investigate three topics:

- The correlation between the probability of making a transition from unemployment or inactivity to employment, and the METR;
- The determinants of the individual probability of receiving unemployment benefits (which is closely connected to the CR);
- iii. The determinants of the individual NRR.

When investigating the first topic econometrically, we closely follow the methodology in Task 1 (see Chapter 2), but only focus on the transitions to employment. We therefore estimate two separate logit models (cf. Box 3.1 for technical details) with the respective transitions as the dependent variable:

- 1. Transitions from unemployment to employment
- 2. Transitions from inactivity to employment

The main explanatory variable of interest is the METR. In order to include the METR as explanatory variable in our regressions, we proceed as follows: First, we compute this indicator of the tax-and-benefit system for the types of household separately for every country – note that this is done on the basis of workers making an actual transition. We then assign the value of this indicator to all the workers belonging to a specific household type in a given country. We do so for all workers, i.e. both for those who made a transition and those who did not make a transition in the data. In other words, the indicator is included in the regression as an explanatory variable at the three-dimensional country-household type-level. Given that we also control for (time-invariant) country-specific effects, and for household characteristics, this variable should only measure the relationship between the tax-and-benefit system and the probability of making one of the two transitions to employment.

Furthermore, for both models we estimate two separate specifications, one with and one without net equivalised household income as an explanatory variable. The latter is measured at the time an individual is inactive or unemployed, and is meant to capture the importance of household income for the incentive to take up a job, over and above the effects of the tax-and-benefit system (which is captured by the METR). In our context, this variable is crucial because the decision to take up a job can be seen as a trade-off between leisure (and home production, to a certain extent) and a higher income. This trade-off is likely to be affected by the actual level of income at the household level, because if one partner earns a high income, the incentive to start a job for the other partner may be lower.

Similarly to Task 1, all the model specifications in addition include the following explanatory variables:

#### Box 3.1

#### The Logit and Probit Models

The logit and probit models are obvious choices in the case of binary outcomes, i.e. outcomes that can only take on two values, 0 and 1 (cf. e.g. Wooldridge, 2002). This is true for, e.g., the participation decision (participation: 1, nonparticipation: 0), the distinction between full-time and part-time employment, and between temporary and permanent employment. The outcome is defined as a latent variable  $y^*$  such that

$$y_i^* = x_i^{'}\beta + \in_i$$
.

The outcome is dependent on a vector of observable characteristics  $x_i$  (e.g. socio-demographics) and a random error term  $\epsilon_i$ .

We do not observe  $y_i^*$ , but rather  $y_i$ , which can be interpreted as an indicator for whether the latent variable is positive:

$$y_i = \begin{cases} 1 & \text{if } y_i^* > 0 \\ 0 & \text{otherwise.} \end{cases}$$

The estimated probability should be between 0 and 1. The assumption is fulfilled by cumulative distribution functions. Therefore the model can be rewritten as:  $P(y_i = 1|x_i) = F(x_i'\beta)$ , where F is the logistic cumulative distribution function in the case of the logit model, and the standard normal cumulative distribution function in the case of the probit model.

The marginal effect can be derived by differentiation of F with respect to a particular variable  $x_1$ :

$$mfx_{1} = \frac{\partial E\left(\frac{y_{i}}{x_{i}}\right)}{\partial x_{i}} = f\left(x_{i}^{'}\beta\right)\beta_{1}.$$

f is the density function of the appropriate distribution. The marginal effect is therefore not constant but varies with  $x_i$ . We present the marginal effects derived at the means of all variables.

In applications, the logit model and the probit model usually yield very similar results.

The reported marginal effects  $mfx_1$  can be interpreted in the following way: an increase in variable  $x_1$  by one unit leads to an increase of the output variable by  $mfx_1$  units. Is  $x_1$  a dummy / indicator variable, it means that if  $x_1$  changes from 0 to 1, this leads to an increase of  $mfx_1$  units of the outcome variable.

- A dummy variable for male workers;
- Dummy variables for three age groups (young, middle-aged and older workers);
- Dummy variables for three skill groups: workers possessing low completed levels of education (ISCED 0-2), medium completed levels of education (ISCED 3-4) and high completed levels of education (ISCED 5-6);
- A dummy variable on marital status (1 if the person is married and living with his/her partner, 0 otherwise);
- A dummy variable on partnership (1 if the person has a partner living in the household and is unmarried, 0 otherwise);
- The number of children aged 0-4 in the household;
- The number of children aged 5-14 in the household;
- The number of persons older than 65 in the household;

- A dummy variable for the presence of a full-time employed partner in the household;
- A dummy variable for the presence of a part-time employed partner in the household;
- A dummy variable for part-time employment;
- Year dummies taking into account time-specific effects which are common for all
  workers (e.g. EU-wide trends over time, business cycle effects of the EU economy
  as a whole etc.);
- Country dummies capturing country-specific effects which are constant over time;
- Dummy variables summarising regulations with respect to time limits on the duration of unemployment benefit payments.

As described in detail above, the indicators of the tax-and-benefit systems computed at the personal or household level (METR, NRR, and CR) are subject to some limitations. We therefore construct additional variables in order to capture important aspects of benefit systems across the European Union. This is important as an analysis of unemployment compensation requires taking into account the institutional features of different forms of unemployment benefit (cf. Atkinson and Micklewright 1991). In particular, we construct three additional (sets of) variables:

- 1. "Mandatory training": This variable contains information at the country level on whether a country imposes mandatory training requirements on unemployment benefits recipients;
- 2. "Mandatory job search": This variable contains information at the country level on whether a country imposes mandatory job search requirements on unemployment benefit recipients;
- 3. "Time limit on unemployment insurance (UI) payments": This is a set of four dummy variables which indicate at the individual level the time limit on the payments of unemployment benefits. The time limits considered are less than 6 months, between 6 and 12 months, between 12 and 24 months, and 24 months and more, where the latter time limit serves as the reference category in the regressions.

In order to construct these variables, we use information at the country level from different OECD publications (e.g. OECD 2008a) and from the LABREF database, provided by the European Commission (DG ECFIN). This information is sufficient to construct the first two variables. In order to construct the third variable, in addition to information at the country level, we also use the information on the employment history of individual workers contained in EU-SILC. In particular, the time limits on unemployment insurance payments are usually dependent upon the time a person has spent in employment in the months/years before he becomes unemployed. Unfortunately, this information is not perfectly recorded in the EU-SILC data set. Most importantly, EU-SILC does not provide information on the duration of the current job or of the current unemployment spell (cf. Chapter 7), which leads to a loss of observations and some measurement error. In general, however, we are able to assign to individuals in the EU-SILC data the elements of the tax-and-benefit system relevant to him/her, and to investigate how these elements are related to the probability of making a transition from unemployment or inactivity to employment, to his/her probability of receiving unemployment benefits, and to his/her NRR.

Finally, most of the econometric analysis is conducted for the EU-SILC data set as a whole. In this case, time-invariant differences between countries are captured by the country fixed effects, which allow for cross-national differences in the levels of the dependent variables. For the regressions investigating the relationship between the probability of transiting from inactivity/unemployment to employment and the METRs, we also conduct the econometric analysis separately by country groups. This allows us to investigate whether this relationship is the same across Europe or whether it differs between groups of countries. In doing so, we construct the following country groups:

- Mediterranean: Greece, Italy, Portugal, Spain;
- Continental Europe: Belgium, France, Luxemburg;
- Central and Eastern Europe (CEE): Bulgaria, Czech Republic, Estonia, Latvia, Poland, Romania, Slovenia;
- Sweden (the only country from Scandinavia for which it is possible to conduct the analysis in Task 2).

### 3.3 Descriptive Results

First of all, it should be pointed out that the analysis of taxes, benefits and labour market transitions is severely limited by the data set. Generally, the numbers of observations differ strongly between the observation groups. Furthermore, we can carry out the analysis only for a subset of the countries covered by EU-SILC. In Task 6 we explain in detail for which countries the number of observations is too low and why this is the case (cf. Chapter 7). In addition to the different country-specific tax-benefit systems, low numbers of observations make it difficult to draw definitive conclusions.

In order to document the effective financial burden on the transition to employment, we compute the median of the indicator METR for each household type in each country and year. Similarly, we report the median of the NRR to characterise the typical amount of income a person receives when becoming unemployed. This approach prevents distortions due to extreme values of individual households. The CRs are reported as average numbers, because there is no risk of distortion with this indicator.

In the following sections, we provide a summary of the descriptive evidence on the METRs, CRs and NRRs conditional on household type, country, skills, age, and year. The complete results are provided in the appendix.

#### 3.3.1 The marginal effective tax rate

We compute the METR at the personal and at the household level separately for the transitions from unemployment to full-time employment (UE) and from inactivity/non-participation to full-time employment (IE) (Table A.3.1). The effective burden on the transition from unemployment to employment of a typical EU citizen who experiences this transition, is slightly higher than 29 per cent of the income gain involved (column 1 of Table A.3.1). That is, almost a third of the additional labour income is "taxed away" due to income taxes, contributions to the social security system and losses of benefits.

Single persons without children within the data of EU-SILC display METRs of 26.4 per cent, which is relatively similar to the one of singles with children (25 per cent). Presumably, these differences are not statistically significant. Overall, the group of single households loses least

of all households via taxes, contributions and withdrawn benefits when undertaking the transition from unemployment to employment. The number of children does not seem to be correlated with the METRs of singles.

In contrast, the median METRs of couples are markedly, at least roughly 10 percentage points, higher than those of singles. However, while the METRs of unmarried partners range between 42 and 47 per cent, the METRs of married couples lie between 34 and 41 per cent. Therefore, it seems that unmarried couples experience the highest financial burden when undertaking the transition from unemployment to employment in Europe, while married couples face an METR that lies between those of singles and unmarried couples. Again there is no clear trend that we are able to identify with respect to the effect of the number of children. Considering unmarried partners, we obtain the same picture as in the case of singles: the number of children is uncorrelated with the METR. However, looking at married partners, the median METRs of married persons decrease – presumably statistically significantly – with the number of children. Therefore, while the median METR of unmarried persons rises with the number of children, the median METR of married persons seems to decrease with the number of children in the EU.

Our results are not fully in line with our theoretical considerations. Given that unmarried persons are not taxed jointly, their marginal tax rate should be lower. This is only the case for single households, but not with respect to unmarried partners. If the typical European tax-and-benefit system is structured such that benefits are only paid to unemployed persons if the married partner is not able to finance the unemployed partner, married unemployed persons receive lower benefits compared to unmarried persons. However, in almost all countries unemployment benefits are not means-tested but dependent on the former earnings and working experience. Therefore, no differences between married and unmarried are to be expected in these countries. In line with the latter argument, a comparison of the METRs at the personal level with the ones at the household level reveals that there are no major differences (column 2 of Table A.3.1). The total median METR is 30 per cent and thus less than 1 percentage points higher than the one at the personal level. Without exception, the METR at the household level is at least as high as at the personal level, for all household types.

Considering the median METRs for the transition from inactivity to employment reveals that the effective burden of the tax-and-benefit system on this transition is more or less independent of the household type, with singles with two or more children being the only exception. Over all household types, the METR is 20 per cent, irrespective of whether we consider the value at the personal or at the household level.

The overall conclusion from our results is that, in line with economic reasoning, the incentive to start working from inactivity is stronger than the incentive to take up a job from unemployment, because persons in inactivity do not suffer a loss of unemployment benefits when taking up a job. While unemployed persons face a median loss of about 30 per cent of potential income gains, inactive persons only face a loss of 20 per cent.

Coming back to the evidence reported in Meghir and Phillips (2010), for instance, that especially single parents are sensitive to changes of the tax-and-benefits system, our results suggest that this behavioural pattern seems not to root in especially high METRs of single parents.

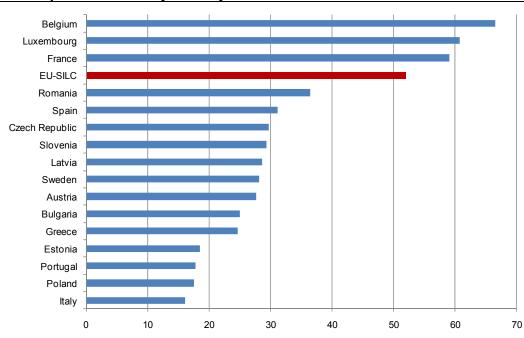


Figure 3.1 **METR UE at personal level by country** 

Source: EU-SILC, own calculations. – Notes: METR = marginal effective tax rate at personal level, METR-HH = marginal effective tax rate at household level; UE = transition from unemployment to employment, IE = Transition from inactivity to employment. The EU-SILC bar represents the median value of the countries covered by the EU-SILC sample.

As the tax-and-benefit systems as well as the fractions of the different household types partly differ significantly from one country to another in the EU, the results for the different household types could be mainly driven by these differences. Regarding the analysis of the METRs for UE transitions at the country level (see Figure 3.1), there is one further country – beyond the twelve countries that had to be excluded from the analysis right away from the beginning (see above and Chapter 7) –, Romania (42), where the number of observation is below 100 (but at least 25), and hence reported in parentheses (Table A.3.2) in order to emphasise that these results have to be considered with special care. Regarding the IE transitions (see Figure 3.2), there are another three countries with a number of observations below 100: Bulgaria (89), Greece (40) and again Romania (37). Overall, we have a sufficient number of observationsfor 16 out of 28 countries covered by EU-SILC for both transitions.

At the personal level, seven countries display a country-specific METR for this transition that is at least as high as the overall median of roughly 29 per cent: Austria, Belgium, Czech Republic, France, Greece, Italy, and Sweden. Four countries – Austria (61 per cent), Belgium (67 per cent), France (52 per cent), and Sweden (59 per cent) – display an METR of more than 20 percentage points higher than the overall European METR. Austria, Belgium, and Sweden have METRs that are even more than double the European median METR. High METRs can be driven by high losses in unemployment benefits and by high tax rates. In Austria and Belgium there exist high tax rates and social security contributions while the amount of unemployment benefits is very high in France and Sweden and there is no time limit of unemployment benefits in Belgium. At the other extreme, Bulgaria, Estonia, Spain, Luxemburg, Latvia, Poland, Portugal, Romania, and Slovenia have country-specific METRs lower

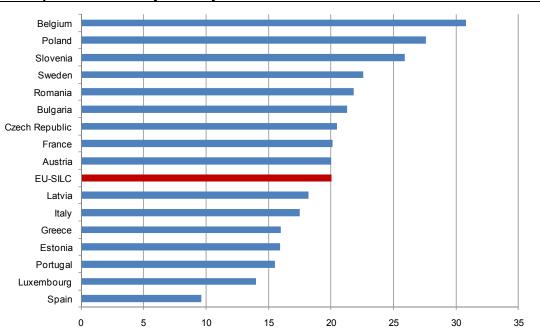


Figure 3.2 **METR IE at personal level by country** 

Source: EU-SILC, own calculations. – Notes: METR = marginal effective tax rate at personal level, METR-HH = marginal effective tax rate at household level; UE = transition from unemployment to employment, IE = Transition from inactivity to employment. The EU-SILC bar represents the median value of the countries covered by the EU-SILC sample.

than the European median of 29 per cent. These downward deviations are however not as high as the upward deviations. In Bulgaria, Estonia, Latvia and Portugal, the METR at the personal level is below 65 per cent of the European METR (19 per cent).

Looking at the household level, the cross-country picture of METRs is qualitatively similar. However, interesting differences can be observed. While for 14 of the 16 countries the METR at the household and at the personal level are more or less the same, the METR at the household level is roughly 3 percentage points higher in Bulgaria and 7 percentage points higher in Spain.

The standard deviation of the METR (based on the 16 national METRs) at both levels is 17 percentage points, and thus comparatively high. In comparison, the standard deviations of the METRs of the IE transitions are only about 6 percentage points, and thus markedly lower. This smaller overall bandwidth for the METR in case of a transition from inactivity to employment (even if corrected for the smaller size of the IE-transition METR compared to the UE-transition METR) suggests that the cross-country differences between the European countries are significantly lower with respect to the transition from inactivity to employment. This could be explained by markedly different levels of unemployment benefits in the countries.

The METR on IE transitions in Belgium, Bulgaria, the Czech Republic, France, Poland, Romania, Sweden, and Slovenia is higher than the overall European value of 20 per cent. In Belgium, the METR on IE transitions is more than 30 per cent. Therefore, Belgium displays for both UE and IE transitions the highest tax-and-benefit burden on labour market transitions among the European countries we are able to analyse. While the burden on UE transitions in

Austria is the second highest, the burden on IE transitions seems moderate. Sweden, in contrast, has the third-highest burden on UE transitions and the fourth-highest on IE transitions.

Only in Spain (at both the personal and the household level), the METR on IE transitions is much lower than the European value of 20 per cent. Thus, the METR in Spain is only 48 (58) per cent of the European burden at the household level (at the personal level). The second-lowest METR on IE transitions is displayed by Estonia and Greece with 16 per cent, which represents about 80 per cent of the overall European METR. Apart from two countries, Bulgaria and Latvia, the burden on IE transitions is much lower than the burden on UE transitions. However, in some countries, especially in Poland the difference between the burden on UE and IE transitions is quite small.

With respect to the distinction of skill levels, we find no strong differences (see Table A.3.3, middle part), so that the level of skills does not matter much for the disincentives provided by the tax-and-benefit system for the UE transition. However, it seems that being low-skilled corresponds to an METR on the IE transition which is about 3 to 4 percentage points lower.

Looking at the three age groups "age 15 to 24", "age 25 to 54" and "age 55 to 65" we find that the burden of the system on the transition from unemployment to employment increases with age (Table A.3.3, upper part). While persons in age group 15-24 face an METR of only 22 per cent, the oldest group of unemployed workers faces an METR which is twice as high (44 per cent). This could be explained by the fact that, on average, an older person has been employed longer than a younger one, so that the unemployment benefits are higher for the older age. In contrast, the burden on the transition from inactivity to employment, is for all age groups roughly the same (about 20 per cent).

Comparing the METRs of both types of transition by gender (Table A.3.3, bottom part) we find no remarkable differences. As all tax and benefits rules in Europe should not discriminate by gender, this is plausible.

Finally, we observe a trend to slightly lower METRs on UE transitions in the course of time (Table A.3.4). In contrast, the METRs on IE transitions are more or less stable until 2006 and have increased in 2007.

## 3.3.2 The coverage ratio

We now turn to the next tax-and-benefits system indicator, the CR of the unemployment benefit system. The figures on CRs by household type (Table A.3.5), reveal that there is some variation between household types for both the newly unemployed and all unemployed individuals, with the former generally displaying markedly higher CRs. Across all unemployed persons, the European median CR is 29 per cent, while the same number for the group of the newly unemployed is 52 per cent. Again unmarried partners display the highest numbers: The fraction of unemployed unmarried partners receiving unemployed benefits is the highest among all household types. There is some tendency that the CR of all unemployed partners with children is lower than that of partners without children, irrespective of whether they are married. For the newly unemployed, this only holds for singles.

The higher CRs for newly unemployed persons are probably due to differences in eligibility between the underlying subgroups of the population. In the group of unemployed as a whole,

there are many long-term unemployed individuals whose unemployment benefits have been cut after a certain time.

Higher CRs for newly unemployed individuals compared to all the unemployed can be observed for most countries in the sample (Table A.3.6). Again the results vary strongly between countries (see Figures 3.3 and 3.4). The bandwidth of ratios across the countries ranges from low numbers below 17 per cent (Bulgaria, Estonia, Greece, Italy, Poland, Romania) to high numbers above 80 per cent (Austria, Belgium). The same holds qualitatively for newly unemployed persons. The lowest values for both numbers occur in Bulgaria (3, resp. 11 per cent), Greece (8, resp24 per cent),) and Estonia (11, resp. 20 per cent). In contrast, in Austria and Belgium 90 percent and more enjoy unemployment benefits.

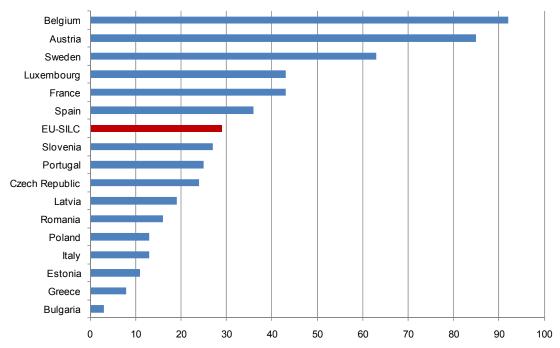
A crucial element of the systems that at least partially explains the variation between the different countries is the time limit for unemployment benefits and/or unemployment assistance, which is organised quite differently in the European countries. Though there have been certain reforms, the pattern outlined should qualitatively hold in the years analysed. In Belgium, for instance, there is, in principle, no limit for unemployment support. Long-term unemployed individuals, beyond an age of 50, even receive an enhanced benefit and an exemption from the job search obligation. For example, the time limit in Germany is 6 to 24 month. In contrast, in Bulgaria the limit varies significantly with the time span an unemployed has paid contributions before becoming unemployed; the support is limited to between only 4 to 12 month. In Greece it varies between 5 to 12 month, depending on the time being employed, in Lithuania it also depends on the personal insurance record and varies between 6 to only 9 month, and in Estonia it is a range between 6 to 12 month, that is determined by the insurance record, too. The importance of such differences is investigated in the econometric analysis.

Together with our results on the METRs, the results on CRs may reveal crucial differences in the tax-and-benefit systems across the European countries. However, the different CRs may also reflect quite different social structures, that is, differences in the willingness to claim benefits if having a right to or, in a related vein, the effectiveness of families in supporting unemployed family members without state benefits (cf. Riphahn 2001).

Across the different skill groups, higher skills are generally associated with a higher CR, both for all unemployed persons and for newly unemployed individuals (Table A.3.7, middle part). While the CR of all unemployed increases from 27 per cent (low skilled) to 36 per cent (high skilled), the ratio increases from 50 per cent (low skill) to 56 per cent (high skill) for the subgroup of the newly unemployed.

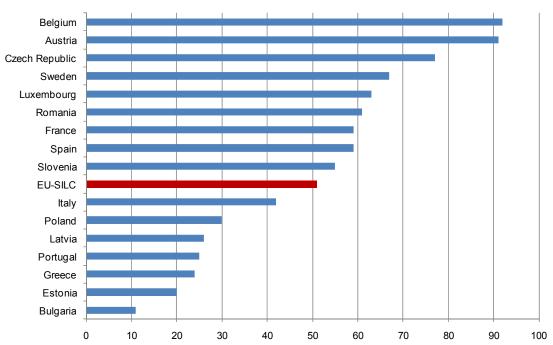
The age group comparison (Table A.3.7, upper part) shows a strong positive relationship between age and the CR, that is, older individuals are more likely to be covered by unemployment insurance. While the ratio of the youngest group "age 15-24" is only 17 per cent,

Figure 3.3 CR Stock (all unemployed) level by country



Source: EU-SILC, own calculations. – Notes: The coverage ratio (CR) indicates the number of (newly) unemployed persons receiving unemployment benefits divided by the total number of (newly) unemployed persons. "Newly unemployed" is defined as having made a transition from employment to unemployment during the last 12 months.

Figure 3.4 **CR Flow (newly unemployed) level by country** 



Source: EU-SILC, own calculations. – Notes: The coverage ratio (CR) indicates the number of (newly) unemployed persons receiving unemployment benefits divided by the total number of (newly) unemployed persons. "Newly unemployed" is defined as having made a transition from employment to unemployment during the last 12 months. The EU-SILC bar represents the median value of the countries covered by the EU-SILC sample.

the ratio nearly doubles to 33 per cent for the older group "age 25-54". For the newly unemployed, the corresponding numbers are 38 per cent and 56 per cent, respectively. As already explained before, older persons have paid contributions to the unemployment insurance for a longer time, on average, and thus have a claim to unemployment benefits more often.

Our results suggest that there is no clear association between CR and gender (Table A.3.7, bottom part). Though the ratio of all unemployed is 2 percentage points higher for men and is 1 percentage point higher for men in the group of the newly unemployed, presumably these differences are not statistically significant. Hence, we find no indication for differences by gender in the European countries covered.

The year-specific results (Table A.3.8) suggest an initial positive time trend of the CR in Europe in the years 2004 to 2006. In 2007, however, the numbers decreased again.

## 3.3.3 The net replacement rate

Finally, we turn to the third indicator of the tax-and-benefit system, the NRR, i.e. the level of unemployment benefits an unemployed person receives, relative to his previous wage. We compute the NRR along the same dimensions as the CR and the METRs, namely household type, country, age, skill level, gender and year. Again persons of age 55 or older are excluded from the analysis.

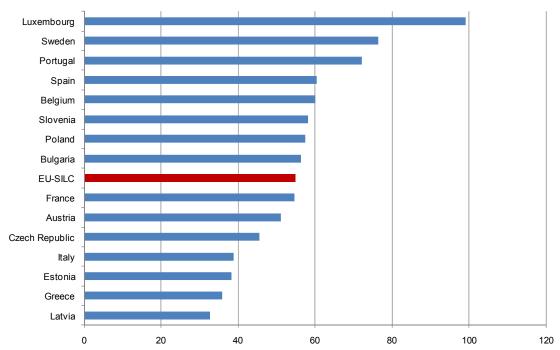
While in the first scenario, we report the NRR considering unemployment benefits plus the family and housing allowances, in the next scenario (NRR 2) we report the results for the case where we solely consider unemployment benefits. It becomes apparent (Table A.3.9) that, as expected, for each household type the NRR at the household level is higher than the NRR at the personal level. Furthermore, the NRR at the personal level suggests that individuals who become unemployed in Europe at the median receive about 59 per cent of their former net income in employment. On the other hand, the NRR at the household level suggests that considering the entire net income of the household in which the unemployed lives, the household net income only falls to about 87.5 per cent when becoming unemployed. That is, given the assumption that unemployed persons have a claim to the net income of other members of the household, which is most plausible in households of married persons, the income loss associated with a transition from employment to unemployment is much smaller than considering the NRR at the personal level. This result is qualitatively affirmed by the NRR2 results. While the numbers at the household level are equal, the personal NRR restricted to unemployment benefits (NRR2) is 4.5 percentage points lower than the unrestricted NRR. This suggests that the other benefits such as the family and housing allowances are important for the unemployed at the personal level.

Going into the details of the household types' results, it turns out that there are significant differences. The only household type with a median NRR at the personal level below the overall median of 59.3 per cent are the singles without children (53.9), who obtain about 4.5 percentage points less. At the household level, this is also the case for the unmarried as well as married partners with two or more children, but only to a very small degree. While the NRR at the personal level increases with the number of children for the single households, the NRR of partners living together only increases with the first child. This implies that family and housing allowances may play an important role for these household types. Having another child corresponds to an NRR at a level which is between the NRR of partners without

children and partners with 1 child, however. At the household level, there is no clear rule to identify. Overall, the NRR of singles without children is significantly lower than the indicators of the other household types in Europe. Moreover, the variation of the NRR is comparatively small between the household types of married persons.

When comparing the countries, it becomes evident that the pattern that the NRR at the household level is higher than the one at the personal level holds for all countries, without exception (Figure 3.5 and Table A.3.10). The lowest NRRs at the personal and the household level are displayed by Latvia (35, resp. 77 per cent), Greece (37, resp. 84 per cent), Italy (43, resp. 75 per cent), and Estonia (49, resp. 79 per cent). The highest NRRs at the personal level, in contrast, prevail in Luxembourg (99 per cent), Sweden (80 per cent), Portugal (72 per cent), and Belgium (64 per cent); at the household level, the highest NRRs can also be observed in Luxembourg (99 per cent), the Czech Republic (95 per cent), Poland (94 per cent), Sweden and Portugal (91 per cent, respectively). Thus, the overall cross-country variation of NRRs is quite high.





Source: EU-SILC, own calculations. – Notes: NRR = net replacement rate at personal level, NRR-HH = net replacement at household level; EU = transition from employment to unemployment; 2: Calculation without family benefits and housing allowances. The EU-SILC bar represents the median value of the countries covered by the EU-SILC sample.

Turning to the NRR2, where only unemployment benefits are considered, it turns out that the countries at the top and at the bottom of the ranking remain more or less the same. However, for two countries the rank changes significantly, namely for France and Spain.

It becomes apparent that persons belonging to different skill groups do not display very different NRRs (Table A.3.11, middle part). Turning to the NRR 2, our results might suggest that the family and housing allowances are much more important for the low- and medium-skilled persons, but less for the high-skilled households. However, the differences are quite small and potentially are even not statistically significant.

While at the personal level, the NRR is not correlated with age (Table A.3.11, upper part), the NRR slightly decreases with age at the household level. At the household level, the young receive 90 per cent but the old only 87 per cent. Turning to the NRR 2, where only unemployment benefits are considered, the NRR interestingly slightly increases with age at the personal level, but decreases with age at the household level. This suggests that, given lower incomes, the importance of the family and/or housing allowances is higher for younger households.

It turns out that there seems to be a small difference of NRR by gender at the household level (Table A.3.11, bottom part). Compared to men, women experience an about 4.5 percentage points higher NRR at the household level. The difference of the NRR 2 is even slightly higher. A potential explanation is that men are to a larger part the main income earner. Thus, the loss of his wage income hits the household harder than the loss of the wage of women, who are more often only the secondary income earner of the household, so that her wage income represents a lower fraction of household income. At the personal level, it may be that on average family benefits, that continue to flow after a job loss, represent a larger part of the total personal income of women, so that women lose a smaller part of their income when becoming unemployed. The comparison of the NRR and NRR 2 results support this hypothesis.

Comparing the NRRs in the course of time, we find in all four scenarios a negative trend of the NRR (Table A.3.12). That is, the generosity of the systems in Europe seems to have decreased in reference to unemployment support at the median. In 2007, however, we find an increase at the personal level.

Note that all our results for the three indicators should only be interpreted as a correlation, but not as a causal relationship in any sense.

#### 3.3.4 The results of data-based and simulation-based analyses in comparison

In this section, we compare the results of our EU-SILC micro-data analyses to the results of the existing literature on replacement rates and METRs, such as Carone et al. (2009), Immervoll and O'Donoghue (2003) or OECD Data, who use either the OECD tax/benefit simulation model or EUROMOD to calculate the METR and NRR indicators for hypothetical household types in the countries of the EU.

Recall, however, that a direct comparison of the results is difficult and should be handled with care (cf. Section 3.2.2). While in the simulation model literature mentioned above, a variety of hypothetical labour market transitions is simulated for different household types, we analyse a variety of actually realised transitions observable within the EU-SILC micro data set. Therefore, the interpretation of the simulated indicators and the observable indicators differs especially with respect to the METR indicator.

With respect to tax rates, our comparison applies to the METRs of realised transitions from unemployment to employment (METR<sub>RL</sub> UE) and the METRs of realised transitions from inactivity to employment (METR<sub>RL</sub> IE) on the one hand, and the corresponding values derived from simulation models on the other hand (METR<sub>SM</sub> UE and METR<sub>SM</sub> IE). The simulated results of Carone et al. (2009) show a systematic pattern for the four scenarios within one type of household (cf. Table $^{\circ}$ A.3.13). The METR<sub>SM</sub> UE falls with a higher gross wage. For example, in Belgium, a single household without children who realises a transition from unem-

ployment to employment with a gross wage of 50 per cent of the average production worker wage (scenario 1) faces an METR $_{\rm SM}$  of 90 per cent. In contrast, a person who has a simulated gross wage of 150 per cent (scenario 4) after the transition faces an METR $_{\rm SM}$  of 69 per cent.

A first look at the number of observations in EU-SILC (see Table A.3.14) reveals that the group of singles without children shows sufficient observations for a comparison. Only Greece and Sweden show less than 100 observations and are left out in the following. Except for Austria, all other calculated values are, as expected, lower in comparison to the simulated values. For example, the lowest METR<sub>SM</sub> for France is 41 per cent against the realized median METR<sub>RL</sub> of 33 per cent. The largest difference between METR<sub>RL</sub> UE and METR<sub>SM</sub> UE is observed for Latvia (45 percentage points), Luxembourg (43 percentage points), Spain and Portugal (39 percentage points), and for Italy (32 percentage points). Taking a look at the working record, the variable "years of employment" shows an overall median for these countries of 12 years for Latvia, 5 years for Luxembourg and Spain, 3 years for Portugal and 7 years for Italy. This stands in strong contrast to the assumed 22 years in Carone et al. (2009). 10 In addition to this difference, more than half of all unemployed individuals in Bulgaria, Estonia, Spain, Latvia, Poland and Portugal receive no family benefits, housing allowances and unemployment benefits. This explains the low METR<sub>RL</sub> UE, since the transition from unemployment to employment leads, if at all, to a small loss of benefits. Another reason for this might be that even unemployment insurance systems take socio-demographic factors, especially the situation of dependent children or spouses, into account. For example, Spain has an increased initial payment rate of unemployment benefits if the unemployed person has dependent children (Carone et al., 2009: 86.)

Concerning the other household types, the two earner households without children show values with more than 100 observations for Austria, Bulgaria<sup>11</sup>, the Czech Republic, Estonia, Spain, France, Italy, Luxembourg, Poland and Slovenia. The METR<sub>RL</sub> UE for Austria, France, Luxembourg and Sweden are within the range of Carone et al. (2009). In contrast to the single household without children, we can see that the working record for those countries is between 10 years for Austria and 24 years for Sweden. As a consequence, we implicitly assume a higher eligibility for people to obtain unemployment benefits as well as, due to the household composition, a higher amount of housing allowances. The Austrian METR<sub>RL</sub> UE is 62 per cent, which is, compared to the simulated values, at the lower end of the METR<sub>SM</sub> UE range. In the world of the simulation model, an METR of 62 per cent corresponds to a simulated gross income of 150 per cent of the average production worker wage level after the transition to employment. As for France, the METR<sub>RL</sub> of 66 per cent lies between the METR<sub>SM</sub> of a simulated gross wage of 100 per cent, and 67 per cent of the average production worker.

The METR<sub>RL</sub> for Luxembourg is even higher, at 83 per cent, with a realised net income gain of only 18 per cent. Apparently, the high METR<sub>RL</sub> does not necessarily hinder transitions. This might be explained by the phasing out of benefits, which is expected by the unemployed individual, but does not feature in the data. Another reason could be seen in non-pecuniary factors such as, for example, stigma of being jobless (Riphahn, 2001). Moreover, the fear of

11 There is no METR for Bulgaria in Carone et al. (2009).

<sup>&</sup>lt;sup>10</sup> The variable "years of employment" does not provide information on whether there was an interruption in the working record which may had an influence on eligibility to unemployment benefits. In many countries it is sufficient to have only a working record of two years to be fully eligible for unemployment benefits.

being unemployed over a longer time frame reduces the level of human capital and reduces the bargaining power in the labour market. This might lead to a situation where people take up a job with a lower wage in comparison to the wage before the unemployment spell. A look at the institutional conditions for unemployment insurance in Luxembourg in 2007 shows that unemployment benefits are paid for 365 days in a period of 24 months. This example might show that not only the level of the METR is decisive for a flexible labour supply, but the characteristics of the insurance system, too.<sup>12</sup>

Only for Spain, a comparison of five and for Poland a comparison across all six household types is possible. Poland does not show any differences in the realised values of the METR<sub>RL</sub> UE with 28 and 29 per cent. The values for Poland are significantly lower than the ones calculated by Carone et al. (2009). The lowest METR<sub>SM</sub> UE can be observed at 48 per cent for two-earner couples with two children after a simulated gain in gross income of 150 per cent, and 46 per cent for one-earner adult couples after the same change in gross income. A closer look at the net income position (after the transition) reveals that the monthly net income ranges between 218 and 367 Euro, which would correspond to approximately 50 per cent of the AW earnings per month. So we obviously have a group of low-income households in EU-SILC, which only pay a small amount of income taxes (19 per cent after a deduction of a basic tax credit, see OECD 2005, 2006a, 2007a, b, and 2008a, b) and social contributions. Additionally, the level of benefits is low and they realise a low METR<sub>RL</sub> UE. Nonetheless we would have expected an even lower value for households with children, because there exist tax allowances for dependent children.

In contrast, the picture for Spain is much more diverse. Whereas the group of singles without children has the lowest METR<sub>RL</sub> UE of 15 per cent, one-earner adult couples with two children, who carry out a transition, face a METR<sub>RL</sub> UE of 67 per cent. This same household type shows for the simulated METR<sub>SM</sub> UE a range from 92 to 52 per cent, which implies that the METR calculated from EU-SILC lies between the simulated values (cf. Table A.3.13).

In contrast to the situation described above, the METR<sub>RL</sub> for the transition from inactivity to employment (METR<sub>RL</sub> IE) shows only a few countries and household types feature more than 100 observations (cf. Table A.3.15). For singles without children, only Estonia, Spain, Italy and Slovenia can be discussed. Here, the METR<sub>RL</sub> IE ranges between 10 per cent for Spain and 26 per cent for Slovenia. In comparison to these values, Carone et al. (2009) calculate a range for Spain of 37 per cent to 63 per cent and for Slovenia between 76 per cent and 52 per cent for the year 2007. So in both cases our calculated METR<sub>RL</sub> IE lies below the values of Carone et al., which is in line with our previous statement that the simulated values represent an upper bound and our results a lower bound. Italy displays a range between 9 and 33 per cent for METR<sub>SM</sub> IE and a median value METR<sub>RL</sub> IE of 19 percentage points.

The METR<sub>RL</sub> IE can also be reported for "two-earner adult couples" but there are more than 100 observations for Estonia, Spain, Italy and Poland only. In the case of Spain, the realised METR is significantly lower regarding a transition from inactivity to employment (10 per cent) than the realised METR for a UE transition (40 per cent). For the same country, Carone et al.

<sup>&</sup>lt;sup>12</sup> Andersen (2010) shows in a study on Scandinavian countries that incentives to start a job are affected negatively by the METR but positively by the employment conditionalities.

(2009) show for the so-called inactivity trap indicator<sup>13</sup> a range between 18 per cent and 27 per cent, i.e. slightly above the values computed from EU-SILC.

Turning to the NRR indicator, we compare our results of the NRR2 to the one of the OECD (Table A.3.16, Table A.3.17, Table A.3.18, Table A.3.19) since both consider the ratio between unemployment benefits and the net employee income. Recall that the METRs within EU-SILC were lower than the simulated values due to two effects, (i) the fact that individuals with high METR are not carrying out a transition within EU-SILC (downward bias) and (ii) because the simulation model assumes, among other things, long working records that do not apply to many individuals in the real world. Note that for the NRR indicator, only argument (ii) holds. Still, due to (ii) and our assumption that unemployment benefits are uniformly distributed over the months a person is unemployed in a given year, the EU-SILC NRRs should be lower than the simulated NRRs.

As for Austria, the NRR<sub>RL</sub> is at 50 per cent for singles without children (see Table A.3.20) and the OECD rates at 55 per cent (67 per cent, 100 per cent, 150 per cent of AW level), except for people with a previous income level of 150 per cent of the average worker (AW) earnings, which move at roughly 40 per cent over the years 2003-2007. Belgium shows a NRR<sub>RL</sub> of 62 per cent, whereas the NRR<sub>SM</sub> ranges between 77 per cent for someone previously earning 67 per cent of the average worker level and a NRR<sub>SM</sub> of 42 per cent for someone earning 150 per cent of the average worker level before becoming unemployed. A comparable pattern of the differences between the NRR<sub>RL</sub> and the NRR<sub>SM</sub> can be found for Spain, Poland and Slovenia.<sup>15</sup>

A significant difference between the compared results can be observed for the singles households in Italy. The  $NRR_{RL}$  is 22 per cent in contrast to the corresponding  $NRR_{SM}$  of 65 per cent. A possible explanation is that in Italy, the working record in EU-SILC for households consisting of singles is only 7 years.

Thus, with respect to the NRR indicator, our results are, as expected, quantitatively comparable to the OECD simulation results. Moreover, both results reveal that there are no large differences between the household types. Furthermore, the fact that the NRR results of our data analysis are much more similar to the simulation results could reflect that most transitions to unemployment are indeed involuntary. Therefore, for the NRRs it is not a problem that we can only analyse actual transitions: while the METR is biased downwards since all individuals who do not carry out the transition towards starting a job because of a too high METR are not observed, the size of the NRR is not biased by this aspect.

Overall, our comparison does not cast doubts on our EU-SILC results. Turning to the METR, our, in comparison, significantly lower values are plausible given the different approaches followed. It is important, however, to distinguish our METR $_{\rm RL}$  UE from the definition by Carone et al. (2004). These authors define the METR for an unemployed person as an indicator which measures the financial incentives to move from unemployment to employment and call this the "unemployment trap" indicator. In contrast, the METR within our study describes the apparently "accepted" METR in the sense that it is based only on persons who

<sup>&</sup>lt;sup>13</sup> "Inactivity trap" describes a situation with a high Marginal Effective Tax Rate which provides a strong financial disincentive to move from inactivity or unemployment to employment. See Carone et al. (2004: 42).

The results can be drawn from the Tax-Benefit Calculator available at: http://www.oecd.org/document/18/0,3343,en\_2649\_34637\_39717906\_1\_1\_1\_1,00.html.

<sup>&</sup>lt;sup>15</sup> Results for Slovenia are not reported by Carone et al. (2009) but can be drawn from the OECD Tax-Benefit calculator.

realised a transition from unemployment to employment; all individuals with so high METRs that the person did not carry out the transition – and thus did not "accept" the apparently prohibitive size of the METR – are not accounted for. In principle, we can therefore interpret the METR computed from the EU-SILC data set as the upper bound where people are still motivated to take up a job. In practice, there is some uncertainty in the estimation of this upper bound because there are also reasons other than financial considerations for taking up a job, such as stigma costs, the partner becoming unemployed, or the running out of benefit payments.

## 3.4 Econometric Analysis

### 3.4.1 Transitions to employment

Following the recent review of evidence on several reforms in the UK, the "Mirrlees Review" (Adam et al. 2010), the decision to take up a job "is quite sensitive to taxation and benefits for women and mothers in particular" (Meghir and Phillips 2010: 204). Moreover, while this decision seems to be very unresponsive for men with high levels of education, it is more responsive for people with a low education level. One of the aims of the econometric analysis is therefore to investigate the correlations between the probability of taking up a job and different socio-economic characteristics, both at the individual and at the household level.

As explained in detail in Section 3.2.2, the econometric analysis in Task 2 builds on the methodology employed in Task 1. Consequently, most of the explanatory variables in the regressions of Task 2 are extensively dealt with in Task 1, and our discussion now focuses on the main variable of interest, the METR, as well as the additional explanatory variable net household income.

The main result from the regressions of the entire EU-SILC data set is that no statistically significant relationship between the probability of making a transition from unemployment or inactivity to employment and the marginal effective tax rates can be found in the data (cf. Tables A.3.21 and A.3.22).

There are several potential explanations for this finding. First, if the results are taken at face value, they could simply reflect the fact that, on average, taxes and (withdrawn) benefits do not play an important role for the decision of unemployed or inactive individuals to take up a job. Instead, non-pecuniary aspects as well as observable and unobservable individual characteristics may be of much greater importance. Andersen (2010), for instance, provides an empirical analysis showing that the METR has a negative effect on labour force participation, but that non-pecuniary incentives play an important role, too. Therefore, one could conclude that further aspects of the tax-and-benefit system play a decisive role, and that the METR is not sufficient to cover all incentive effects of the system.

Second, in order to uncover statistically significant relationships between variables, econometric analyses require sufficient variation of both the variable to be explained and of the regressors that should explain this variation. In our case, it becomes apparent from the descriptive evidence that the METRs do not display much variation between household categories, but more variation between countries. This problem of lacking variation could be alleviated in two ways. On the one hand, one could increase the number of household categories, and additionally compute METRs for further subcategories such as age groups. This increases the number of different values the METR variable can take, and therefore is likely to

raise the variation of the variable. However, we explored this possibility using different household categories and additionally differentiating between three age groups, but obtained very similar results. Furthermore, using more categories goes hand in hand with reducing the number of observations available in each category, which in turn leads to a greater measurement error.

On the other hand, in order to deal with the problem of low variation in the explanatory variable of interest, one could eliminate from the regressions some of the other explanatory variables that may capture some of the variation. This could particularly be the case for the country dummies, which may pick up some of the cross-country differences in tax-andbenefit systems. Furthermore, the variables used to construct the household types (married, number of children) are included as separate variables in the regression. Therefore, these variables, too, may absorb some of the variation which is due to taxes and benefits. There are, however, problems with this approach. First, eliminating these variables may lead to wrongfully attributing correlations to the METR indicator. For example, if the country fixed effects were excluded much of the cross-country variation might be absorbed by the METR indicator, thus potentially leading to a high coefficient and a statistically significant correlation. However, the cross-country variation could be due to factors other than METRs, e.g. employment protection. Therefore, the METR indicator would measure the cross-country correlation between the transition probabilities and the tax-and-benefit system, but also the correlation between the transition probabilities and the extent of employment protection. which can lead to wrong conclusions. Eliminating the variables used to construct household types could lead to similar problems. Then, the METRs would not only capture the correlation between the transition probabilities and the tax-and-benefits system, but also between the transition probabilities and having children, independently of tax and benefits considerations. Also, we explored this possibility and did not find strongly altered regression results.

A third reason for the lacking correlation between transitions and the tax–and-benefit indicator could be the fact that we compute our METR indicator from actually realised transitions within EU-SILC. In other words, the explanatory variable is constructed from observations where people have made a transition from inactivity or unemployment to employment. As outlined above, this should bias our METRs downward. If the METR is prohibitively high for an inactive or unemployed person, he will in all likelihood not make this transition, which is also a reason why variation is relatively low in our data. METRs that are so prohibitively high that unemployed or inactive individuals decide not to start a job are thus not used in our econometric analysis. Consequently, there are no observations of METRs that belong to persons that did stay in inactivity or unemployment. We would only find a statistically significant (negative) relationship if relatively high METRs, which do not hold back some individuals from making transitions to employment (otherwise we would not observe these transitions in the data set), act as strong disincentives to make a transition for other individuals of the same group. This does not seem to be the case in the EU-SILC data.

A fourth reason could consist in the fact that the potential disincentives coming from the taxcum-benefit systems could be reduced, or even undone, by sanctions or punitive benefit reductions which are applied to unemployed individuals (cf. Abbring et al. 2005, Boone et al. 2009). In this case, the aggregate effects of the tax-cum-benefit system would be A final reason could be that the relationship between the tax-and-benefit system and labour market transitions differs between the countries covered by EU-SILC. This avenue is explored further below.

The regression results also reveal that there is a significant relationship between the probabilities of making a transition from unemployment or inactivity to employment and net equivalised household income. Interestingly, the correlation displays opposite signs for the two transitions. The transition from inactivity to employment is negatively correlated with net equivalised household income. One potential explanation for this result is that members of poorer families have a stronger incentive to take up a job in order to contribute to the income of their family. The opposite relationship can be observed for transitions from unemployment to employment. Potentially, a high (equivalised) household income signals a household group of employed (presumable even well earning) persons, so that the pressure to find a job is higher than in households with lower group income, that is, with less well-earning household members. Therefore, both mechanisms might counteract for inactive and unemployed members of households. But inactive persons per se are used to have no job, so that this second mechanism is quite weak. We cannot provide evidence for these hypotheses, however.

In a next step, following the insight of Andersen (2010), we extend the baseline specifications by adding indicators for the strictness of the unemployment benefit system to the regressions. The results indicate that time limits on the duration of payment of unemployment-insurance benefits have the expected signs (cf. Tables A.3.23 and A.3.24): Under regimes with shorter duration, transitions from both unemployment and inactivity to employment are more frequent. Furthermore, this effect is stronger the shorter the duration of payments. This result in all likelihood reflects the fact that unemployed workers increase their search effort and/or lower their reservation wage at the end of the entitlement period, which has been found by numerous empirical studies (e.g. Katz and Meyer, 1990; Hunt, 1995). The coefficient of the METR, however, remains insignificant. The other variables reflecting the characteristics of the unemployment benefit system, mandatory training and mandatory job search, did not turn out to be significant in any way. The results for these variables are therefore not reported in detail.

Next we investigate whether the relationship between the two transition probabilities considered and the METRs differs across the countries covered by EU-SILC. We therefore estimate the regression for the three country groups for which the number of observations is high enough, Continental Europe, CEE, and the Mediterranean (cf. Section 3.2.3). The results of this exercise yield some interesting results. On the one hand, for the probability of transiting from unemployment to employment, the METRs remain insignificant for CEE and the Mediterranean (cf. Table A.3.25). However, for Continental Europe, the METR becomes significantly negative. Therefore, in Continental Europe, higher METRs are correlated with a lower unemployment-to-employment transition probability.

On the other hand, for the probability of transiting from inactivity to employment, while the coefficient of the METR is significantly negative in the CEE countries, it is significantly positive in Continental Europe, and insignificant in the Mediterranean countries (cf. Table A.3.26). Therefore, higher METRs go together with lower transition rates from inactivity to employment in the CEE, and with higher transition rates in Continental Europe. The former result could be explained by disincentive effects: If the METR is high for a given group of the popu-

lation, then the corresponding transition has a lower relative pay-off, which leads to lower transition rates. The result for Continental Europe, on the other hand, could be due to several factors. First, the disincentive effects described above do not strongly affect the decision of individuals to make a certain transition. This could be due to the fact that non-pecuniary motives play an important role. Second, wage growth could be important, too (cf. OECD 2006b). The METRs we compute only take into account the initial wage in a job. <sup>16</sup> Now, the initial wage could be relatively low, resulting in a high METR, but subsequent wage growth could be high. In this case, individuals would not regard even relatively high METRs as prohibitive, because the expected wage growth in the following significantly decreases the METR in the aftermath. Third, it might be that many inactive persons in Continental Europe only start a job if they earn a high wage relative to their previous wage (cf. Ljungqvist and Sargent 2006). Higher wages, in turn, cause higher marginal tax rates and higher social security contributions, that is, higher METRs. Consequently, this characteristic not to be found in less developed countries, may explain even significant positive coefficients of the METR within Continental Europe.

Finally, it is well documented that there are marked differences between the labour market behaviour of men and women (Azmat, Guell and Manning 2006). Therefore, we also estimated the models separately for men and women. The results can be summarized as follows: For women, the transition probability from unemployment to employment is not significantly correlated with METRs (cf. Table A.3.27). Therefore, financial considerations do not seem to play an important role in this context for women. For men, by contrast, higher observed METRs are associated with lower transition rates from unemployment to employment in the CEE and in Continental Europe (cf. Table A.3.28). This is the expected result if one interprets the level of the METRs as an indicator for the financial disincentives emanating from the tax-and-benefit system.

For transitions from inactivity to unemployment, women display a significantly negative coefficient on METRs in the CEE countries, but a significantly positive coefficient in Continental Europe (cf. Table A.3.29). For the same transition type, the correlation between the transition probability and the METRs is significantly negative for men in the CEE countries and in Continental Europe, but significantly positive for men in the Mediterranean countries (cf. Table A.3.30).

Taken together, the regression results for men and women imply large behavioural differences both between countries and between men and women. Generally speaking, financial incentives seem to matter a lot for men, which is witnessed by significantly negative correlations between transition probabilities and METRs. For women, this does not seem to be the case, with the same correlations being insignificant or even positive. The most likely explanation for the positive correlation is that women only take up a job if this job suits their abilities particularly well, which implies a relatively high wage and therefore high METRs.

## 3.4.2 Coverage rates and net replacement rates

Given the information contained in the EU-SILC data set, it is also possible to econometrically analyse the coverage of unemployment benefits and the NRR at an individual level. For the coverage of unemployment benefits, we perform two separate analyses: one for all unemployed workers, and another for newly unemployed workers. The evidence on the prob-

<sup>&</sup>lt;sup>16</sup> To be precise, it takes into account the average wage earned during the calendar year in which the job starts.

ability of receiving unemployment benefits shows that there is no clear time trend, and that there are large differences between countries, which were already apparent in the descriptive evidence (cf. Table A.3.31). Furthermore, one can see that several individual and household characteristics are significantly correlated with the receipt of unemployment benefits. This is in all likelihood due to these characteristics being associated with an individual's type of employment (self-employment, employment covered by social security legislation, etc.) and with his/her labour market history. For example, low-skilled workers may be more likely to have an interrupted working record than high-skilled workers, and therefore do not qualify for extended periods of unemployment benefits. The same is true for individuals with children, who are likely to spend at least some time in inactivity, thus not accumulating entitlements to unemployment benefits.

In an additional regression, we also include indicators of the unemployment benefit systems in Europe. It becomes apparent that individuals, who are affected by strict time limits on the duration of payment of unemployment benefits, are less likely to receive unemployment benefits. The most intuitive explanation for this is a direct effect, which leads to many unemployed individuals dropping out of the unemployment benefit system after a certain time. However, this result can also be observed for newly unemployed workers, for whom this effect cannot play a role. We therefore suspect that the indicator on time limits also captures some other features of the unemployment benefit system, such as strict conditionality and/or monitoring.

Finally, in this task we econometrically investigate the determinants of NRRs for those newly unemployed workers who receive unemployment benefits. From the results, it becomes apparent that, while individual characteristics are generally not correlated with NRRs, many country effects are strongly significant (cf. Table A.3.32). These results are not surprising, given that unemployment benefit systems generally pay the same percentage of the previous wage income to everyone, independently of his/her personal or household characteristics. So, the cross-country differences found in the descriptive analysis, as well as the evidence in the literature (cf. Immervoll, O'Donoghue 2003) are confirmed.

#### 3.5 Conclusion

In Task 2 we investigate characteristics of the European tax-and-benefit systems, as well as their link with transitions to employment. The characteristics considered are the potential financial disincentives established by the systems measured by the METR; and the insurance they provide, which is measured by the CR of unemployment benefits (i.e. how many persons, who become unemployed, are supported by unemployment benefits), and the level of income replacement they provide, as indicated by the NRR.

Our results reveal large cross-country differences between European countries. This is particularly true for the METR on the transition from unemployment to employment but also for the METR on the transition from inactivity to employment, although to a lesser extent. Thus, in line with economic reasoning, the incentive to start working from inactivity is bigger than the incentive to take up a job from unemployment, because persons in inactivity do not suffer a loss of unemployment benefits when taking up a job.

<sup>&</sup>lt;sup>17</sup> Unfortunately, given the lack of information on the duration of employment and unemployment, as well as the rotational design of the EU-SILC data, this is difficult to control for directly.

With respect to household types, we find the pattern that, at the median, single households face the lowest METR, married couples a medium burden, while the unmarried couples face the highest disincentive to start a job in Europe, irrespective whether we look at inactive or unemployed persons. As for the number of children, we do not find a clear pattern in Europe. Turning to age groups, we find that the METR of unemployed individuals is rising with age, but not the METR of inactive individuals. Moreover, there are no gender differences to observe in EU-SILC.

The NRRs are quite similar for the different household types considered. However, NRRs display a strong dispersion across countries. In addition, the decomposition of the indicator to control for the importance of unemployment benefits in comparison to other benefits, such as family and housing benefits, reveals that they have a different impact across countries for a person who becomes unemployed.

Our econometric analysis indicates that the METRs computed from EU-SILC are not significantly related to the probability of transiting from inactivity or unemployment to employment for the EU-SILC data set as a whole. We argue that this is mainly due to the fact that the METRs computed from actual transitions constitute a lower bound for the METRs of a tax-and-benefit system. Splitting the European countries into country groups, however, we find important cross-national differences. For example, in Continental Europe there exists a significantly negative correlation between the probability of transiting from unemployment to employment and METRs, which is not the case in other countries. A further analysis by gender reveals significant differences between men and women, which vary across country groups. Finally, the effect of net (equalised) household income is negative on the transition from inactivity, but positive on the transition from unemployment to employment.

We find that while CRs are strongly related to individual and household characteristics, this is not the case for NRRs. Finally, indicators capturing characteristics of national unemployment insurance systems are strongly correlated with the probability of making a transition to employment. This is in particular true for time limits imposed on the duration of the payment of unemployment benefits.

# 4. Task 3: Part-time/full-time Work and Temporary/permanent Contracts

This section presents the results of the analysis of specific work arrangements, i.e. part-time employment as well as temporary employment. Besides a descriptive analysis of the extent of part-time and temporary employment in the EU-SILC, we also analyse the transitions between part-time/full-time and temporary/permanent employment as well as the combinations thereof. Section 4.1 gives a brief overview of the background and the empirical strategy. Section 4.2 presents descriptive statistics for the labour market states part-time employment and temporary employment, the transitions between full-time/part-time employment and permanent/temporary employment and their combinations. In Section 4.3, we illustrate the empirical results on the transition probabilities between these employment states and investigate individual labour supply with respect to part-time and temporary employment in more depth. Finally, Section 4.4 concludes.

## 4.1 Background and Empirical Strategy

"Non-standard" work arrangements such as part-time and temporary labour contracts have gained importance during the last decades (Buddelmeyer et al. 2005). On the labour supply side, these work arrangements offer the advantage of additional labour market choices for workers. In particular, they may facilitate labour market entry, especially of young workers and women. On the labour demand side, firms may benefit as they are able to adjust their workforce in a more flexible way. The objective of this task is to analyse the issues on the labour supply side, especially with respect to "choices" between part-time and full-time work and temporary and permanent labour contracts, as well as combinations thereof (e.g. full-time with a temporary contract, full-time with a permanent contract, …). We are particularly interested in which worker groups take up part-time and temporary jobs, and whether these jobs can be a stepping-stone into permanent and full-time employment, respectively.

Strong employment protection is linked to high firing costs. Therefore, regular employment is not sufficient to flexibly adjust the labour force. Employment protection can be circumvented by temporary employment. At the end of the duration of the contract, there are no firing costs for the employer. Furthermore, fixed-term contracts can be used as a screening instrument for new workers (Bookmann and Hagen 2008). However, fixed-term contracts offer less employment security for the workers. Furthermore, there are studies that show that workers in a fixed-term contract earn less and are less often further training participants (e.g. Booth, Francesconi and Frank 2002, and De Graaf-Zijl, van den Berg and Heyma 2010)

The increased flexibility in temporary employment and therefore its increase can be linked to increased unemployment rates (e.g. Holmlund and Storrie 2002, and Ingham and Ingham 2010). However, Blanchard and Landier (2002) argue that temporary employment in France increased unemployment while Ingham and Ingham (2010) suggest that the increase in temporary employment in Poland led to a decrease in unemployment. In this chapter we analyse who takes up temporary employment, which characteristics are decisive for transitions between temporary and permanent employment and vice versa and finally, if there is a stepping stone function of temporary employment into permanent employment.

Information on the individuals' employment states is obtained from two different variables included in the personal data files: information on whether an individual is full-time or part-

time employed is drawn from the variable comprising the individual's self-defined economic status, while the variable "type of contract" provides information on whether the individual is employed on a permanent or a temporary basis.

The descriptive analysis first provides an overview of the amount of part-time and temporary employment in different Member States as well as of several demographic groups, i.e. separated by gender, age, education, occupation, and household composition. This will shed some light on the question which worker groups take up part-time employment and temporary employment, respectively. Second, joint Markov transitions for the different employment states are calculated. Finally, to gain insights into the persistence of transitions into full-time employment and permanent employment, respectively, we investigate two-year transitions.

In the econometric analysis, we start with estimating logit models with the transitions between part-time and full-time employment as well as between temporary and permanent employment as respective outcome variables. The analysis of the transitions between full-time and part-time employment is restricted to those workers who work part-time (full-time) in t-1. The dependent variable is an indicator variable that takes the value 1 if an individual works full-time (part-time) in t and otherwise its value is 0. Similarly, in the analysis of transitions between permanent and temporary employment, the dependent variable is an indicator variable that takes the value 1 for those workers that are temporarily (permanently) employed in t-1 and permanently (temporarily) employed in t. Since in this step, we only consider transitions between part-time and full-time employment and temporary and permanent employment, respectively, but do not consider transitions into unemployment or inactivity, these analyses are based on employed individuals only. For all models, we first present the complete regression results of the respective outcome variable for the baseline specification. Then, the models are extended by different explanatory variables. All of these regressions contain the full set of observable characteristics used in the baseline specification. Regarding the extended models, we will only display the results for the additional regressors. All timevariant variables refer to year t-1, i.e. they represent the individuals' characteristics before the potential transition to a different employment state.

As explanatory variables, individual socio-demographic characteristics, household attributes as well as job characteristics are used. Since some of the potential variables are not fully available for all countries, we define a baseline model with variables for which the sample size is not reduced significantly.

The characteristics used in the baseline models are:

- 1. Individual socio-demographic characteristics: gender, age group, marital status, level of education.
- 2. Household characteristics: number of children younger than five years of age living in the household, number of children aged between 5 and 14 living in the household, number of persons aged 65 and older in the household, labour market status of the spouse living in the household.
- 3. Indicators for country and year of observation.

In a second step, this baseline model is extended by degree of urbanisation, the individual's work experience, his hourly wage, his occupation as well as an indicator of the health status

of the respondent. Since these variables are not fully covered for all country/year combinations, they are excluded from the baseline regression.

To gain insights into country-specific differences in transition rates, we further estimate the baseline model separately for each country group. In doing so, we assume that the individual behaviour within each country group is the same, but we are able to allow for differences in the individual behaviour between the different country groups. We distinguish between five country groups, which read as follows:

- 1. CEE countries: Bulgaria, Czech Republic, Estonia, Hungary, Lithuania, Latvia, Poland, Romania, Slovenia, and Slovakia.
- 2. Continental countries: Austria, Belgium, France, Germany, Netherlands, and Luxembourg.
- 3. Mediterranean countries: Cyprus, Greece, Italy, Portugal, and Spain.
- 4. Scandinavian countries: Denmark, Finland, Norway, and Sweden.
- 5. Ireland and the United Kingdom.

In a third step, country-specific transition rates are graphically analysed.

Since information on the individuals' employment status is also available on a monthly basis (information on the main activity for every month in the year prior to the interview), we further investigate the transitions between full-time and part-time employment on the basis of monthly data. The advantage of employing monthly data consists of capturing short-term transitions between part-time and full-time employment that are not observed in the yearly data. The analysis of part-time employment is further extended by investigating the joint labour supply of spouses within one household. At first, we analyse how one spouse reacts to changes in his partner's labour supply, thereby testing the "added worker hypothesis". The "added worker hypothesis" proposes that married women increase their labour supply temporarily when their husbands become unemployed (cf. Ashenfelter 1980, Lundberg 1985). The dependent variable in the analysis is the difference in working hours from year t-1 to year t. As an explanatory variable, we include the partner's labour market status in year t (year t-1), thereby restricting the sample to individuals having a partner who was employed in year t-1 (year t-2). In a second step, this analysis is conducted separately for the five country groups. In all regressions, the explanatory variables of the baseline specification are included. Again, all time-variant variables refer to year t-1.

Thereafter, we estimate both spouses' labour supply simultaneously, since it is likely that spouses determine simultaneously how many hours to supply taking their own and their partner's characteristics into account. Hence, the individual's labour supply is expected to be a function of his partner's labour supply. Since we do not only include employed individuals in the analysis, but all individuals of working age, a large fraction of zero working hours for those not employed is observed. In order to take this feature into account, the individual's working hours are estimated by applying a Tobit model. As explanatory variables, the regressors of the baseline specification are included.

Furthermore, we analyse the consequences of temporary employment in more depth, i.e. we analyse whether temporary jobs represent dead end jobs or whether they can provide a stepping stone into permanent employment. To investigate this topic, we restrict the sample

to individuals who changed from education (or unemployment) to temporary or permanent employment in the first year they are observed in the survey. For those individuals, we investigate their employment state in the last year of the survey (i.e. after a maximum of 4-years). More precisely, we estimate a *multinomial logit* model (cf. Box 2.1) for the employment states permanent employment, temporary employment, self-employment, unemployment, and inactivity. In addition to the regressors of the baseline specification, we include the individual's employment state in the first year of the survey as explanatory variable in this regression. This provides insight into whether the individual's employment state at labour market (re-)entry has a significant impact on his future labour market state.

Finally, we combine the analyses of part-time/full-time and temporary/permanent employment by estimating *multinomial logit* models for the combinations of these employment states, i.e. the transitions between full-time employment covered by a permanent contract (FP), full-time employment covered by a temporary contract (FT), part-time employment covered by a permanent contract (PP), and part-time employment covered by a temporary contract (PT), are estimated. The explanatory variables are those of the baseline specification, which refer to year t-1.

For all models, marginal effects (instead of hard to interpret coefficient estimates) are reported (where applicable). The empirical analysis is based on individuals aged between 15 and 64 living in private households. In all analyses, individuals working as soldiers (occupation group "armed forces") are excluded. In the analysis regarding temporary employment, we further exclude individuals from Denmark, since information on temporary employment is not available for Denmark. In all estimations, we control for the clustering of standard errors by country, i.e. we allow observations within a specific country to be correlated due to unobservables (e.g. common culture). Moreover, we use person weights (or household weights where appropriate) in all regressions. For all individual characteristics modeled by more than one indicator (e.g. age groups or occupation groups) and for the country-specific intercepts, we also perform pair-wise tests of equality. For example we test if the estimated coefficients for the different education groups (or countries) are statistically different to each other. However, to keep the exposition clear and concise, we will not report the full set of test statistics. Instead, we will highlight the most important findings of the test batteries in the discussion of our estimation results.

To keep the structure of the exposition clear, we first present the empirical analyses regarding part-time employment, followed by the results for the analysis of temporary employment and the combination of these employment states.

## 4.2 Descriptive Overview

This section presents the descriptive results regarding the different employment states. In the first subsection, a descriptive overview of the variation in the amount of part-time employment across countries, gender, age, occupation, and household composition as well as of the transition rates between part-time and full-time employment is provided. In the second subsection, the same descriptive analysis is carried out for temporary employment. The combinations of these employment states, i.e. full-time employment covered by a permanent contract (FP), full-time employment covered by a temporary contract (FT), part-time employment covered by a temporary contract (PT), are then addressed in Subsection 4.2.3.

#### 4.2.1 Descriptive statistics for part-time employment

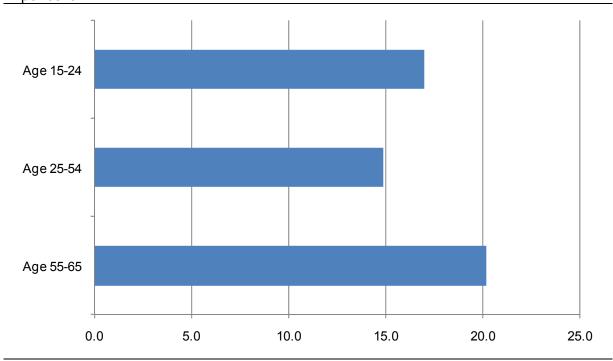
Regarding the employees observed in the EU-SILC, 15.7 per cent are part-time employed (see Table A.4.1 in the appendix). The lowest part-time rates can be observed for Romania, where only 0.6 per cent of the employees work part-time, followed by Slovenia, Slovakia and Bulgaria. In contrast, 40.6 per cent of the Dutch employees are part-time employed. The Netherlands have a much higher rate of part-time employment than any other country. Booth and van Ours (2010) state that the strong growth in part-time jobs in the Netherlands during the last years can be attributed to a gradual change in policy causing barriers for part-time employment to be removed. Laws that made part-time work more attractive were implemented and in 2000 a "right to part-time work" law was introduced. Overall, the share of parttime employees is the lowest in countries belonging to Central and Eastern Europe (CEE), while the Continental countries show the highest part-time rates. In all Member States, the probability of working part-time is higher for women than for men (28.1 per cent vs. 5.2 per cent on EU-SILC average). The gender difference in part-time rates is the highest for the Continental countries, while it is the lowest for the CEE countries as well as Cyprus and Portugal. Hence, those countries with low shares of part-time employment also display low gender differences.

In order to look at the country differences regarding labour supply in more detail, employees' weekly working hours are additionally displayed (see Table A.4.2 in the appendix). Since the definition of part-time employment might vary over individuals and countries, actual working hours are a more precise indicator of individual labour supply than the rate of part-time employment. The average employee in the EU-SILC countries works 37.9 hours per week. Working hours are the highest in the CEE countries (all above EU-SILC average), while they are the lowest for the Netherlands (32.5 hours) and Germany (34.8 hours). Whereas men work 40.9 hours on average, women work only 34.5 hours per week. The highest gender differences in working hours can be observed for the Continental countries (especially Germany and the Netherlands) as well as for the UK and Ireland, whereas there are only small gender differences in the CEE countries. Thus, the differences between the countries in the extent of part-time employment (by gender) are reflected in the respective amount of hours worked.

In addition to cross-national differences in labour supply, differences among several demographic groups can be observed. The comparison of age groups in Figure 4.1 shows that older workers (aged 55 to 65 years) are most likely to work part-time (20.2 per cent), who might mainly be those who are in partial retirement. Of the employees aged between 25 and 54 years, however, only 17 per cent work part-time. The finding of prime aged workers being least likely to work part-time is in line with Buddelmeyer et al. (2005), who analyse the role of part-time work in labour mobility for 11 European countries. However, this finding is somewhat surprising, since one would expect most of the employees working part-time due to child-rearing to be in this age group.

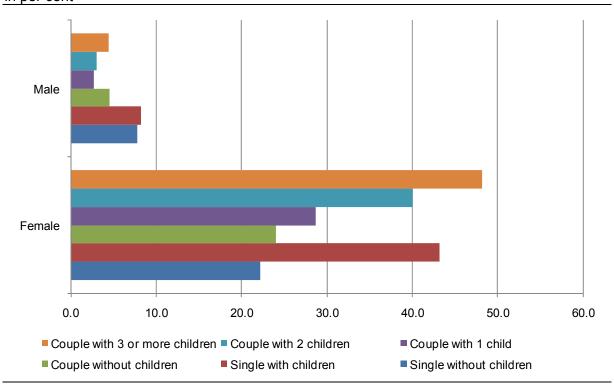
To get a more precise picture of the relationship between part-time employment and the need of child-rearing, Figure 4.2 shows the share of part-time employment by different household types. For men, the share of part-time employment is the highest among those being single (with or without children). For women, the probability of working part-time is the highest for those having a partner and three or more children (48.2 per cent), followed by

Figure 4.1 **Part-time employment by age group** in per cent



Source: EU-SILC, own calculations.

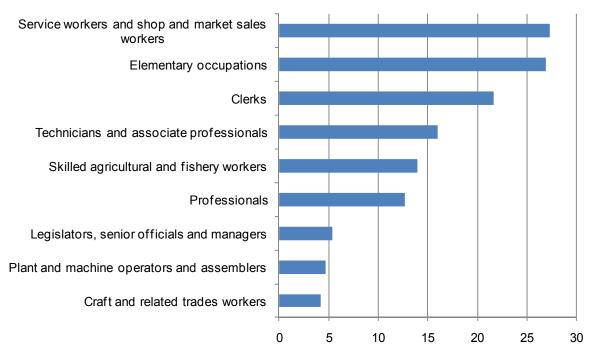
Figure 4.2 Part-time employment by household composition in per cent



Source: EU-SILC, own calculations.

Figure 4.3

Part-time employment by occupation in per cent



Source: EU-SILC, own calculations.

single mothers (43.2 per cent). The share of part-time employment is increasing with the number of children for women living with a partner. Hence, while for women working part-time might mainly be a consequence of motherhood, this does not hold true for men.

Figure 4.3 presents the extent of part-time employment by occupation. While among craft and related trade workers (4.2 per cent) as well as plant and machine operators (4.7 per cent) part-time employment is more or less irrelevant, 27.3 per cent of service workers and 26.9 per cent of the unskilled workers (elementary occupations) are part-time employed. These occupational differences in the prevalence of part-time employment might also be driven by gender differences in the occupational structure.

The yearly joint Markov transitions between full-time and part-time employment (see Table 4.1) give insight into the turn-over between these employment states. 97.1 per cent (80.4 per cent) of the employees being full-time (part-time) employed in one year (year t-1) are still in full-time (part-time) employment in the subsequent year (year t). Hence, the probability of changing from part-time to full-time employment (19.6 per cent) is much higher than the probability of changing from full-time to part-time employment (2.9 per cent). The lowest probability of transiting from full-time to part-time employment can be found for the CEE countries (0.1 to 2.8 per cent) and Portugal (0.7 per cent), whereas relatively high transition rates for Luxembourg (5.8 per cent) and Germany (5.3 per cent) become obvious. While German employees show high transition rates from full-time to part-time employment, they have one of the lowest transition rates from part-time to full-time employment (8.1 per cent). Overall, transitions to full-time employment are the lowest in the Continental countries.

Table 4.1 Yearly and monthly transitions between full-time and part-time employment in per cent

in per cent	Yearly tr	Yearly transitions Monthly transitions				
ORIGIN	full-time	DESTI part-time	NATION full-time	part-time		
EU-SILC	iuli-tiirie	part-time	Tull-tillle	part-time		
full-time	97.1	2.9	99.8	0.2		
part-time	19.6	80.4	1.3	98.7		
Austria	19.0	00.4	1.5	90.7		
full-time	95.7	4.3	99.7	0.3		
part-time	17.3	82.7	1.2	98.8		
Belgium	17.5	02.7	1.2	90.0		
full-time	95.3	4.7	99.7	0.3		
part-time	13.0	87.0	0.9	99.1		
Bulgaria	13.0	67.0	0.9	99.1		
full-time	97.2	2.8	99.9	0.1		
part-time	70.9	2.6 29.1	99.9 2.4	97.6		
Cyprus	70.9	29.1	2.4	97.0		
full-time	98.9	1.1	99.9	0.1		
	26.3	73.7	99.9	98.6		
part-time	20.3	13.1	1.4	96.0		
Czech Republic full-time	00.2	0.7	100.0	0.0		
	99.3		100.0			
part-time	33.4	66.6	1.4	98.6		
Denmark	05.5	4.5	00.0	0.0		
full-time	95.5	4.5	99.8	0.2		
part-time	33.9	66.1	1.6	98.4		
Estonia	00.0		00.0	0.4		
full-time	98.6	1.4	99.9	0.1		
part-time	39.3	60.7	3.4	96.6		
Finland	<b>07</b> -		00 =			
full-time	97.5	2.5	99.7	0.3		
part-time	35.5	64.5	4.0	96.0		
France						
full-time	97.6	2.4	99.9	0.1		
part-time	13.7	86.3	0.9	99.1		
Germany						
full-time	94.7	5.3	100.0	0.0		
part-time	8.1	91.9	0.2	99.8		
Greece						
full-time	97.3	2.7	99.9	0.1		
part-time	35.6	64.4	1.9	98.1		
Hungary						
full-time	98.6	1.4	99.8	0.2		
part-time	48.9	51.1	2.1	97.9		
Ireland						
full-time	96.5	3.5	99.6	0.4		
part-time	18.4	81.6	1.5	98.5		

Table 4.1, continued

	Yearly transitions		Monthly transitions	
ORIGIN	full-time	part-time	NATION full-time	part-time
Italy	Tuil-tillie	part-time	Tull-tillle	ран-шпе
full-time	97.0	3.0	99.8	0.2
part-time	26.2	73.8	1.7	98.3
Latvia	20.2	75.0	1.7	90.5
full-time	98.1	1.9	99.9	0.1
	57.6	42.4	2.8	97.2
part-time Lithuania	57.0	42.4	2.0	97.2
	00.6	1.4	00.0	0.1
full-time	98.6	1.4	99.9	0.1
part-time	59.9	40.1	2.8	97.2
Luxembourg	04.0	5.0	00.0	0.4
full-time	94.2	5.8	99.6	0.4
part-time	10.5	89.5	0.7	99.3
Netherlands				
full-time	95.4	4.6	99.8	0.2
part-time	7.9	92.1	0.4	99.6
Norway		_		_
full-time	95.1	4.9	99.5	0.5
part-time	35.9	64.1	2.7	97.3
Poland				
full-time	98.6	1.4	99.9	0.1
part-time	37.7	62.3	2.0	98.0
Portugal				
full-time	99.3	0.7	99.9	0.1
part-time	20.4	79.6	1.5	98.5
Romania				
full-time	99.9	0.1	100.0	0.0
part-time	56.2	43.8	1.0	99.0
Slovakia				
full-time	98.9	1.1	99.9	0.1
part-time	33.4	66.6	4.6	95.4
Slovenia				
full-time	99.2	0.8	100.0	0.0
part-time	34.0	66.0	1.3	98.7
Spain				
full-time	97.3	2.7	99.8	0.2
part-time	41.2	58.8	2.5	97.5
Sweden				
full-time	95.1	4.9	99.2	0.8
part-time	21.7	78.3	3.0	97.0
United Kingdom				
full-time	95.4	4.6	99.5	0.5
part-time	18.2	81.8	1.8	98.2

Source: EU-SILC, own calculations.

Hence, those countries with the highest share of part-time employment show the lowest transitions rates into full-time employment, a finding that is in line with OECD (2010). In contrast, transition rates of more than 50 per cent can be observed for Hungary, Lithuania, and Latvia. While in the Continental countries the decision to work part-time seems to be a long-term or even an ultimate decision (e.g. for women who reduce their working hours due to the birth of a child), in the CEE countries part-time employment constitutes a temporary employment state.

A different picture emerges regarding the monthly transitions between the employment states (see Table 4.1). By definition, the monthly transition rates between part-time and full-time employment are much smaller compared to the yearly transitions. From one month to another, 0.2 per cent of the workers covered by EU-SILC transit from full-time to part-time employment and 1.33 per cent transit from part-time to full-time employment. While again the CEE countries show the lowest transition rates to part-time employment, the highest transition rates (0.4 to 0.77 per cent) can be observed for the Scandinavian countries and the UK and Ireland. Moreover, while German workers are most likely to transit to part-time employment from one year to another, they show one of the lowest monthly transition rates. Since naturally the sum of monthly transition rates should be at least as high as the yearly transition rate, this might be a problem of the retrospective character of the monthly data. Being asked about their labour market states in the previous year, respondents might forget shorter periods of part-time employment and state to have been full-time employed over the year. Monthly transition rates to full-time employment are the highest in CEE and Scandinavian countries, whereas Continental countries are characterised by low monthly transition rates to full-time employment. Thus overall, the Scandinavian countries show the highest labour market fluctuation between part-time and full-time employment, whereas the CEE countries show the lowest one.

Up to now, we have only investigated the transitions between part-time and full-time employment. In order to gain insights into the stepping stone function of part-time employment, we further look at the persistence of transitions into full-time employment by analysing twoyear transitions from part-time to full-time employment. Conditional on a transition between year t-2 and year t-1 from part-time to full-time employment, we investigate if the worker is still in full-time employment in year t (see Table A.4.3 in the appendix). Of the individuals having changed from part-time to full-time employment in the previous year, 78.9 per cent are still in full-time employment in the current year. However, the share of full-time employed workers varies over the countries. With a share of 59.1 per cent, Denmark shows by far the lowest full-time rate, followed by Austria (64.4 per cent), the UK (66.8 per cent), and Belgium (68.6 per cent). In contrast, full-time rates of more than 90 per cent are found for Bulgaria, Portugal, Greece, the Czech Republic, Slovakia, France, Poland, and Finland. Moreover, considerable gender differences become obvious. In almost all countries, men are more likely to stay in full-time employment than women, while the highest gender differences are observed for Belgium, the UK, and Austria. In Denmark, Lithuania, Norway, Portugal, and Slovenia, women show a higher probability of staying full-time employed, once having changed from part-time to full-time employment.

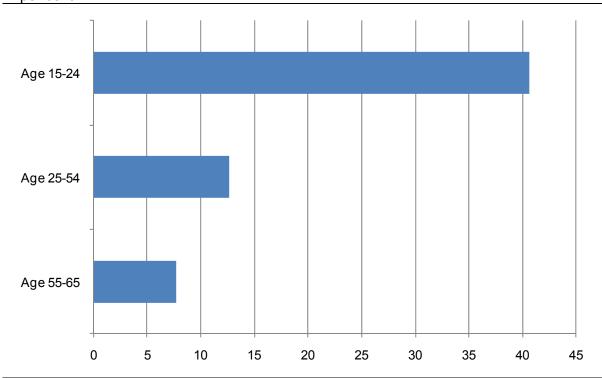
## 4.2.2 Descriptive statistics for temporary employment

Regarding the amount of temporary employment among EU-SILC countries (see Table A.4.4 in the appendix) it can be observed that 14.6 per cent of all employees are em-

ployed on a temporary basis. The countries with the lowest shares of temporary employment are Estonia (2.5 per cent), Romania (3.7 per cent) and the United Kingdom (4.5 per cent). For all CEE countries, except for Poland, the share of temporary employees is below the EU-SILC average. In contrast, the Mediterranean countries show the highest rates of temporary employment, which are very high for Spain (27.3 per cent). Being confronted with high unemployment rates, Spain implemented a reform in 1984 that aimed at increasing labour market flexibility. Part of this reform was the introduction of temporary contracts. This reform was more radical than in other European countries, since temporary contracts are not restricted to some type of workers or sectors (Güell and Petrolongo 2007).

The differentiation by gender hardly reveals any difference in the share of temporary employment between men and women. This finding is in line with Picchio (2008) for Italy and Díaz and Sánchez (2008) for Spain. However, in some countries there is a prevalence of male temporary employment compared to female temporary employment. While all countries with more men being temporarily employed belong to the CEE countries (e.g. Latvia (9.1 vs. 5.3 per cent) and Estonia (3.1 vs. 2 per cent)), the opposite is true for Finland (12.3 vs. 19.1 per cent) and Cyprus (7.8 vs. 16.5 per cent).

Figure 4.4 **Temporary employment by age group** in per cent



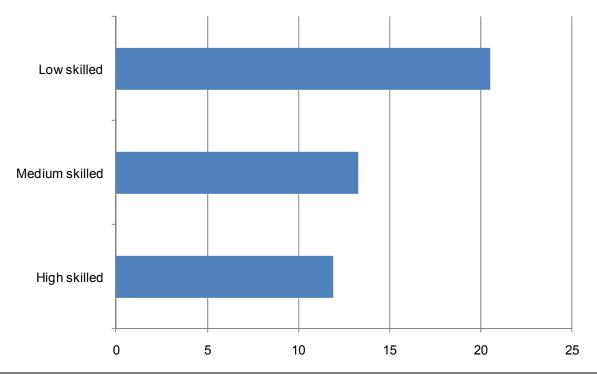
Source: EU-SILC, own calculations.

In addition to cross-national differences, differences in the amount of temporary employment among several demographic groups can be observed. Figure 4.4 shows that the share of temporary employment decreases with age. With a share of 40.6 per cent, workers younger than 25 years are much more likely to have a temporary contract than workers in the other

age groups.<sup>18</sup> This finding is in line with the existing literature that observes a negative relationship between age and temporary employment (e.g. Gebel and Giesecke 2009 for Germany, Holmlund and Storrie 2002 for Sweden, and European Commission 2010) and it could be a first indicator for temporary jobs being a stepping stone into permanent employment.

The share of temporary employment by the individuals' highest level of education is displayed in Figure 4.5. As expected, temporary employment is most prevalent among unskilled labour: While only 11.9 per cent of the high-skilled and 13.3 per cent of the medium-skilled employees have a temporary contract, this is true for 20.5 per cent of the low skilled-workers.

Figure 4.5 **Temporary employment by education** in per cent



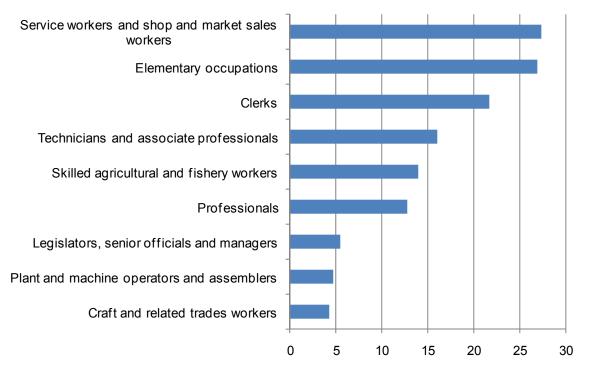
Source: EU-SILC, own calculations.

Figure 4.6 provides evidence that temporary employment is most prevalent among service workers and shop and market sales workers (27.3 per cent) and elementary occupations (26.9 per cent). In both occupations more low skilled-workers are employed. Therefore, the finding for services and elementary occupations is in line with the prevalence of temporary employment among low-skilled workers. With a share of temporary employment of 3.8, temporary employment is by far the least prevalent among legislators, senior officials and managers.

The yearly transition rates between permanent and temporary employment give a first insight into the stepping stone function of temporary contracts (see Table 4.2). While only 3.4 per cent of the employees change from permanent to temporary employment from year t-1 to

<sup>&</sup>lt;sup>18</sup> Since in some countries (e.g. Austria and Germany) temporary contracts are common during vocational training, the sample is restricted to those workers not being in education.

Figure 4.6
Temporary employment by occupation in per cent



Source: EU-SILC, own calculations.

year t, 34.6 per cent change from temporary to permanent employment. This is consistent with the hypothesis of temporary employment being a stepping stone into permanent employment. Very low transition rates from temporary to permanent employment can be found for France (17 per cent) and Finland (21.8 per cent), followed by the Mediterranean countries (between 24.6 per cent for Portugal and 33.2 per cent for Spain). The finding of considerably low transition rates into permanent employment for Spain is in line with the literature (see e.g. Ayuso i Casals 2004). While the Spanish labour market had experienced high rates of gross job creation in the 1990s, little permanent employment had been created as only a small fraction of temporary contracts had been converted into permanent contracts. The labour market has gradually evolved towards a dual structure, with two thirds of employees retaining a permanent status and the rest working in a highly mobile market (Güell and Petrolongo 2007). Hence, temporary employment seems to fulfil a different role in Spain than it does in the other countries. Temporary jobs are much more dead-end jobs than intermediate positions between unemployment and regular work. The highest transition rates into permanent employment are observed for the countries belonging to Central and Eastern Europe, notably Estonia (79.7 per cent) and Latvia (71.0 per cent). Thus, those countries with the lowest share of temporary employment are also those with the highest transition rates into permanent employment.

In order to gain insights into the persistence of transitions into permanent employment we analyse two-year transitions from temporary to permanent employment. Conditional on having had a transition from temporary to permanent employment between year t-2 and year t-1,

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Table 4.2 Yearly transitions between permanent and temporary employment in per cent

in per cent ORIGIN	DESTINATION					
Ortiont	permanent	temporary				
EU-SILC	permanent	temperary				
permanent	96.6	3.4				
temporary	34.6	65.4				
Austria	01.0	00.1				
permanent	96.7	3.3				
temporary	59.9	40.1				
Belgium	00.0	10.1				
permanent	97.9	2.1				
temporary	45.4	54.6				
Bulgaria	10.1	01.0				
permanent	96.5	3.5				
temporary	76.7	23.3				
Cyprus	. 0.1	_0.0				
permanent	97.1	2.9				
temporary	32.0	68.0				
Czech Republic	02.0	00.0				
permanent	95.9	4.1				
temporary	42.5	57.5				
Estonia						
permanent	99.2	0.8				
temporary	79.7	20.3				
Finland	-					
permanent	98.5	1.5				
temporary	21.8	78.2				
France						
permanent	98.6	1.4				
temporary	17.0	83.0				
Germany						
permanent	97.5	2.5				
temporary	36.1	63.9				
Greece						
permanent	94.6	5.4				
temporary	31.9	68.1				
Hungary						
permanent	94.7	5.3				
temporary	65.2	34.8				
Ireland						
permanent	97.5	2.5				
temporary	57.7	42.3				

Table 4.2, continued

ORIGIN	DESTINATION				
	permanent	temporary			
Italy					
permanent	96.8	3.2			
temporary	36.3	63.7			
Latvia					
permanent	97.7	2.3			
temporary	71.0	29.0			
Lithuania					
permanent	97.6	2.4			
temporary	60.9	39.1			
Luxembourg					
permanent	98.3	1.7			
temporary	49.5	50.5			
Netherlands					
permanent	97.3	2.7			
temporary	27.6	72.4			
Norway					
permanent	97.1	2.9			
temporary	53.6	46.4			
Poland					
permanent	94.9	5.1			
temporary	33.9	66.1			
Portugal					
permanent	96.8	3.2			
temporary	24.6	75.4			
Romania					
permanent	98.9	1.1			
temporary	62.2	37.8			
Slovakia					
permanent	95.8	4.2			
temporary	45.1	54.9			
Slovenia					
permanent	93.7	6.3			
temporary	64.1	35.9			
Spain					
permanent	93.1	6.9			
temporary	33.2	66.8			
Sweden					
permanent	96.4	3.6			
temporary	65.2	34.8			
United Kingdom					
permanent	98.4	1.6			
temporary	62.3	37.7			

Source: EU-SILC, own calculations.

we investigate if the worker is still in permanent employment in year t if he is still employed (see Table A.4.5 in the appendix). Of the individuals having changed from temporary to permanent employment in the previous year, 86.6 per cent are still in permanent employment in the current year. The share of permanently employed workers varies from 77 per cent and 79.3 per cent in Sweden and Spain, respectively, to 94.6 per cent and 100 per cent in France and Estonia, respectively. While in some countries women are more likely to stay permanently employed than men (e.g. Hungary, Lithuania, and Latvia), the opposite is true for some other countries (e.g. Cyprus and Greece).

# 4.2.3 Descriptive statistics for the combinations of full-time/part-time and permanent/temporary employment

Since the decisions between part-time and full-time employment and temporary and permanent employment are simultaneous, the combinations of these employment states, i.e. fulltime employment covered by a permanent contract (FP), full-time employment covered by a temporary contract (FT), part-time employment covered by a permanent contract (PP), and part-time employment covered by a temporary contract (PT), are also of interest (see Table A.4.6 in the appendix). In all countries included in EU-SILC, permanent full-time employment is the most common employment state (72 per cent on EU-SILC average), while temporary part-time employment is the least frequent one in almost all countries (3.9 per cent on EU-SILC average). Exceptions are Greece, Spain, and Poland, where permanent part-time employment is the least frequent employment state, as well as Ireland, which is characterized by a very low rate of temporary full-time employment. Since both the rate of part-time employment and the rate of temporary employment is the lowest in the CEE countries, these are also the countries that show the highest difference in the share of holding employees in permanent full-time and temporary part-time employment. The share of full-time employees having a temporary contract amounts to 12.1 per cent, while 12 per cent of the employees covered by EU-SILC work part-time having a permanent job.

Table 4.3

Yearly transitions between full-time/part-time and permanent/temporary employment in per cent

ORIGIN	DESTINATION					
	Full-time, permanent	, , ,				
full-time, permanent	94.5	2.9	2.3	0.3		
full-time, temporary	34.6	60.2	1.3	3.9		
part-time, permanent	15.0	1.4	80.7	3.0		
part-time, temporary	12.7	19.4	17.3	50.6		

Source: EU-SILC, own calculations.

In order to gain insights into the simultaneity of the decisions between part-time and full-time work as well as temporary and permanent employment, the yearly transition rates between these four employment states are additionally displayed (see Table 4.3). For those individuals being permanently full-time employed in t-1, the most frequent transitions are to temporary full-time employment (2.9 per cent) and part-time permanent employment (2.3 per

cent), but only 0.3 per cent change to part-time temporary employment. With 1.3 per cent and 1.4 per cent, respectively, the transition rates from full-time temporary employment to part-time permanent employment and from part-time permanent to full-time temporary employment are somewhat higher. The highest "cross"-transition rate (i.e. a change of both working time and contract type), however, is observed for individuals being part-time temporarily employed in t-1: of those, 12.7 per cent change to full-time permanent employment within the next year.

#### 4.3 Econometric Evidence

The descriptive overview provides some evidence on which worker groups take up part-time employment and temporary employment, respectively. However, we cannot control for different influencing factors at the same time. Moreover, up to this point we have only investigated the individual characteristics of those being part-time employed and temporarily employed, respectively. In addition, interest is directed towards the factors correlated with transitions between these employment states. These shortcomings are solved with the help of regression analyses. In Section 4.3.1, the empirical analysis regarding part-time employment is presented, followed by the results for the analysis of temporary employment (Section 4.3.2) and the combination of these employment states (Section 4.3.3).

# 4.3.1 Econometric analysis of part-time employment

In the following econometric analysis, we first investigate the factors that are correlated with the transitions between part-time and full-time employment. Since changes from one activity to another can only be measured as a yes/no variable, we estimate a logit model (see Box 3.1 for further explanation), with the dependent variable taking the value 1 if a change from t-1 to t occurred and 0 otherwise. Furthermore, we focus on couples living within one household and investigate the interrelation between both spouse's labour supply and model the partners' labour supply simultaneously.

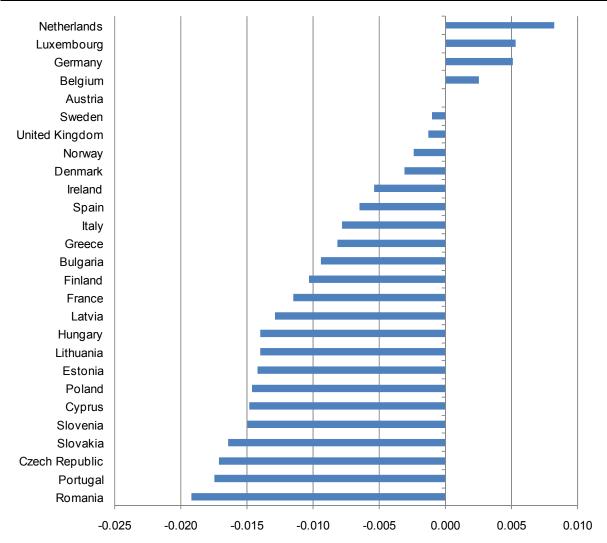
#### Transitions from full-time to part-time employment

The estimation results for the transitions from full-time to part-time employment show that men are less likely to change to part-time employment from year t-1 to year t (3.7 percentage points for the regression including all countries; see Table A.4.7 in the appendix) and this finding appears for all country groups (see Table A.4.8 in the appendix). Individuals aged between 25 and 54 years have a lower probability of changing from full-time to part-time employment than persons younger than 25 years in all country groups. This finding is somewhat counterintuitive, since one would expect a high fraction of employees (especially women) who change to part-time employment due to family responsibilities to be in this age group. However, as we only observe direct transitions between part-time and full-time employment, those who temporarily leave the labour market for child-rearing are not included in the sample.

In the Mediterranean countries and the UK and Ireland, older workers (55-65 years) show a lower transition rate to part-time employment compared to young workers. Except for the Continental and the Scandinavian countries and the UK and Ireland, the transition probability is negatively correlated with the skill level in all country groups. However, this relationship is more pronounced for women than for men. Compared to single men, married men have a lower transition probability, while married women do not differ from single women in this re-

spect. While the number of children of both age groups is positively correlated with women's transitions to part-time employment, the number of children between 5 and 14 years displays a "negative association" with men's transition probability. This finding could be an indicator for the existence of fixed gender roles in regard to family responsibilities. While women decrease their working hours due to child-rearing, men are less likely to decrease their working hours with an increasing number of children, since they assume the role of the bread-winner within the household. In the Continental and the Mediterranean countries, individuals having a full-time employed spouse show a higher transition probability to part-time employment compared to those with an inactive or unemployed spouse in the household, whereas the transition probability is uncorrelated with the partner's employment state in the other country groups.

Figure 4.7 **Country fixed effects of full-time to part-time transitions** 



Source: EU-SILC, own calculations. - Notes: Deviation from Austria; marginal effects.

Almost every country dummy is statistically significant and confirms the results of the descriptive analysis (see Table A.4.7 in the appendix). From Figure 4.7 it becomes obvious that the probability of changing to part-time employment is the highest in the Continental countries (except for France), while it is the lowest in Portugal and the CEE countries. Separate

regressions for men and women yield quite similar results. However, differences between men and women can be observed for Luxembourg, where female transition probabilities are higher and male transition probabilities are lower compared to Austria.

When extending the model by the individual's work experience, an indicator on the health status of the respondent, the degree of urbanisation, the individual's real hourly wage, and the individual's occupation, the regression sample is somewhat reduced since these variables are not fully covered for all country/year combinations. However, the estimated marginal effects of the baseline model do not differ much. For both men and women, working experience is negatively correlated with the transition probability to part-time employment. Moreover, individuals with serious physical or mental health problems are more likely to change to part-time employment compared to healthy ones. For both men and women, the real hourly wage is negatively correlated with the probability of changing from full-time to part-time employment, while the degree of urbanisation is uncorrelated with the transition probability. Compared to men being employed as legislators, senior officials and managers, those working as professionals as well as those working as service workers and shop and market sales workers show a higher probability of changing to part-time employment. The other occupational dummies are not statistically significant.

Using the calendar data to calculate monthly transition rates from full-time to part-time employment (see Table A.4.9 in the appendix), the results do not differ much from those for the yearly transitions. However, some coefficients gain significance. For example, compared to young women, women aged 55 to 65 are found to have a lower probability of changing to part-time employment from one month to another. Moreover, women living with a part-time employed partner show a higher transition rate into part-time employment compared to those with an unemployed or inactive partner. Regarding the country dummies, the highest monthly transition rates are found for Sweden, the UK, and Norway. Hence, whereas the Continental countries show the highest yearly transition rates, these are the countries that are characterized by a higher labour market fluctuation. As for the yearly transition rates, the lowest monthly transition rates are found for the CEE countries, especially the Czech Republic, Romania, and Slovakia. Lastly, it becomes obvious that labour market transitions are most likely from December to January but significantly lower in all other months.

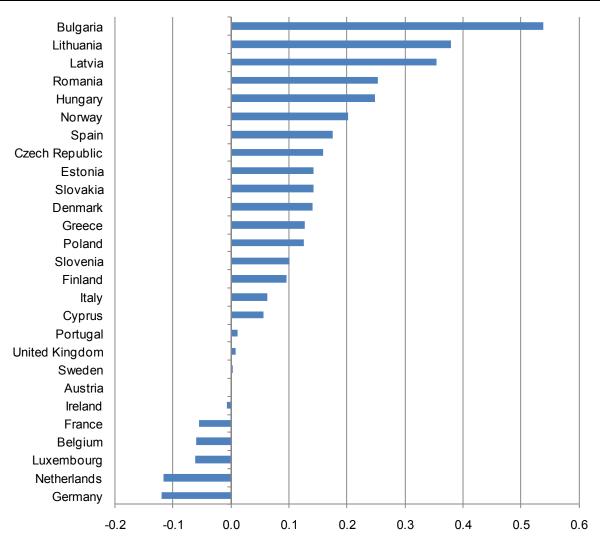
#### Transitions from part-time to full-time employment

Besides the determinants being correlated with changes from full-time to part-time employment, the factors being associated with transitions from part-time to full-time employment are investigated. This analysis can give some insights for whom part-time employment can be a stepping stone into full-time employment. Men are more likely to transit from part-time to full-time employment than women in all country groups (see Table A.4.10 and Table A.4.11 in the appendix), which is in line with the findings of Buddelmeyer et al. (2005) and OECD (2010). Moreover, the individuals' transition probability is decreasing with age and increasing with the skill level. However, the latter is not the case for men. While – compared to single women – married women show a lower transition probability to full-time employment, cohabiting men show a higher transition probability compared to single ones. While the number of children between 5 and 14 years is negatively correlated with women's probability of becoming full-time employed, the presence of children is uncorrelated with men's transition probability. In the UK and Ireland, the transition probability is furthermore positively correlated with the number of elderly in the household. Lastly, women having a full-time employed

spouse show a lower transition probability compared to those with an inactive or unemployed spouse in the household. Overall, female transition rates are more linked to individual characteristics than male transition rates, confirming the finding of part-time employment primarily being a female phenomenon. Moreover, this finding is in accordance with OECD (2010), suggesting that notably for women, having young children, living in a relationship, and having a low educational attainment reduce the probability of moving to full-time employment.

Again, almost all of the country dummies are significant compared to the level in Austria (see Table A.4.10 in the appendix). From Figure 4.8 it becomes obvious that the probability of changing to full-time employment is the highest in Norway and the countries belonging to Central and Eastern Europe (especially Bulgaria, Latvia, and Lithuania), while it is the lowest in the Continental countries. Separate regressions for men and women reveal large differences in the country-specific transition rates between men and women. In Cyprus, the Czech Republic, Denmark, Estonia, Finland, Ireland, Italy, Poland, Portugal, Slovakia, Slovenia and Sweden women have a higher transition probability compared to Austria, while men's transition probability is lower in these countries.

Figure 4.8 **Country fixed effects of part-time to full-time transitions** 



Source: EU-SILC, own calculations. - Notes: Deviation from Austria; marginal effects.

Extending the model by the additional regressors, women's work experience appears to be negatively correlated with their transition probability to full-time employment, while this is not the case for men. Moreover, having serious health problems is negatively associated with women's probability of becoming full-time employed, although the respective coefficient is only significant at the 10 per cent level for men. The individual's real hourly wage, however, is positively correlated with both sexes' transition probability. Referring to different occupations, legislators, senior officials and managers, and plant and machine operators and assemblers have the highest transition probability to full-time employment, while clerks and those employed in elementary occupations have the lowest ones.

The results of the estimations for the monthly transition rates (see Table A.4.12 in the appendix) hardly differ from those for the yearly transition rates. Living with a partner is uncorrelated with the individual's probability of changing to full-time employment from one month to another, while it was found to be positively correlated with men's yearly transition probability. As for the yearly transition rates, workers in the CEE countries are most likely to transit to full-time employment from one month to another. In contrast, the Continental countries and Ireland show the lowest transition rates. Again, labour market transitions are most likely from December to January compared to the other months.

# Two-year-transitions to part-time employment

Up to now, we have only investigated the transitions between part-time and full-time employment. In order to gain insights into the stepping stone function of part-time employment, we further look at the persistence of transitions into full-time employment by analysing twoyear transitions from part-time to full-time employment. Conditional on a transition between year t-2 and year t-1 from part-time to full-time employment, we investigate if the worker is still in full-time employment in year t. The results of the logit estimation (see Table A.4.13 in the appendix) reveal that men are significantly more likely to stay in full-time employment than women. Moreover, compared to medium-skilled men, low-skilled men are less likely to stay in full-time employment. For women, the number of elderly in the household is negatively correlated with the probability of being in full-time employment over a two-year-period. Finally, women having a full-time employed partner are less likely to be full-time employed compared to those with an unemployed/inactive partner, while men having a part-time employed partner are more likely to be full-time employed. The other individual and household characteristics are uncorrelated with the probability of staying in full-time employment permanently. However, since the sample is restricted to individuals who had a transition to fulltime employment in the previous year, the results rest upon regressions with a limited number of observations.

The estimated country fixed effects reveal that workers in France, Portugal, the Czech Republic, and Greece are most likely to stay in full-time employment, whereas workers in the Netherlands, the UK, and Denmark are least likely to stay. Overall, the probability of staying in full-time employment increased from 2006 to 2008.

#### Added worker effect

Up to this point, changes in individual labour supply have been estimated assuming that the spouse's labour supply is fixed. An issue that has not been studied is how one spouse reacts to changes in his / her partner's labour supply. One strain of literature on this topic addresses the "added worker effect" (cf. Ashenfelter 1980, Lundberg 1985). The term "added worker

effect" usually refers to a situation in which married women, whose husbands have become unemployed, increase their labour supply temporarily. Due to the transitory reduction in family income, families may be constrained in liquidity or face fixed consumption commitments and may be unable to smooth consumption over the husband's unemployment spell (Mincer 1962, Lundberg 1985).

In the following analysis, we want to test whether the "added worker effect" holds. In particular, we investigate whether a change in one spouse's labour market situation has a significant influence on the other spouse's labour supply, i.e. the amount of hours worked by this spouse. That is to say, we do not constrain our analysis to the labour supply of women, but investigate this topic for both partners within the household. We conduct two analyses. First, we restrict the sample to individuals having a partner who was employed in year t-1 and analyse whether individuals increase (or decrease) their working hours from year t-1 to year t when the spouse becomes unemployed in year t. However, as it is plausible that individuals do not react directly to changes in the partner's labour supply but adjust their working hours with some time delay, we conduct a second analysis. In this analysis, we only include individuals whose partners are employed in year t-2 and include the partners' labour market states in year t-1 as an explanatory variable. Hence in this specification, we analyse individual labour supply one year after the partner having become unemployed and inactive, respectively.

When including the partner's employment state in the current year as an explanatory variable (see Table A.4.14 in the appendix), it becomes obvious that the partner's employment state is uncorrelated with the individual's difference in working hours from year t-1 to year t. Hence, individuals do not react (directly) to changes in spouse's labour supply. When including the partner's employment state in the previous year, a different picture emerges (see Table A.4.14 in the appendix). While the spouse becoming inactive or unemployed in year t-1 is uncorrelated with changes in women's labour supply, men significantly decrease their working hours when their wife becomes unemployed. This result is contrary to the "added worker hypothesis", which suggests an increase in (female) labour supply due to the partner becoming unemployed. This result can be due to some unobserved factors that influence both, the transition to unemployment and the reduction in working hours.

Since one can assume that the relationship between the spouse's labour supply differs by country, we conduct the same analysis separately for each country group (see Tables A.4.15 and A.4.16 in the appendix). The results show that in the UK and Ireland, women increase their working hours significantly when their spouse becomes unemployed. In the other country groups, however, an "added worker effect" cannot be detected. This finding is in contrast to Bentolila and Ichino (2000), who find that in Spain and Italy women are more likely to start working in case of unemployment of the male head than in Germany, Britain, and the US. As a result, job losses of male household heads are associated with smaller consumption losses in Spanish and Italian households compared to the other countries. McGinnity (2002) furthermore finds that in Britain women are less likely to enter employment when their husband becomes unemployed than if he was employed. For Germany, she finds a contrary effect. There, a wife is more likely to enter employment when her husband becomes unemployed than when he was employed.

In addition to the "added worker effect" for the UK and Ireland, we find that in the Scandinavian countries and the UK and Ireland the husband becoming inactive is associated with his wife decreasing her working hours, too, while it is associated with an increase in female working hours in the Mediterranean countries. The latter effect is consistent with Prieto-Rodriguez and Rodriguez-Gutierrez (2003), who find that the husband being inactive appears to stimulate the woman's labour supply in Spain and Portugal, but this supply is not affected by her husband being unemployed.

Regarding male labour supply, it becomes obvious that the negative correlation between the wife becoming unemployed and her husband's working hours is driven by the Mediterranean countries and the UK and Ireland, while no significant correlation is found for the other country groups. Moreover, men with a wife becoming inactive are found to increase their working hours significantly in the CEE countries and the UK and Ireland. This finding is in line with previous studies that found that parenthood strengthens a traditional division of labour with women decreasing their working hours or withdrawing from the labour market and men increasing their working hours (cf. Hallberg and Klevmarken 2003 and Sayer 2005). However, a positive correlation between the number of small children in the household and the difference in male working hours is only found for the UK and Ireland.

#### Simultaneous estimation of household labour supply

Up to this point, spouse's labour supply has been analysed individually for women and men. However, the literature concentrating on collective household labour supply (cf. McElroy and Horney 1981, Chiappori 1988, Fortin and Lacroix 1997) suggests that spouses determine simultaneously how many hours to supply taking into account their own and their partner's characteristics. By estimating both partners' labour supply simultaneously, we allow the partners' labour supply to be interdependent. Within the household, such interdependency between the labour supply equations may arise from unobserved household specific correlations in preferences (i.e. positive assortative mating in regard to a high preference for market work of both spouses). Since we do not only include employed individuals in the analysis, but all individuals of working age, a large fraction of zero working hours for those not employed is observed. In order to take this feature into account, we estimate a Tobit model (see Box 4.1 for further explanation).

As mentioned before, the individual's labour supply is expected to be a function of his partner's labour supply. However, the partner's labour supply is not exogenously determined, but itself a choice variable. Therefore, including the partner's actual working hours as explanatory variable would induce an endogeneity problem. Hence, in order to identify causal effects of changes in the partner's working hours, we need to search for exogenous variations in the partner's labour supply. That is, to estimate female (male) labour supply, one has to find variables that affect male (female) labour supply, but do not affect female (male) labour supply through any other channel than through male (female) labour supply. In order to identify the labour supply equations, we assume that the individual's age and skill level affect his own working hours but do not have a direct impact on his partner's working hours. Hence, the partner's age and education serve as instruments to predict spousal labour supply (the estimation results are not discussed here, but are displayed in Table A.4.17 in the appendix). Instead of the spouse's actual working hours, these predicted values are then included as explanatory variables in the labour supply estimations. <sup>19</sup>

<sup>&</sup>lt;sup>19</sup> In order to estimate simultaneous-equation models with limited dependent variables and endogenous regressors, different methods have been proposed; see e.g. Amemiya (1978, 1979), Heckman (1978), Blundell and Smith (1989). Here, a two-stage procedure developed by Nelson and Olson (1978) is applied.

#### Box 4.1

#### The Tobit Model

The Tobit model is an econometric model which can be used to analyse the relationship between a non-negative variable and a set of explanatory variables. An example of such a variable is the number of hours worked in the economy, which takes on positive values for someone working, but is zero for someone who is not working.

The Tobit-model can be described by a latent variable:

$$\mathbf{v}_{i}^{\star} = \mathbf{x}_{i}^{\prime} \boldsymbol{\beta} + \boldsymbol{\varepsilon}_{i}$$

where 
$$\varepsilon_i \sim N(0, \sigma^2)$$
.

This model is also called a censored regression model, because it is not possible to observe  $y^*$  if it is below zero. Therefore, only the variable y can be observed:

$$y_i = \begin{cases} y_i^* & \text{if } y_i^* > 0 \\ 0 & \text{if } y_i^* \le 0 \end{cases}$$

The Tobit model takes into account the special structure of the variable under investigation.

The reported coefficient  $\beta_1$  can be interpreted in the following way: an increase of input variable  $x_1$  leads to an increase in the outcome variable by  $\beta_1$  units. In the case of hours that are included as log variables, the coefficients can be interpreted that an increase of variable  $x_1$  by one unit leads to an increase in the outcome variable by  $\beta_1$  per cent. Is  $x_1$  a dummy/ indicator variable, it means that if  $x_1$  changes from 0 to 1 that leads to an increase of  $\beta_1$  units/per cent of the outcome variable.

The results of these estimations (see Table A.4.18 in the appendix) suggest that women raise their working hours with increasing working hours of their partner. This finding is in line with the literature (cf. Bloemen and Stancanelli 2008 for France, Bredtmann 2010 for Germany) and might partly be explained by assortative mating, i.e. individuals with a high labour market potential cohabit with individuals also having a high labour market potential. While we control for a variety of individual characteristics, especially the highest level of education, there might exist unobserved factors (e.g. an individual's preference for either market or non-market work) that influence both the individual's labour market potential as well as the kind of spouse that is chosen.

For men, individual labour supply is also found to be dependent on the partner's labour supply. With an increase in their wives' working hours, men are found to work more hours in the market. Empirical evidence on this issue is mixed. On the one hand, this finding is in accordance with the assortative mating argument. Moreover, it is consistent with the findings of Hamermesh (2002), who provides evidence that couples attempt to synchronise their work schedules in order to increase their joint leisure time. In contrast, Bredtmann (2010) finds that men's time allocated to market (and non-market) work is unaffected by changes in their wife's labour supply. The correlations between the other control variables and individual labour supply meet the expectations and are therefore not further discussed here.

# 4.3.2 Econometric analysis of temporary employment

In the following econometric analysis, we first investigate the factors that are correlated with the transitions between temporary and permanent employment estimating logit models. The dependent variable takes value 1 if a change from year t-1 to year t occurred and 0 otherwise. Furthermore, we investigate in more depth the stepping stone function of temporary employment, i.e. we analyse whether individuals that (re-)enter the labour market taking a

temporary job differ from those having a permanent job in regard to their future working career.

Transitions from permanent to temporary employment

In the Scandinavian countries, male employees have a lower probability of changing from permanent to temporary employment than female employees, while the respective coefficient is not statistically different from zero for the other country groups (see Table A.4.19 in the appendix). For both sexes, the transition probability is decreasing with age (see Table A.4.20 in the appendix) and this relationship holds true for all country groups. This finding is in contrast to Casquel and Conyat (2004) for Spain and Gagliarducci (2005) for Italy. Moreover, married individuals have a higher probability of becoming temporarily employed than singles, while cohabiting individuals do not differ from singles.

Concerning the skill level, the results show that the higher the individual's educational level, the lower is his probability of changing to temporary employment from one year to another. However, this effect is statistically significant for the Mediterranean and the CEE countries only. Whereas the number of children younger than 5 in the household is positively correlated with the transition probability for both sexes, the number of children between 5 and 14 years is positively correlated with women's transition probability only. For both, men and women, the number of elderly in the household is negatively correlated with the probability of changing to temporary employment. However, the respective coefficients are not statistically significant for Continental Europe and the Scandinavian as well as the CEE countries.

Concerning the country dummies, almost all countries differ from Austria regarding their transition rates to temporary employment (exceptions are Italy, Lithuania, Portugal, and Sweden). Figure 4.9 shows that workers in Slovakia, Spain, and Poland have the highest transition rates, while workers in the Continental and Scandinavian countries display the lowest ones. Regarding the separate regressions for men and women, it becomes obvious that Cyprus, Italy, the Netherlands, Norway and Sweden are characterized by high female but low male transition rates, while the opposite is true for Latvia.

The extended model with additional regressors shows that the individual work experience is negatively correlated with the transition probability to temporary employment for both sexes. Moreover, men having serious health problems show a higher probability of changing to temporary employment, compared to men without health problems. For women, the transition probability is significantly higher in thinly populated areas, while the respective coefficient is not statistically significant for men. For both sexes, the individual's hourly wage is negatively associated with his transition probability to temporary employment. From the different occupations, skilled agricultural and fishery workers and workers in elementary occupations show the highest transition probabilities to temporary employment, while technicians and associate professionals as well as clerks show the lowest ones. Regarding the separate regressions for men and women, it becomes obvious that female service workers have a higher transition probability than female legislators, senior officials and managers, while male service workers have a lower transition rate than the reference group.

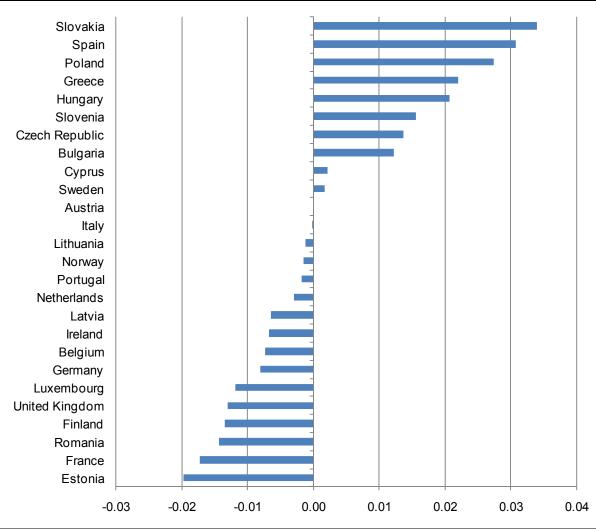


Figure 4.9 **Country fixed effects of permanent to temporary transitions** 

Source: EU-SILC, own calculations. - Notes: Deviation from Austria; marginal effects.

# Transitions from temporary to permanent employment

Besides the determinants being correlated with changes from permanent to temporary employment, the factors inducing transitions from temporary to permanent employment are of particular interest, since they shed light on whether temporary employment can be a stepping stone into permanent employment (see Tables A.4.21 and A.4.22 in the appendix). While in CEE countries, men show a higher probability of changing from temporary to permanent employment compared to women, there exist no gender differences in transition probabilities in the other country groups. This finding is in line with de Graaf-Zijl et al. (2011) for the Netherlands and Göbel and Verhofstadt (2008) for Flanders who do not observe differences between men and women regarding the transition probability from temporary to permanent employment. In the CEE countries and the UK and Ireland, older workers are the least likely to transit to permanent employment, while they are most likely to transit in the Mediterranean countries. This finding is in accordance with Eurostat (2010), finding that in Spain and Italy (as well as Slovenia and Finland) older workers show the highest transition rates into perma-

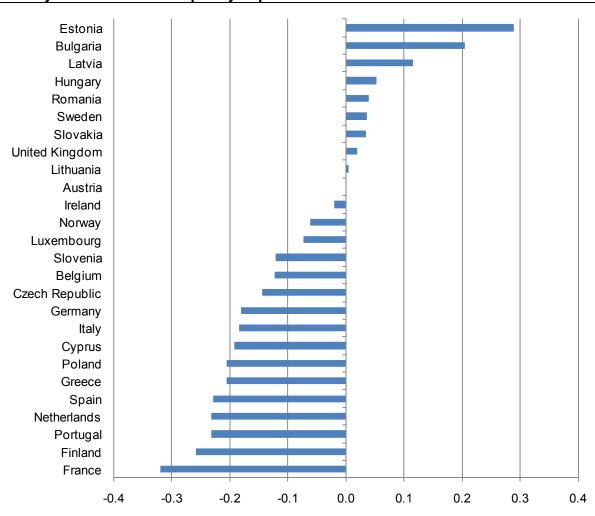


Figure 4.10 **Country fixed effects of temporary to permanent transitions** 

Source: EU-SILC, own calculations. – Notes: Deviation from Austria; marginal effects.

nent employment. Although younger employees are much more likely to hold a temporary contract compared to older ones, conditional on being temporarily employed their transition probability to permanent employment does not differ from that of older workers in most country groups or is even lower in Mediterranean countries.

Women who are married have a lower probability of becoming permanently employed compared to single women, whereas cohabiting men show a higher transition rate compared to single men. Moreover, low-skilled men are less likely to change to permanent employment than medium-skilled men, while for women the skill level is uncorrelated with the transition rate to permanent employment. The negative association between the individual's skill level and his probability of changing to permanent employment is most pronounced in Mediterranean countries, which is consistent with the findings of OECD (2002c). In regard to the household indicators, the number of children younger than 5 years is negatively correlated with the transition probability in CEE countries. In both groups, Mediterranean countries and the UK and Ireland, the number of children aged 5 to 14 years in the household is negatively associated with the transition probability.

All country dummies (except for Lithuania, Romania, and the UK) are statistically different from zero, but differ in their sign and magnitude (see Table A.4.21 in the appendix). From Figure 4.10 it is obvious that employees in CEE countries have the highest probability of changing from temporary to permanent employment. In particular, Estonia has a significantly higher transition rate than every other country, followed by Latvia and Hungary. The lowest transition rates can be observed for France, Finland, Portugal, and the Netherlands. Overall, the gender-specific country fixed effects are similar to those for the whole sample.

When extending the model by additional explanatories, men's work experience is found to be positively correlated with the transition probability (though with a decreasing impact), while it is uncorrelated with women's transition rates. While for women the transition probability is uncorrelated with the hourly wage, it is positively correlated with men's wages. Further differences between men and women are visible concerning the occupation dummies. While women working as legislators, senior officials and managers show the highest transition rates compared to all other female employees, male legislators, senior officials and managers show the lowest ones.

Two-year-transitions from temporary to permanent employment

In order to gain some first insights into the stepping stone function of temporary employment, we look at the persistence of transitions into permanent employment by analysing two-year transitions from temporary to permanent employment. We investigate if the worker is still in permanent employment in year t, given that he made a transition from temporary to permanent employment between year t-2 and year t-1. The results of the logit estimation (see Table A.4.23 in the appendix) reveal that compared to young men, middle-aged men are more likely to stay in permanent employment once they have changed from temporary to permanent employment. Moreover, high-skilled men show a significantly higher probability of being full-time employed than medium-skilled workers. For women, however, neither their age nor their skill level is correlated with their probability of staying permanently employed. Moreover, none of the household characteristics is associated with the likelihood of being full-time employed. However, similar to the analysis of two-year transitions from part-time to full-time employment, we end up with only a limited number of employees included in the sample, of whom only a small fraction returns to temporary employment (see Table A.4.5 in the appendix).

The probability of staying in permanent employment is the highest in France and Belgium, followed by the group of Italy, Finland, Ireland, and Slovenia. In contrast, the lowest probabilities are found for Sweden, Slovakia, Cyprus, and Spain.

The stepping stone function of temporary employment

Our goal in this analysis is to find out what happens to labour market entrants or unemployed workers who (re-)enter the labour market in a temporary job. Are these jobs a stepping stone into permanent employment, are those workers trapped in temporary employment, or are these dead end jobs that do not increase the employment probability at all? Hence, the question arises if those workers are in the long-run worse off than those who do not take up a temporary job, i.e. those who receive a permanent contract, or who become/stay unemployed.

We therefore analyse two different groups of workers. First, young workers who were in education in the year they are observed in the data set for the first time, and second, those who are unemployed in the first year they are observed in the data. To identify young individuals in education we rely on the calendar data for all persons between 15 and 30 years old. The analysis is restricted to individuals who have been in education for at least three months in the year before the first interview and who were employed in the year of the first interview. For those workers, the employment status in the last observed year is analysed applying a multinomial logit model. When estimating this model, the type of employment at the first interview is added as regressor to obtain some evidence on the medium-run effects of the first job.

The results suggest that for all workers the probability to be in permanent employment and self-employment is the highest in the fourth year after education, while the probability of temporary employment decreases over time (see Table A.4.24 in the appendix). Regarding the first job after education, those who entered the labour market with a part-time and/or a temporary job are less likely to be permanently employed in the last observed year than those who entered with a permanent full-time job. This result indicates that temporarily employed workers are disadvantaged in the medium-term regarding the probability of permanent employment. Moreover, young individuals with a first job that is covered by a temporary contract are more likely to be temporarily employed a few years later than those with a first job that is full-time and permanent. The same is true for those who enter the labour market in part-time employment. They are also more likely to be in inactivity, while those who had a temporary contract at the beginning of their career are more likely to be unemployed. These results indicate that temporary as well as part-time jobs are to an extent dead-end jobs that increase the probability of unemployment and inactivity, respectively. However, we cannot control for unobservables like motivation, soft skills, and preferences. Therefore, the observed differences could also be due to the fact that those in temporary employment have lower abilities and those in part-time employment have higher preferences for leisure or homework than those in permanent full-time employment.

In the preceding analysis, only those young individuals who enter the labour market in employment are analysed. However, it is possible that they do not find a job at all and are unemployed in the first year after education. We therefore include all young individuals that are in education before the first interview and are (self-) employed or unemployed at the first interview (see Table A.4.25 in the appendix). The estimated results suggest that those who are unemployed in the first year are also less likely to be temporarily employed in the last year than those with a permanent contract. However, there is no significant difference between unemployed and temporarily employed individuals. Regarding the probability of temporary employment and unemployment in the last year of observation, there are significant differences between young individuals who start with a temporary job and young individuals who start with unemployment. Those with a temporary contract are more likely to stay in temporary employment and are therefore less likely to be unemployed. Overall, it can be summed up that workers who enter temporary employment from education are better off than those who enter into unemployment, but worse off than those who enter into permanent employment. The results are in line with Berton, Devicienti and Pacelli (2009) who find that for Italian labour market entrants there is a stepping stone function of temporary employment into permanent employment compared to unemployment. Our results suggest that there is no stepping stone function of temporary employment and that they are no dead ends. Indeed, there seems to be some trap in temporary employment of labour market entrants because they have a higher probability to be in temporary employment than other workers.

A similar analysis like the above-mentioned analysis of labour market entrants is done for unemployed individuals who re-enter the labour market. In this analysis only those with at least two months of unemployment in the year before the first interview are taken into account. Similarly to the analysis presented above, only those who are employed in the first year are observed. The results for this setting suggest that workers with temporary employment after unemployment have a 41 percentage points lower probability to be permanently employed in the subsequent years than workers that re-enter the labour market with a permanent full-time job (see Table A.4.26 in the appendix). Furthermore, they are more likely to be temporarily employed. Regarding the probability of unemployment, those with a temporary full-time job are more at risk than those with a permanent full-time job. By contrast, workers who re-enter the labour market with a permanent part-time job are more likely to become inactive. This result suggests that there is some self-selection into part-time jobs after unemployment. Unfortunately, the length of unemployment as well as the preceding labour market status cannot be observed. However, the results provide some evidence against the stepping stone hypothesis of temporary and part-time employment, but also some evidence that there is a trap in temporary employment at least in the first years. However, those who stay in unemployment are not observed in this analysis. Hagen (2003) finds that the future employment probability of unemployed that take up a fixed-term job is higher than of those who stay unemployed.

# 4.3.3 Transitions between the employment states FP, FT, PP, and PT

Having presented the econometric evidence with respect to part-time employment and temporary employment, we now proceed with the econometric analysis of transitions between the combinations of these employment states, i.e. the transitions between full-time permanent employment (FP), full-time temporary employment (FT), part-time permanent employment (PP), and part-time temporary employment (PT). For this purpose, multinomial logit models containing the regressors of the baseline specification are estimated.

Regarding the transitions from permanent full-time employment (see Table A.4.27 in the appendix), men are found to be 3 percentage points more likely to stay in permanent full-time employment than women, while they are 2.9 percentage points (0.2 percentage points) less likely to change to permanent and temporary part-time employment, respectively. Compared to young workers, middle-aged workers have a significantly higher probability of staying in permanent full-time employment. In contrast, both middle-aged and older workers show a lower probability of changing to temporary (part-time and full-time) employment. Employees being married are more likely to stay in permanent full-time employment, but less likely to change to temporary full-time and part-time employment, while those living with a partner do not differ from singles. The individuals' skill level is positively correlated with the probability of staying in permanent full-time employment, while it is negatively correlated with the transition probability to temporary and permanent part-time employment. Whereas the number of children of both age groups is negatively correlated with the likelihood of staying in permanent full-time employment, it is positively correlated with the probability of changing to permanent part-time employment. In contrast, the number of elderly in the household increases the likelihood of staying in permanent full-time employment, while it lowers the probability of becoming temporary full-time or temporary part-time employed. Compared to employees with an inactive partner, those with a full-time employed partner show a higher probability of changing to permanent part-time employment. On the other hand, having a part-time employed partner is negatively correlated with the transition probability to temporary full-time employment.

Regarding the coefficients of the country dummies, it becomes obvious that the likelihood of staying in permanent full-time employment is the highest for workers in Estonia, France, Romania, and Finland, while (except for Romania) these are also the countries that show the lowest transition probabilities to temporary full-time employment. Accordingly, workers from Slovakia, Hungary, and Poland have the lowest probability of staying in permanent full-time employment, but exhibit the highest probability of changing to temporary full-time employment. The likelihood of becoming permanently part-time employed is the highest in the Continental countries, especially in Germany and Luxembourg. Changes from permanent full-time to temporary part-time employment are by far the least likely in all countries. However, the transition rates are the highest for Greece, Spain, Sweden, and Bulgaria.

The estimation results for the transitions from temporary full-time employment (see Table A.4.28 in the appendix) reveal that men are more likely to become permanently full-time employed, but less likely to change to (permanent or temporary) part-time employment than women. Compared to young workers, workers aged between 55 and 65 years have a higher probability of changing to permanent part-time employment. Beyond this, the individual's age group is uncorrelated with the transition from temporary full-time employment, as is the individual's marital status. Low-skilled workers are significantly more likely to stay in temporary full-time employment, but less likely to become permanently full-time employed than medium-skilled workers. Moreover, changing to permanent part-time employment is the least likely for high-skilled workers. As for the household characteristics, the number of elderly in the household is positively correlated with the probability of changing to temporary part-time employment. Moreover, compared to individuals with an unemployed/inactive partner, individuals with an (part-time or full-time) employed spouse are significantly less likely to stay in temporary full-time employment, while the likelihood of changing to permanent full-time employment is higher for those living with a part-time employed partner.

While workers in France, the Netherlands, Finland, and Portugal show the highest probability of staying in temporary full-time employment, they show the lowest probability of changing to permanent full-time employment. In contrast, the countries belonging to Central and Eastern Europe (especially Estonia and Bulgaria) are the ones exhibiting the lowest probability of staying in temporary full-time employment, while they show the highest transition rates to permanent full-time employment. Workers from Sweden, Bulgaria, and Ireland transit to permanent part-time work most frequently, while workers in Romania and Poland are the least likely to change to this employment state. The highest transition rates to temporary part-time employment are observed for Sweden, Ireland, and Belgium, whereas Romania, Portugal and Cyprus show the lowest ones.

The results for the transitions from permanent part-time employment (see Table 4.29 in the appendix) show that men are less likely to stay in this employment state, but more likely to change to (permanent and temporary) full-time employment than women. Compared to younger workers, middle-aged and older workers show a higher probability of staying in permanent part-time employment, but a lower probability of changing to any other employment

state. Married individuals are more likely to stay in permanent part-time employment than singles. In contrast, individuals living with a partner are less likely to stay in permanent part-time employment, but more likely to change to permanent full-time employment. The probability of changing to permanent full-time employment is further increasing with the skill level, while the transition rates to the other employment states are not associated with the educational degree. The number of children as well as the number of elderly in the household is not correlated with transitions from permanent part-time employment. Finally, individuals having a full-time employed partner are more likely to stay in permanent part-time employment, but less likely to transit to permanent full-time employment, compared to those with an inactive/unemployed partner.

In the countries belonging to Continental Europe, workers are most likely to stay in permanent part-time employment, while workers in the CEE countries and Greece are least likely to stay. The probability of changing to temporary part-time employment is by far the highest in Slovakia and Greece, whereas Romania and Bulgaria are characterized by particularly low transition rates to temporary part-time employment. Transitions to permanent full-time employment are most frequent in the CEE countries (Bulgaria, Latvia, and Lithuania) and least frequent in Germany and the Netherlands. Workers in Bulgaria and Poland show the highest probability of changing to temporary full-time employment, while this probability is the lowest in Romania, Germany, and the United Kingdom.

Concerning the estimation results for the transitions from temporary part-time employment (see Table A.4.30 in the appendix), it becomes obvious that men are less likely to stay in temporary part-time employment or change to permanent part-time employment than women, but more likely to become (permanently or temporarily) full-time employed. Compared to younger workers, both middle-aged and older workers have a lower probability of changing to temporary full-time employment. Older workers are also more likely to stay in temporary part-time employment and less likely to change to permanent full-time employment. Cohabiting Individuals have a significantly lower probability of changing to permanent full-time employment than singles. Beyond that, the individual's marital status is uncorrelated with his transitions from temporary part-time employment. Low-skilled (high-skilled) workers are significantly less (more) likely to become permanently (temporary) full-time employed than medium-skilled workers. From the household characteristics, the number of children between 5 and 14 years in the household is positively correlated with the employees' likelihood of staying in temporary part-time employment and negatively correlated with the probability of changing to (temporary and permanent) full-time employment. Moreover, individuals with a part-time employed partner are significantly less likely to become permanently part-time employed than those with an unemployed/inactive partner.

Regarding the country fixed effects, it can be seen that in France employees are by far the most likely to stay in temporary part-time employment, but the least likely to transit to permanent part-time employment. Other countries with high probabilities of staying in temporary part-time employment are Germany, the Netherlands, and Portugal, while in Bulgaria and Lithuania the probability of staying in temporary part-time employment is by far the lowest. Transitions to permanent part-time employment are significantly more frequent in Sweden and Austria, compared to the other countries, while workers in France, Romania, and Spain are the least likely to change to permanent part-time employment. Workers in Bulgaria, Estonia, and Romania show by far the highest probability of changing to permanent full-time em-

ployment, while they show the lowest probability of changing to temporary full-time employment. Countries characterised by low transition rates to permanent full-time employment are Portugal, Finland, and France. Compared to the other countries, transition rates to temporary full-time employment are significantly higher in Slovenia and Lithuania, followed by Spain and Finland.

The joint analysis of part-time/fulltime employment and temporary/permanent employment did not yield many new insights into the question which worker groups transit between these employment states. Transitions between part-time and full-time employment are most likely for women (with small children), while transitions between temporary and permanent employment are most likely for young and/or unskilled workers. However, for the "cross-transition" between these employment states, no clear picture emerges. Only a small percentage of employees transits between temporary part-time and permanent full-time employment and there are hardly any characteristics that identify this worker group. For these reasons, the joint analysis of part-time/fulltime employment and temporary/permanent employment is not conducted separately for each country group.

# 4.4 Conclusion

One of the targets of the European Union for 2020 is to achieve an employment rate of 75%. To reach this target the number of unemployed workers and inactive persons has to be reduced. Possible work arrangements to decrease these numbers could be part-time and temporary labour contracts. Part-time employment can especially increase participation of women while temporary employment can increase the employment probability of the unemployed and labour market entrants. Both types of employment have gained importance during the last decade. In this chapter we analyse which worker groups take up part-time and temporary jobs, and whether these jobs can be a stepping-stone into permanent and full-time employment, respectively.

The share of part-time employed workers strongly differs by country. Overall, the share of part-time employment is the highest in Continental Europe, while the countries belonging to Central and Eastern Europe show the lowest part-time rates. Besides the differences between countries, large gender differences become apparent. In all Member States, the share of part-time employed workers is higher among women than among men. Furthermore, there are indicators for the existence of fixed gender roles in regard to family responsibilities. When part-time employed, men are more likely to transit to full-time employment than women in all country groups. Looking at the persistence of transitions into full-time employment, men are found to be significantly more likely to stay in full-time employment once they have changed from part-time to full-time employment than women. However, neither the individual's marital status nor the number of children in the household are correlated with the probability of staying full-time employed.

Concerning the differences in the transition rates between the countries, the probability of changing to part-time employment is the highest in the Continental countries (except for France), while it is the lowest in Portugal and the CEE countries. Consistently, the CEE countries show the highest transition rates into full-time employment, while the lowest transition rates are found for the Continental countries.

The analysis of the joint labour supply of spouses within one household reveals that men increase their working hours when their wife becomes unemployed. Furthermore, the results

suggest that both men and women raise their working hours with increasing working hours of their partner.

In the second part of this task, we analyse the features of temporary employment in the European Union. Again, large differences in the share of temporary workers across the Member States can be observed. Temporary employment is most frequent in Mediterranean countries, while it is least frequent in Central and Eastern Europe. Only a small percentage of workers changes from permanent to temporary employment, while changes from temporary to permanent employment are more frequent. Although younger employees are much more likely to hold a temporary contract compared to older ones, their transition probability into permanent employment is equal or even lower in some country groups. In all countries, low-skilled men are less likely to change to permanent employment than medium-skilled men, while this does not hold true for women.

Employees in CEE countries, particularly workers in Estonia, have the highest probability of changing from temporary to permanent employment. In contrast, the lowest transition rates are observed for France, Finland, Portugal, and the Netherlands.

Regarding the probability of staying permanently employed, the results show that the correlation between individual characteristics and the likelihood of staying permanently employed is higher for men than for women, while middle-aged and/or high-skilled men are most likely to stay permanently employed. For unemployed workers and young labour market entrants, the first job seems to be decisive for the labour market status two to four years later. Those who enter into employment with a temporary contract are more likely to stay temporarily employed or become unemployed than those who enter with a permanent contract. However, young labour market entrants who start in temporary employment have a higher employment probability than those who enter into unemployment. Therefore, the results suggest that there is a trap in temporary employment and no port of entry into permanent employment. Hence, the results suggest that temporary employment helps to increase employment but also lead to a higher segmentation of the labour market and less job quality for those who enter the labour market with a temporary contract. However, the results can also be driven by unobserved heterogeneity like motivation which cannot be observed in the data.

Finally, we combine the analyses of part-time/full-time and temporary/permanent employment. However, the joint analysis of part-time/fulltime employment and temporary/permanent employment does not yield many new insights into the question which worker groups transit between these employment states.

# 5. Task 4: How to Assess the Quality/Value of Labour Market Transitions

# 5.1 Background and Empirical Strategy

Besides "normal" full-time, permanent employment, more flexible employment types have become increasingly important in all European countries. These employment types are parttime employment and temporary employment, as well as marginal employment. While parttime employment may imply more flexibility in working hours and work-life balance, temporary employment may often be chosen by the worker because no adequate permanent job is available. Temporary jobs, for example, can have disadvantages for the workers, if compared to permanent employment. Workers in temporary jobs are not covered by employment protection at the end of the contract. They are therefore more likely to experience spells of unemployment than workers with permanent contracts. Furthermore, as they change their jobs more frequently, they accumulate less firm-specific human capital than permanent workers. Therefore, career opportunities may be lower. On the other hand, temporary jobs can be a mode of entry into the labour market, and a stepping stone into permanent work (see also the analysis in Chapter 4). Compared to permanent employment, the disadvantages of temporary jobs can potentially result in lower life-time income and life satisfaction compared to permanent employment. However, temporary employment is still likely to be preferable to unemployment, depending on wages, working conditions, and career prospects.

In Chapters 2 and 4, labour market transitions between employment, unemployment, education and inactivity, as well as transitions between different employment states (e.g. temporary and permanent employment) are investigated. These tasks examine the characteristics of the individuals that experience the different transitions. In this task, we analyse the quality of labour market states and the transitions between these states. Therefore, we analyse the outcome of different transitions given that someone makes a transition. The outcome/quality is measured as job security, flexibility, income and health status. In order to do so, we proceed in five steps. In a first step, we introduce a classification for the quality of labour market transitions. In doing so, different labour market states will be distinguished: full-time and part-time work, differentiated into permanent and temporary employment, self-employment, unemployment, education and inactivity. This classification is based on theoretical economic reasoning and takes into account different aspects of labour market states and employment arrangements, such as job security. The second step of the analysis applies this classification of labour market transitions to the transitions actually observed in the data set. This gives an indication of the quality of labour market transitions in the EU-SILC countries.

In a third step, we provide evidence on mobility patterns across Europe by computing a mobility index, the so-called Shorrocks index, from the transition matrices of different countries. This yields insights into the extent of mobility in the EU-SILC countries, without making a statement about the quality of different transitions. In order to capture the quality of labour market transitions, we use additional information about mobility, such as the self-reported reasons of job change.

The fourth step of the analysis introduces another dimension of the quality of labour market transitions. In particular, we use the self-assessed health status contained in the EU-SILC

data in order to construct a second classification of the quality of labour market transitions. The dependent variable is self-assessed health measured with five scores. Furthermore, we investigate the changes in self-assessed health which are measured in three categories: decrease, no change and increase. For both analyses, we first present the complete regression results for the baseline specification with a broad classification of transitions. Then, the models are extended using a more precise differentiation between labour market states. All of these regressions contain the full set of observable characteristics used in the baseline specification. However, only the results for the additional regressors are presented. All time-variant variables refer to year t-1, i.e. they represent the individuals' characteristics before the potential transition to a different employment state.

As explanatory variables, individual socio-demographic characteristics, household attributes as well as job characteristics are used.

The characteristics used in the baseline models are:

- 4. Individual socio-demographic characteristics: gender, age group, marital status, level of education.
- 5. Household characteristics: number of children younger than five years of age living in the household, number of children aged between 5 and 14 living in the household, number of persons aged 65 and older in the household, labour market status of the spouse living in the household.
- 6. Indicators for country and year of observation.

To gain insights into country-specific differences in transition rates, we further estimate the baseline model separately for each country group. In doing so, we assume that the individual behaviour within each country group is the same, but we are able to allow for differences in the individual behaviour between the different country groups. We distinguish between five country groups, which read as follows:

- 6. CEE countries: Bulgaria, Czech Republic, Estonia, Hungary, Lithuania, Latvia, Poland, Romania, Slovenia, and Slovakia.
- 7. Continental countries: Austria, Belgium, France, Germany, Netherlands, and Luxembourg.
- 8. Mediterranean countries: Cyprus, Greece, Italy, Portugal, and Spain.
- 9. Scandinavian countries: Denmark, Finland, Norway, and Sweden.
- 10. Ireland and the United Kingdom.

In a third step, country-specific differences are graphically analysed.

Finally, wage and income levels are an important determinant of the quality of labour market states, and therefore of the quality of the transitions between these labour market states. In the final step of the analysis, we therefore investigate how the wages and incomes are correlated to different labour market states. In order to do so, we estimate a Mincerian wage equation of the logarithm of monthly income and hourly wages. The corresponding estimated coefficients can be interpreted as indicators of the quality of a particular labour market status and the change in quality of a specific transition, respectively.

Since we do not have the variable for type of contract on a monthly basis in the calendar information but only in the yearly data, we base our analysis on the yearly data. The income variable, however, refers to the previous year of the interview. We therefore assign to each month of the previous calendar year a share of the total yearly income (see Chapter 7 for a more detailed description) according to the labour market states reported in the calendar information. The monthly income information which covers the previous calendar year is then matched to the previous interview and therefore the type of contract, the labour market status and the number of hours worked in the previous year. Since we know the quarter of the interview and the labour market states in the calendar data and the current labour market status of interview of the previous year, we can pick exactly the right monthly income, type of contract and number of hours worked that correspond to the month of the previous interview. We also calculate hourly wages by using the information on income and hours worked.

Unfortunately, several countries drop out of the analysis because income information is only available for one wave. For those countries with only one or two waves, we are unable to observe transitions and additionally to assign the monthly income from the calendar information to the lagged yearly information. To take an example, if we observe a country only for two years (e.g. 2006 and 2007), we only have information on income for the year 2006, because the monthly calendar on employment states, as well as the wage and income information, for the year 2007 is retrospectively collected in the 2008 survey only. These countries are Denmark (where we cannot distinguish between a permanent and a temporary contract) and Greece. Germany and Romania drop out of the analysis because only two waves are available. For France, we exclude the year 2005 from the analysis. For Portugal, Italy and Latvia, we additionally exclude the year 2006 from the analysis. Furthermore, we exclude people from the analysis who are in the armed forces, self-employed, in education, retirement or non-activity (such as those in domestic work, disabled or in military service). Furthermore, we drop persons from the analysis with wage and income information that takes extreme values. In detail, we exclude those with monthly income smaller than 30 Euros (565 observations) and higher than 10,000 Euros (802 observations). Additionally, those with hourly wages greater than 60 Euros (751 observations) are deleted. Hourly wage changes from one year to the next greater than 500 per cent (160 observations) and monthly wage changes greater than 450 per cent (218 observations) are also deleted from the analysis. This allows us to exclude certain outliers, which could have otherwise driven our results. Because several countries do not report net wages, we focus on gross wages. The year 2008 cannot be included in the analysis because the income information collected in this wave refers to 2007 only. This leaves us with a dataset that comprises the years 2005 to 2007. The explanatory variables are the same as presented above for the previous step.

#### 5.2 The Quality of Labour Market States

One of the guidelines of the European Employment Strategy is to increase job quality. The EU definition of job quality defines ten categories of quality (European Commission 2008). These are the intrinsic job quality, lifelong learning and career, gender equality, health and safety at work, flexibility and security, inclusion and access to the labour market, work organisation and work-life balance, social dialogue and workers' involvement, diversity and non-discrimination and finally overall economic performance and productivity. In this task, we focus on intrinsic job quality, health, flexibility and security, work organisation and work-life balance and productivity. However, the different indicators are hard to analyse separately

since there is an interaction of all of these points. First of all, we discuss the quality patterns of different labour market states and transitions between these states in detail. We distinguish full-time permanent employment, full-time temporary employment, part-time temporary employment, part-time permanent employment, self-employment, unemployment, education and inactivity. In a first step, different labour market states and the transitions between these states are classified on the basis of job security, career opportunities and flexibility. Working full-time with a permanent contract is the most frequent employment status in the EU-SILC (see Chapter 4). Permanent contracts provide a relatively high degree of job security compared to temporary contracts, because workers in temporary jobs are not covered by employment protection at the end of the contract. They are therefore more likely to experience spells of unemployment than workers with permanent contracts. Furthermore, as they change their jobs more frequently, they accumulate less firm-specific human capital than permanent workers, reducing their career opportunities. In summary, permanent contracts can be given a higher value than temporary contracts.

Employment overall, but especially full-time work can be seen as a restriction for other activities like child care, household and leisure activities. By contrast, a part-time job generates less income which may be not sufficient. However, for secondary earners in a family, part-time employment can be the best solution for income and the family work balance. Dependent on the individual characteristics of the worker, full-time or part-time employment can be the better employment arrangement. Thus, a part-time position might generate less income but cannot be stated to be inferior to a full-time position, as long as both provide the same type of contract (permanent/temporary).

Assessing job security of self-employment is more difficult, because self-employed persons cannot lose their jobs in typical ways of employed workers. Instead, the self-employed might give up their business, because it does not generate enough income or becomes insolvent. Therefore, job security translates into income security, which depends highly on the stability of the own business. Employed workers do not have to bear the business risk alone and are therefore in a more secure situation than self-employed workers. However, self-employment is more flexible for the worker than being employed.

A ranking of self-employment and other employment states may also be possible in terms of job flexibility. Although self-employed workers work 5 hours more compared to the average full-time employee in the EU-SILC, the standard deviation is much higher (around 15 hours compared to 7 hours). Unlike full-time employment, the work-load in self-employment can be chosen more flexibly, being only subject to financial constraints and preferences. Summed up, self-employment might not provide more job security than permanent jobs, but it may provide more flexibility than full-time jobs. Due to the lower job security, we rank it lower than permanent employment.

Compared to the labour market states discussed above, rating of education is more difficult. In the EU-SILC data it comprises pupils, students, persons in further training and individuals engaging in unpaid work experience. All these activities help to augment human capital and help to improve the labour market position of participants. Whether a transition into this status is an improvement or not depends on the reason for the transition into education. For

<sup>&</sup>lt;sup>20</sup> Own calculation using the EU-SILC data: the average number of working hours per week in the EU-SILC for the years 2004-2008 is 40.70 hours (with a standard deviation of 6.97) for full-time employed and 45.18 (with a standard deviation of 14.92) for self-employed workers.

those at the beginning of their career, a transition to education is likely to be positive. This may not be the case when the transition happens to be involuntary in the sense that education becomes necessary because the accumulated human capital depreciates too much to ensure future employment.

The last status to be discussed, inactivity, is a residual category. Inactivity includes individuals in (early) retirement, persons that are permanently disabled or/and unfit to work. It also comprises persons fulfilling domestic tasks and care responsibilities as well as other inactive persons. Movements into inactivity can be due to different reasons. However, as income is lower or even zero in inactivity, we classify it as worse than employment.

Since unemployment can be stated as involuntary with lower income as in employment, we classify unemployment as a worse status than any kind of employment or education. The matrix in Table 5.1 summarizes the classification of transitions mentioned above.

Table 5.1 **Transition matrix – intuitive classification of transitions** 

	DESTINATION						
ORIGIN	Full-time, permanent	Full-time, temporary	Part-time, permanent	Part-time, temporary	Self-eEmployment	Unemployed	Inactive
Full-time, permanent		-	0	-	-	-	-
Full-time, temporary	+		+	0	+	-	-
Part-time, permanent	0	-		-	-	-	-
Part-time, temporary	+	0	+		+	-	-
Self-employed	+	-	+	-		-	-
Unemployed	+	+	+	+	+		0
Inactive	+	+	+	+	+	0	

Notes: + = upward transition; o = neutral; - = downward transition.

Summed up, transitions from temporary to permanent employment are always rated as upward changes, because they are likely to provide more job security. Transitions from permanent into temporary employment are considered as deteriorations. Transitions within permanent or temporary contracts from full-time to part-time are valued as neutral, because these changes might be induced by flexibility needs that offset a possibly resulting income loss. Transitions from unemployment or inactivity into any form of employment are always rated as upward changes, while movements from employment into these two labour market states are rated as downward changes. However, as the category of inactivity consists of a very heterogeneous population, changes into inactivity do not necessarily have to be downwards shifts.

Further insights into the quality of transitions and labour market states can be given by the reasons for job change. The most important reason for a job change is the search for or the start of a better position (see Table A.5.1 in the appendix). Around 17 percent of the transitions in the EU-SILC are due to a non-extended temporary contract, underlining the lower job-security of temporary jobs. Less important, but still considerable is the reason to change the job due to business closure, dismissal or other reasons that obliged the employee to quit the job. Summed up, almost half of all job changers classify their transition as an upward transition ("To take up or search for better job") while 31 per cent change left their job involuntarily or due to family reasons (end of temporary contract, obliged to stop by employer sale or closure of own/family business, child care and care for other dependent, partner's job required move to another area).

# 5.3 Mobility Comparison across Europe

In the previous section, we classified different transitions into upward and downward transitions. However, the actual number of the analysed transitions is not considered. In this section, we summarize the descriptive evidence of Tasks 1 and 3 on transitions to analyse the amount of mobility between the different labour market states. In the analysis of mobility, we distinguish two different aggregations of labour market states as depicted in Table 5.2. In the first aggregation we distinguish four different labour market states: (self-) employment, unemployment, education and inactivity. In the second aggregation we distinguish eight labour market states: full-time employment with a permanent contract, full-time employment with a temporary contract, part-time employment with a permanent contract, part-time employment with a temporary contract, self-employment, education and inactivity. The mobility analysis of the two classification schemes is done using two specifications, one without job-to-job changes (i.e. considering only transitions between different four/eight labour market states) and one with job-to-job changes (i.e. additionally including transitions between different jobs in employment and employment types, respectively). As the differences between these two classifications and between the scenarios can be attributed to job-to-job transitions, analysing these differences allows further insights into mobility between employment states.

Table 5.2

Different classification schemes of labour market states

4 states	8 states
(Self-)Employed	Full-time, permanent
	Full-time, temporary
	Part-time, permanent
	Part-time, temporary
	Self-employed
Unemployed	Unemployed
Education	Education
Inactive	Inactive

Table 5.3

Markov transition matrix with 4 states in per cent

	Destination (2006)					
Origin (2005)	(Self-)Employed	Unemployed	Student	Inactive		
(Self-)Employed	93.19	2.59	0.62	3.60		
Job-to-job	9.09					
Unemployed	33.40	49.99	2.26	14.35		
Student	19.77	5.09	72.51	2.63		
Inactive	10.44	3.22	0.69	85.66		

Source: EU-SILC, own calculations, wave 2006. – Notes. The four different states are (self-) employment, unemployment, education and inactivity.

Table 5.3 presents the transition matrix for the first specification, i.e. including four states, for the whole EU-SILC sample. This matrix combines the transitions presented in Chapters 2 and 4. Most of the individuals that are (self-)employed in one period stay in this status in the next period. A similar matrix for eight different states is presented in Table 5.4. State dependence is mainly due to individuals in permanent positions, as Table 5.4 suggests. Individuals in temporary positions change their labour market state much more often. Changing from temporary positions results more frequently into unemployment compared to transitions that originate from permanent jobs. Self-employment is as stable as full-time permanent employment with the second lowest fraction of individuals moving to unemployment.

Table 5.4

Markov transition matrix with 8 states in per cent

	Destination (2006)							
Origin (2005)	Full-time, permanent	Full-time, temporary	Part-time, permanent	Part-time, temporary	Self- employed	Unemployed	Education	Inactive
Full-time, permanent	88.79	2.43	2.60	0.34	1.13	1.81	0.24	2.67
Job-to-job	5.75							
Full-time, temporary	29.27	51.02	1.11	3.53	1.96	8.51	1.78	2.81
Job-to-job		10.17						
Part-time, permanent	12.28	0.93	75.04	2.74	0.70	2.03	0.92	5.37
Job-to-job			4.17					
Part-time, temporary	9.94	12.45	13.84	40.41	3.19	8.89	3.81	7.45
Job-to-job				5.89				
Self-employed	4.24	1.22	0.90	0.45	86.31	1.91	0.22	4.75
Unemployed	9.01	11.24	3.89	4.45	4.00	50.60	2.29	14.52
Education	4.29	5.93	3.41	3.61	1.16	5.17	73.74	2.68
Inactive	1.58	0.93	3.82	1.07	2.17	3.25	0.69	86.49

Source: EU-SILC, own calculations. – Notes: The eight different states are full-time employment with a permanent contract, full-time employment with a temporary contract, part-time employment with a permanent contract, part-time employment with a temporary contract, self-employed, unemployment, education and inactivity.

Applying the classification in Table 5.1 to the transitions displayed in Table 5.4 yields the number of up- and downward transitions in the EU-SILC data. The number of upwards shifts (6.9 per cent) in the EU-SILC data from 2005 to 2006 is higher compared to the number of downward shifts (5.6 per cent) according to the used classification (see Table A.5.2 in the appendix). However, most persons (82.9 per cent) stay in the same status.

As chapters 2 and 4 show, there are large differences between the different countries in the importance of the different employment states and the transitions between different states. These results indicate that there are also differences in mobility across European countries. To evaluate the degree to which mobility varies, the transition matrices of different countries are compared by using the Shorrocks (1978) mobility index. The Shorrocks index *S* of transition matrix *P* is calculated using the sum of the fraction of stayers in a transition matrix. The stayers are those individuals that do not change their labour market status from one period to another; they are found on the main diagonal of a transition matrix.

$$S(P) = \frac{n - trace(P)}{n - 1}$$

This sum of the fraction of stayers is standardized by subtracting it from the number of labour market states n in the matrix and dividing it by the number of labour market states minus one. The index has a lower bound of zero, i.e. an index of zero would indicate that there are no changes of status from one period to another. It has an upper bound of ~1.3 in case that everyone changes his status from one period to another.

To allow a comparison of mobility across Europe, the Shorrocks mobility indices for four labour market states in two scenarios, i.e. without and with job-to-job changes, are computed (see Table A.5.3 in the appendix). The lowest mobility across countries is found in Belgium, followed by France, while the highest mobility is observed in the Netherlands and Sweden. When including job-to-job transitions into the calculation of mobility, the ranking changes slightly, but the overall picture stays the same. However, mobility increases sharply in Estonia, Ireland, Luxemburg and the United Kingdom, where job-to-job transitions seem to play an important role. The countries with the lowest mobility are also found to have the lowest mobility in European Commission (2004) which analyses the European Community Household Panel (ECHP) from 1994 to 2001. However, for other countries (such as Luxembourg) the results indicate that there is a lower mobility than observed in European Commission (2004). One reason may be that mobility patterns have changed over time. Furthermore, the differences can also be explained by a different set of labour market states used to compute the index.

When computing the index using eight states, the ranking changes significantly. The Shorrocks index increases in most countries with the number of labour market states (see Table A.5.4 in the appendix). However, there is a decrease in some countries which is the largest in the Netherlands, where the index decreases by 0.15 compared to the Shorrocks index based on four states. These changes are only possible, when a large share of mobility is due to mobility out of and into employment, but not between different employment states.

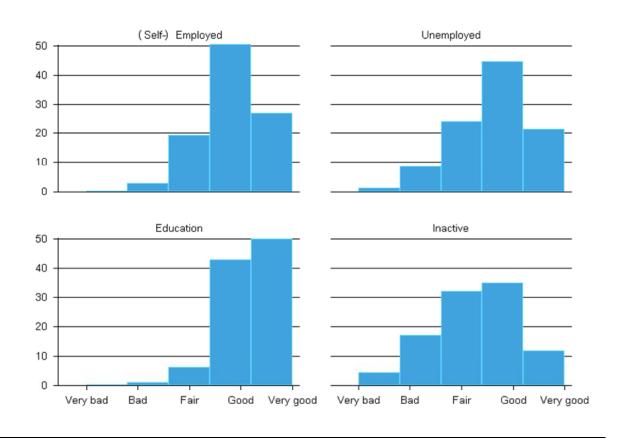
Up to this point, only differences in mobility are observed. However, mobility measures do not measure the quality of the transitions. The reasons for job changes can be good indicators for the quality of job transitions. Although there is no correlation between the indices and the fraction of individuals changing their job to find a better job, there is a significant negative correlation between the indices and the reasons "end of temporary contract" and "obliged to move" (see Table A.5.4 in the appendix). In those countries where the share of job-to-job changes due to the end of the temporary contract or due to being obliged to move is high, the Shorrocks mobility index is significantly lower. The correlation between the Shorrocks index based on eight states (i.e. including job-to-job transitions) and involuntary job change is

-0.45, the correlation with being obliged to move is -0.29 (significant at the 5% level). In other words, mobile countries have a lower fraction of individuals stating that they had to change their jobs due to the end of a temporary contract or due to dismissal. However, the correlation between the Shorrocks index and the fraction of individuals moving due to the end of a temporary contract becomes insignificant when taking into account the prevalence of temporary contracts in a country. Nonetheless, the correlation with the fraction of individuals obliged to move remains significant and negative. One could argue that the fraction of those obliged to move is lower in countries with high mobility, because it is easier to change one's job in case of a bad job match in more mobile labour markets.

# 5.4 Health Status as Quality Indicator

As mentioned in section 5.2, quality of work captures a large number of job characteristics. This can be for example working hours, working time arrangements, health and safety at work, further training, flexibility and security, work-life balance etc. All these job characteristics result in job satisfaction. Studies like Molarius, Berglund, Eriksson, Lambe, Nordström, Eriksson and Feldman (2006) and Fischer and Souza-Poza (2009) show that there is a positive relationship between job satisfaction and health.

Figure 5.1 **Distribution of answers on self-assessed health by employment status** in per cent

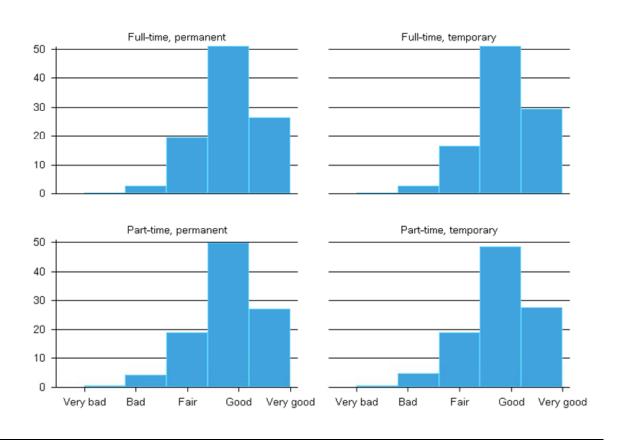


Source: EU-SILC, own calculations.

The EU-SILC dataset provides information on the subjective health status. It is suggested by different studies that labour market states are correlated with health or even improve or deteriorate health. Hamilton, Merrigan and Dufresne (1997) show that unemployment is cor-

related with deteriorating mental health, while employment is correlated with better mental health. With respect to self-assessed health, Cooper, McCausland and Theodossiou (2008) find on basis of the European Community Household Panel that unemployment decreases the probability that an individual remain in good health. Contrary to that, but with a different measure of self-assessed health, Böckerman and Ilmakunnas (2009) conclude on the basis of Finish panel data, that it is those with poor health that are more likely to become unemployed. A similar selection effect is suggested by Schmitz (2010) who analyses the relationship between unemployment and health in Germany. Virtanen et al. (2005) suggest in their meta-study that health of individuals in temporary jobs is rather lower compared to individuals with permanent jobs. We therefore take health as an indicator for job quality. Descriptive statistics suggest a similar relationship between health and labour market status in the used data set as can be seen in Figures 5.1 and 5.2. On average, the health of (self-) employed individuals is higher than that of unemployed individuals but lower than the health of individuals in education. Inactive persons state to have the lowest health on average which is probably due to the fact that this category also comprises disabled persons and persons in early retirement. This descriptive evidence is also reflected in other studies, such as in Crossley and Kennedy (2002), and Molarius et al. (2006) who both find a similar order of labour market states with respect to self-assessed health.

Figure 5.2 **Distribution of answers on self-assessed health by employment status** in per cent

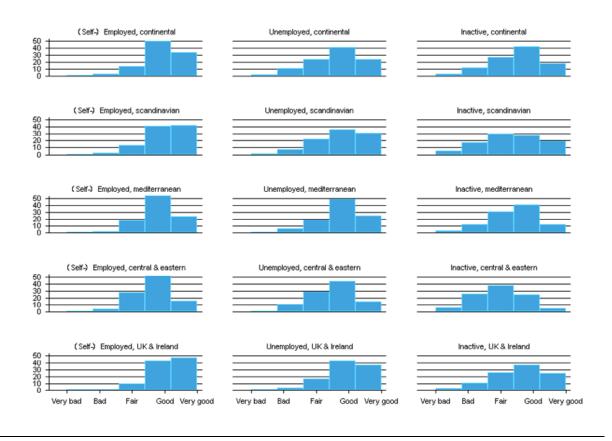


Source: EU-SILC, own calculations.

When splitting up the category of employment into different employment states (Figure 5.2), differences in health are much less pronounced. Full-time temporary employed workers enjoy the best self-reported health on average, closely followed by full-time permanent employed workers. The same order is true for the part-time employed. However, the differences are again very small. This picture does not change when the same analysis is done by country group. Only for the differentiation into four labour market states, there is significant variation across countries (Figure 5.3).<sup>21</sup>

Figure 5.3

Distribution of answers on self-assessed health by employment status and country group
in per cent



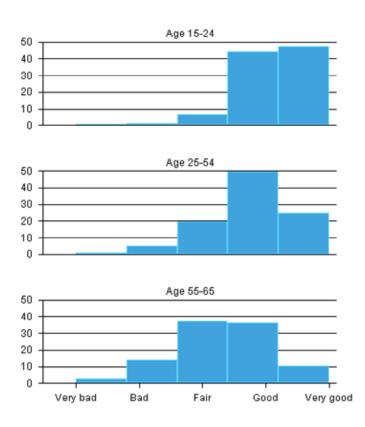
Source: EU-SILC, own calculations.

The difference in the average health status between employed and unemployed workers is most pronounced in Scandinavia (0.35), followed closely by Continental Europe (0.33) and the UK and Ireland (0.28). The smallest difference is found in Mediterranean countries (0.08). When comparing the health of employed and inactive persons this picture changes slightly – the highest difference in health status is found for Scandinavia (0.94), closely followed by Central and Eastern Europe (0.87). These differences may be due to different regulations across countries. For example, job search requirements for the unemployed may be conditional on different health levels across country groups, resulting in different average health levels in the group of unemployed. Similar mechanisms might be at work for the inactive.

<sup>&</sup>lt;sup>21</sup> Note that the category education is omitted in Figure 3.3 for sake of readability. It exhibits the same variation across countries as found in the other categories.

The health variable is measured on a scale with five scores, with one being the lowest and five the highest possible self-assessed general health score. In addition to the differences in self-assessed health across country groups, there are pronounced differences in health across age groups. This becomes obvious when the distribution of answers over the five categories is compared between age groups (Figure 5.4). The mean self-reported health status is highest among individuals aged 15 to 24 (4.4) and lowest among individuals in the oldest age group of those aged between 55 and 65, where it reaches on average only 3.4. This difference is considerable when taking into account that the health variable is measured on a scale with only five scores. Similar descriptive evidence for the different age groups is found by Crossley and Kennedy (2002).

Figure 5.4 **Distribution of answers on self-assessed health by age group** in per cent



Source: EU-SILC, own calculations.

The descriptive evidence of the differences in health between labour market states presented above does not control for any demographic information. In order to do so, we investigate the link between labour market states and individual health status applying an ordered logit model (cf. Box 5.1). The results suggest that compared to unemployment, persons in all other labour market states (except for inactivity) experience a better health status (see Table A.5.5 in the appendix). This is in line with findings in the literature on the relationship between health and labour market states. Hamilton, Merrigan and Dufresne (1997) find that

#### Box 5.1

## **Ordered Regression Models**

The ordered regression model (ORM) is an appropriate econometric tool for the case of ordinal outcomes (cf. Han, Hausman 1990; Long 1997). Such outcomes can be ordered, but the distances between the outcomes are not necessarily meaningful, arbitrary or changing. This is for example the case for the anonymized variable for unemployment duration (DURUNE) in the EU LFS. Intuitively, an ORM measures the baseline hazard (in the example of unemployment duration, the probability of belonging to a certain duration class) as a series of dummies with no prior assumptions about the distribution and parametric form of the underlying hazard function. A recent application of ORM to unemployment duration data can be found in Borra et al. (2009).

The ORM can be seen as a generalization of the binary regression model which has the special case that the outcome has only two categories. The outcome is defined as a latent (i.e. unobserved) variable ranging from  $-\infty$  to

The underlying structural model is:

$$\mathbf{y}_{i}^{\star} = \mathbf{x}_{i}^{\prime} \boldsymbol{\beta} + \boldsymbol{\varepsilon}_{i}$$

where the outcome is dependent on a vector of observable characteristics and a random error term.

Applied to our data, the measurement model divides  $y^*$  into three categories (unemployment duration less than six months, between six and eleven months and more than eleven months):

$$y_i = m \text{ if } \tau_{m-1} \le y_i^* < \tau_m \text{ for } m = 1 \text{ to } 3.$$

 $\tau_0,...,\tau_3$  are the associated threshold values, also called cut points:

$$y_{i} = \begin{cases} 1 \text{ if } \tau_{0} = -\infty < y_{i}^{*} < \tau_{1} \\ 2 \text{ if } \tau_{1} \le y_{i}^{*} < \tau_{2} \\ 3 \text{ if } \tau_{2} \le y_{i}^{*} < \tau_{3} = \infty \end{cases}$$

Note that all but the two exterior cut points need to be estimated together with the coefficients.

The standard formula for the probability of belonging to a particular category in the ORM is:

$$Pr(y = m|x) = F(\tau_m - x'\beta) - F(\tau_{m-1} - x'\beta)$$

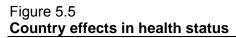
with F as the cumulative distribution function of  $\epsilon$ . The shape of this distribution function depends on the estimated model. In an ordered probit model, the distribution function is the standard normal one. In an ordered logit model,

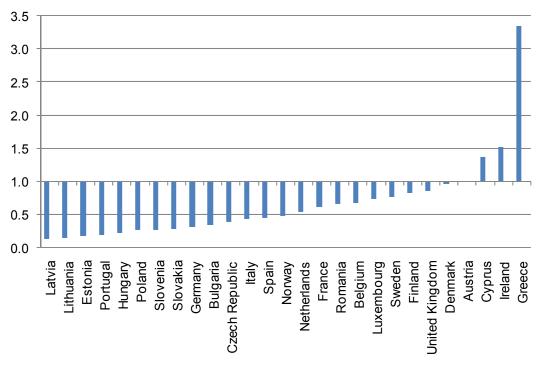
F is the logistic cumulative distribution function with a variance of  $\pi^{\frac{2}{3}}$ . Both methods are known to produce mostly similar results (Han, Hausman 1990). The ordered logit specification has the advantage that it allows us to interpret the coefficients in terms of the odds ratio. As the ORM is a non-linear model by nature, interpretation is not straightforward (as it would be the case for linear regression models). We can interpret the coefficient, while holding the other variables constant (usually at their means). The two most common ways of interpretation are:

- 1. The coefficient  $\beta$  denotes the effect of a standard deviation increase or decrease in a variable on the standardized change in the latent variable
- 2. The exponentiated coefficient  $e^{\beta}$  denotes the effect of a unit increase or decrease in a variable on the odds ratio. Say, for example, that the exponentiated coefficient of a particular variable is 1.20. Then, holding everything else constant, a unit increase in this variable increases the odds of observing an outcome in a category greater than m versus less than or equal to m by 20 per cent. Accordingly, exponentiated coefficients lower than one mean that an increase in the respective variable is associated with a reduction in the odds ratio. Using this interpretation we can gain insight into which factors are important in the determination of unemployment duration and how they compare to each other sizewise. Therefore, we will display exponentiated coefficients in our regression tables.

employment seems to improve mental health and that mental health at the same time improves employability. Cai (2010) observes a positive and significant effect of health on labour market participation, but that labour market participation itself has a negative effect on men's health.

Our findings suggest that full-time temporary workers experience the best health. It is noticeable that temporary workers exhibit a higher probability to be in a better health category than permanent workers. <sup>22</sup> Furthermore, part-time workers experience a lower health than full-time workers. <sup>23</sup> This evidence is in contradiction to the descriptive evidence in OECD (2010), which indicates that part-time employees enjoy a better health than full-time employees in some OECD countries with respect to two health/job quality indicators: "health or safety is not a risk because of job" and "never or almost never find work stressful". However, the differences between the full-time and part-time workers in OECD (2010) are mostly insignificant. Self-employed workers are not different to part-time temporary workers with respect to their health status. However, the highest self-assessed health is observed for individuals in education, an effect that is partly explained by a high fraction of young individuals in this category. The worst health among the labour market states is found for inactivity. This finding indicates that inactive individuals are likely to be in a lower health category than unemployed individuals.<sup>24</sup>





Source: EU-SILC, own calculations. Country fixed effects of Table A.5.5.

When looking at the country differences (illustrated in Figure 5.5), it is possible to rank the countries according to the probability of someone living in these countries to be in a higher health category. The lowest values are found for the Baltic States Latvia, Lithuania and Estonia. This means that someone who lives in one of these countries has a higher probability to be in a lower health category compared to someone in Austria. The highest scores of self-

<sup>&</sup>lt;sup>22</sup> This difference is significant at the 1 percent level for full-time workers.

<sup>&</sup>lt;sup>23</sup> The differences are significant at the 1 percent level for comparisons of temporary part-time and full-time workers and of permanent part-time and full time workers, respectively.

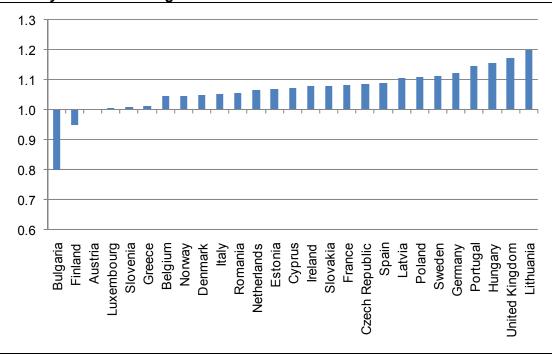
<sup>&</sup>lt;sup>24</sup> As a robustness check, the estimation was redone using ordinary least squares instead of ordered logit. The results are robust against this change, there are only slight changes in the magnitude of coefficients but the interpretation of the results remains unchanged.

assessed health can be observed in Cyprus, Ireland and Greece. However, these differences cannot directly be interpreted as differences in objective health of the inhabitants of these countries. Rather, it is possible that there exist differences in the mindset of the population of these countries that influence how they define bad and good health.

The presented descriptive evidence gives some insights into the differences in health status of all workers. However, we are also interested in labour market transitions and their relationship to health changes. Furthermore, it is possible that there is unobserved heterogeneity between workers that influences both, the labour market status and the self-assessed health. Therefore, we now investigate the changes in health applying different specifications (see Tables A.5.6 to A.5.18 in the appendix). In contrast to the previous specification, the dependent variable is now coded into three categories: deterioration of health, no change in health, and improvement in health as a change from one year to another.

The first specification (Table A.5.6 in the appendix) is based on the four labour market states that are used to calculate the Shorrocks index in its first specification. Three transitions are correlated with a significant change of health: the transitions from employment to inactivity and vice versa and the transition from unemployment to employment. While the change to inactivity goes hand in hand with worsening health, the change from inactivity to employment is correlated with improving self-assessed health. This is in line with a study on the interrelation of mental health and labour market status changes, which found decreasing mental health for those changing from employment to unemployment or inactivity (OECD 2008a). The country effects of this analysis (see also Figure 5.6) indicate that individuals living in Bulgaria have the lowest probability to experience a health increase in the analysed period. The highest probability to experience an improvement in health is found for those individuals living in Hungary, the UK or Lithuania.

Figure 5.6 **Country effects in change of health status** 



Source: EU-SILC, own calculations. Country fixed effects of Table A.5.6.

Analysing each of the five country groups separately, similar patterns emerge (Tables A.5.7 to A.5.11 in the appendix). In the case of Continental Europe, it is noteworthy that the transition from unemployment to education goes hand in hand with improved health. This is probably due to educational active labour market measures, which may be perceived as providing a way out of unemployment, reducing mental stress and improving health. Patterns in the other country groups are similar to the findings of the analysis for all countries. No significant correlations between transitions and health are found for the UK and Ireland.

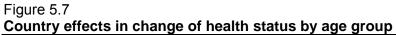
To understand which transitions are decisive for the described relationships, the regressions are repeated for a more differentiated set of employment states. Changes from full-time employment and self-employment into inactivity are mainly responsible for the negative relationship of employment-inactivity transitions and health (see Table A.5.12 in the appendix). It can be seen that transitions out of inactivity to full-time employment and self-employment are decisive for the health improvement for inactivity to employment transitions. However, transitions from inactivity to part-time employment are not correlated with self-assessed health. Interestingly, the theoretical considerations of the beneficial nature of transitions from temporary to permanent employment in terms of higher job security are reflected in the selfassessed health. Transitions from temporary to permanent employment are correlated with an improvement of health (see Table A.5.13 in the appendix) – at least for individuals in fulltime employment. These results are also reflected in research on satisfaction. Wood (2008), employing a British cross-section data-set, finds lower job-satisfaction among temporary employees compared to employees in permanent positions. This finding is confirmed on the basis of the British Household Panel Survey (BHPS) by Green and Heywood (2010), who show that the negative correlation between job-satisfaction and temporary employment is driven by one component of job-satisfaction. Workers moving from a permanent into a temporary position are significantly less satisfied with job-security compared to other workers.<sup>25</sup> De Cuyper, Notelaers and De Witte (2009) find higher mean values of life-satisfaction among Belgian workers with respect to transitions from temporary employment to permanent employment compared to transitions in the opposite direction. Similarly, transitions from parttime to full-time jobs are correlated with improving health for temporary workers only (see Table A.5.14 in the appendix). As the correlations found with these transitions confirm our initial analysis of the relationship between health and part-time/full-time work, we suspect that the differences to OECD (2010) are due to the different and probably more accurate health variable that we use.

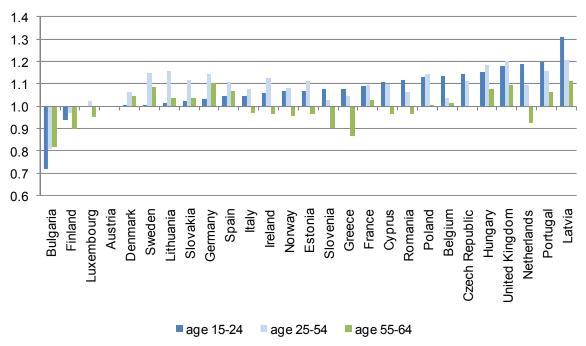
There is a strong correlation between age and health but also between age and the probability to be in a certain labour market status (see Kerkhofs and Lindeboom 1997). We therefore split up our data set by age group and analyse each group separately (see Tables A.5.15 to A.5.18 in the appendix). Transitions in and out of inactivity have the expected oddsratios, except for transitions from education into inactivity for the highest age group of those aged 55 to 64 (Table A.5.15 in the appendix). A possible explanation is that some of these individuals were urged into a training measure they disliked, ending it with a transition into inactivity. As in the other regression, part-time to full-time transitions are correlated with improving health but only for workers aged between 25 and 54 (Table A.5.16 in the appendix). Moreover, this middle age group seems to be the driving force of the positive correlation of

<sup>&</sup>lt;sup>25</sup> However, these transitions are at the same time correlated with higher satisfaction with pay, working hours and the work itself, but only for male workers. This finding is possibly due to voluntary transitions, which Green and Heywood (2010) do not control for.

health and temporary-to-permanent job transitions (Table A.5.17 in the appendix). It is also salient, that transitions from full-time permanent to full-time temporary jobs are only detrimental for individuals in the oldest age group (see Table A.5.18 in the appendix). The reason is probably, that these transitions do mean a (probably involuntary) end of a secure employment relationship almost at the end of a working life. For individuals at the beginning or in the midst of their working life, this does not seem to pose a problem in terms of self-assessed health. On the other hand, changes from temporary to permanent full-time jobs are not significantly correlated with health for the oldest age group. It is only for the lower and middle aged group, that a significant positive correlation exists. One possible reason could be that this improvement in income security is more important for younger workers, because a large part of their working life is still ahead.

Investigating the country fixed effects of the analysis by age group (Figure 5.7) exhibits some diverging patterns. Slovenia, for instance, has one of the lowest probabilities that individuals aged 55 to 64 improve their health between two interviews, while the probability for individuals in the other age groups to experience an improvement in health is much higher. For those aged 15 to 24, it is only Bulgaria, Finland and Luxembourg with a lower probability of improving health than Austria.





Source: EU-SILC, own calculations. Country fixed effects of Table A.5.15.

Although it would be interesting to elaborate into the voluntariness of transitions across age groups, the number of observations does not allow this. However, we do have enough observations to do such an analysis for all age groups (see Tables A.5.19 and A.5.20 in the appendix).<sup>26</sup> We use two proxies for voluntary changes, namely direct changes between employment without an intervening period of unemployment and changes that were done for rather involuntary reasons. These reasons are the end of a temporary contract, being obliged

<sup>&</sup>lt;sup>26</sup> The two specifications in each table differ only in terms of the interaction terms added in specification 2.

to leave the job, and the sale or closure of one's own business. It turns out that direct changes between jobs go hand in hand with an improved perceived health, while changes that are due to an involuntary change lead to rather mixed results. While one would expect that "involuntary" job changes relate to decreasing self-perceived health, we do find the contrary for transitions from full-time permanent to full-time temporary employment. However, the variable on the reason of job-change is likely to be erroneous in cases with several transitions within one year, as it is unclear to which transition it refers in a given year (see Chapter 7 for a discussion of this issue).

There are also transitions that are not correlated with changes in self-assessed health. In most cases it does not matter whether someone changes from permanent to temporary or from part-time to full-time employment and vice versa (for a compact overview see Table 5.5) regarding health. The same is true for transitions out of self-employment to other forms of employment which are not correlated with significant health changes. When comparing the number of up- and downward transitions based on the health classification versus the classification in Table 5.1, the classification based on health changes leads to a higher number of upward transitions relative to downward transitions.

Table 5.5

Transition matrix with changes in health status

I ransition matrix with		ges i nsition		aith s	tatus	5		
Transition from:	Full-time, permanent		¥	Part-time, temporary	Self-employed	Unemploved	Education	Inactive
Full-time, permanent		0	0	0	0	0	0	-
Full-time, temporary	+		0	0	0	0	0	-
Part-time, permanent	0	0		o	0	0	0	0
Part-time, temporary	0	+	0		0	0	0	0
Self-employed	0	0	0	0		0	0	-
Unemployed	0	0	0	0	0		0	0
Education	0	0	0	0	0	0		О
Inactive	+	+	0	0	+	0	0	

Source: EU-SILC, own calculations. – Notes: + = self-assessed health improves; o = self-assessed health remains unchanged; - = self-assessed health deteriorates.

## 5.5 Monthly income and hourly wages as quality indicators

One of the quality indicators of the European Employment Strategy is the overall performance and productivity of workers. Wages and income are indicators for productivity. We therefore analyse the income and wages earned in a labour market status as an indicator for the quality of this status. While income captures both, working time and productivity, hourly

wages only capture productivity. However, for the individual worker the monthly income is more decisive than the hourly wage rate. Due to these reasons we analyse both indicators. In this section, we investigate the quality of certain types of labour market transitions by investigating the link between the incomes and wages earned in different labour market states on the one hand, and wage and income changes due to transitions between these states on the other hand.

The number of transitions for which changes of monthly income and hourly wage can be observed is very low for some types of transitions (see Table A.5.21 and Table A.5.22 in the appendix). This is especially true for transitions between full-time permanent and part-time temporary employment and between full-time temporary and both types of part-time employment. In the descriptive analysis it can be seen that monthly income drops significantly (around 20 per cent) for transitions into unemployment (see Table A.5.21 in the appendix). Changing from full-time to part-time employment reduces monthly income by around 13 per cent, except for changes from full-time temporary to part-time permanent employment where income is increased by 5%. All other transitions are related to an increase in monthly income. The biggest increases can be seen for movements out of unemployment, especially into fulltime permanent and temporary employment. Those who change within full-time or part-time employment between a permanent and temporary contract also have monthly income increases ranging from 12 per cent to 18 per cent. What is also worthwhile noticing is that even for those remaining in the same state, monthly income increases can be observed ranging from around 6 per cent (for the part-time permanent employed) to 15 per cent (for the fulltime temporary employed).

Regarding changes of hourly wages, a different picture can be observed (see Table A.5.22 in the appendix). The hourly wage changes are positive for all types of transitions except for the movement from part-time permanent employment into full-time temporary employment. This is in contrast to the findings that monthly income increases for these transitions. An explanation might be that people in full-time employment, especially those with temporary contracts, work more overtime hours than those in part-time employment. The biggest increases (of around 33 per cent) in hourly wage changes are observed for those moving from full-time permanent into part-time temporary work and for those moving from full-time temporary work into part-time permanent work. Again, as we have seen before, even for those remaining in the same labour market state, we observe wage increases ranging from 7 per cent (for the permanent part-time employed) to 15 per cent (for the temporary full-time employed).

In order to get some further insights, we estimate the relationship between labour market states and transitions, respectively on wages and income. We first estimate Mincerian wage regressions with the logarithm of hourly wages (first and second column of Table A.5.23 in the appendix) and the logarithm of monthly wages (third and fourth column of Table A.5.23 in the appendix) as dependent variables. Regressors are demographic (personal and household) variables and human capital (schooling) variables. Furthermore, dummy variables that indicate the labour market state of the worker are included. Generally, the coefficients can be interpreted as percentages using the following transformation: [exp(Coefficient)-1]\*100. Furthermore, for small numbers the coefficient itself is a good approximation for the percentage change.<sup>27</sup>

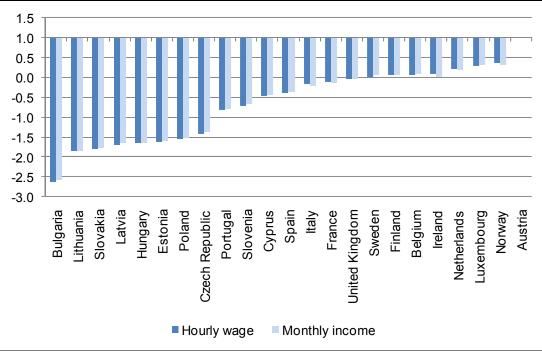
<sup>&</sup>lt;sup>27</sup> For example, a coefficient of 0.3 indicates an increase by 30 per cent.

It should be noted that the coefficients cannot be interpreted as causal effects on wages since some of the coefficients might be endogenous: The explanatory variable then captures a mixed effect of itself and an unobserved variable. The effect of education on wages for example might be biased because cognitive talent is missing in our specification. The education coefficient then might be biased upwards since it is possible that those individuals with higher cognitive talent have on average higher wages and individuals with higher cognitive talent also receive on average higher levels of education.

The results indicate that men have on average a higher hourly and monthly wage. Older people have on average higher hourly and monthly incomes than those aged 15 to 24. The results furthermore suggest that married workers and workers living with a partner earn more than singles in terms of hourly wages and monthly income. Regarding skill level, high skilled workers earn most. By contrast, having elderly people in the household is associated with lower income. Those persons having a part-time employed partner in the household do not have different monthly incomes or hourly wages than those who live with their inactive or unemployed partner in the household. Those who have a full-time employed partner in the household have a significantly lower hourly wage than those who do not have a working partner. The country dummies show that in CEE countries, wages are in general lower than in other European countries. The difference to Austria ranges from 84 per cent in Lithuania to 52 per cent in Slovenia (a graphic overview over the country differences is found in Figure 5.8).

Figure 5.8

Country effects in hourly wage and monthly income



Source: EU-SILC, own calculations. Country fixed effects of Table A.5.23.

The findings for the hourly wages indicate that workers in temporary employment have hourly wages that are on average 19 per cent lower than the hourly wages of those who are permanently employed (the reference category). This is in line with the findings by Arranz et al (2005) using the ECHP from 1991 to 2001, and Booth et al (2002) using the British House-

hold Panel for the years 1991 to 1998. Between those who are part-time permanent employed and full-time permanent employed, no significant differences in hourly wages can be observed. This finding is in contrast to O'Dorchai, Plasman and Rycx (2007) who find a part-time wage gap for men in six European countries that cannot be explained by worker and job characteristics. However, Hardoy and Schøne (2006) for Norwegian women and Manning and Petrongolo (2008) for British women show that almost the whole pay gap can be explained by observables.

The results for the monthly income show that all other labour market states are associated with significantly lower income than full-time permanent employment ranging from 81 per cent less for unemployed workers to 17 per cent less for temporary full-time employed workers. Temporary part-time employed workers get 57 per cent less and permanent part-time employed workers 46 per cent less. All these effects are statistically different from one another which means that unemployed workers have the lowest monthly income, followed by part-time temporary employed, part-time permanent employed and full-time temporary employed workers.

Table 5.6

Transition matrix – classification by hourly wages

		DESTIN	OITA	N
ORIGIN	Full-time, permanent	Full-time, temporary	Part-time, permanent	Part-time, temporary
Full-time, permanent		-	0	-
Full-time, temporary	+		+	0
Part-time, permanent	0	-		-
Part-time, temporary	+	0	+	

Notes: + = wage increases; o = wage remains unchanged; - = wage decreases.

The matrices in Tables 5.6 and 5.7 summarize the results for the relationship between the different labour market states and the hourly wage (Table 5.6) and the monthly income (Table 5.7), respectively. The matrices give an overview which transitions are associated with a significantly positive and a significantly negative wage difference. In combination with the observed transitions presented in Table 5.4, we calculate the number of upward and downward transitions based on these classifications. The results indicate that 3.6 per cent of all workers make upward transitions and 1.8 per cent make downward transitions regarding changes in differences in hourly wages (see Table A.5.24 in the appendix). However, there is a smaller difference between upward and downward transitions if the classification is based on differences in monthly income. Since we restrict our analysis to employed and unemployed workers, the overall population is not comparable to the results of the theory-based

Table 5.7

Transition matrix – classification by monthly income

	DESTINATION							
ORIGIN	Full-time, permanent	Full-time, temporary	Part-time, permanent	Part-time, temporary	Unemployed			
Full-time, permanent		-	-	-	-			
Full-time, temporary	+		-	+	-			
Part-time, permanent	+	+		-	-			
Part-time, temporary	+	+	-		-			
Unemployed	+	+	+	+				

Notes: + = income increases; o = income remains unchanged; - = income decreases.

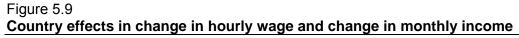
and the health classification. It can be seen that state dependence of the working population is higher than for the whole population. More than 90 per cent of the employed workers stay in the same labour market status and more than 86 per cent of employed and unemployed workers do not change their labour market status.

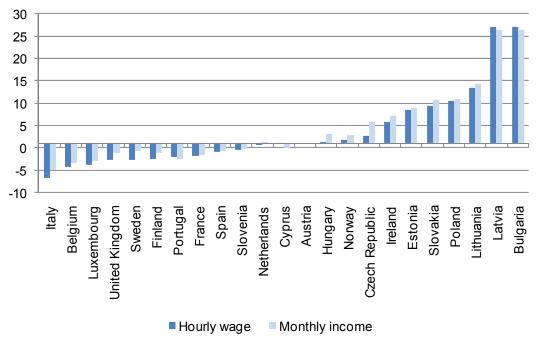
In a next step, we estimate regressions for the effect of transitions on wage changes (Table A.5.25 in the appendix). This analysis has the advantage that we can analyse the changes due to transitions. Furthermore, unobserved heterogeneity such as motivation and preferences can be controlled for. However, the findings for the transitions are only on the basis of those workers that realize labour market transitions. Therefore, the results are valid for those workers but it can be possible that those who do not change their status would realize different wage/income changes if they had changed.

In this analysis of first differences, the dependent variables are percentage changes of hourly wage (the first four columns) and monthly income (the last four columns) while the explanatories are transitions between the different labour market states. Using monthly income as the dependent variable allows us to include unemployed workers in the analysis in comparison to the regressions based on hourly wages where we cannot calculate the hourly wage for the unemployed and thus exclude them from the analysis.

In a first specification (first and third column) the relationship between transitions from full-time to part-time, from part-time to full-time, permanent to temporary, and from temporary to permanent employment, and additionally the transitions into and out of unemployment to full-time and part-time employment and the monthly income are investigated. Additionally, full-time and part-time employment is interacted with temporary and permanent contracts so that we can distinguish in detail between certain types of transitions (third and fourth column). For all specifications, it can be seen that being male is associated on average with higher wage changes than being female. Wage changes are on average lower for older and married people. Skill level, number and age of children in the household, number of elderly in the household or job situation of the partner does not seem to be correlated with wage changes.

The highest wage growth is now observed for the Eastern European countries, with the highest change for Latvia and Bulgaria (27 per cent in comparison to Austria). An exception is Hungary which only has a small wage change of 1 per cent in comparison to Austria (a graphic overview over the country differences can be found in Figure 5.9). It has to be taken into account that these results only indicate the mean wage changes between two consecutive years in these countries. The results therefore indicate that Latvia and Bulgaria experienced the largest real wage changes during the observation period.





Source: EU-SILC, own calculations. Country fixed effects of Table A.5.25.

Moving from full-time to part-time employment is associated with a monthly income reduction of 15 per cent (column 5) but an hourly wage increase of 12 per cent (column 1). The hourly wage increase might be surprising, but it is possible that those moving into part-time do fewer unpaid overtime hours and therefore monthly income is reduced but hourly wages increase. This is in line with the findings by the OECD (2010) that finds that part-time work is associated with a premium in terms of control over working time. Moving from part-time to full-time employment increases the monthly income by 20 per cent and reduces the hourly wage by 5 per cent. In line with the previous explanation, those moving into full-time work have to work more unpaid overtime hours. Moving from full-time employment to unemployment reduces the monthly income by 50 per cent and from part-time employment by 18 per cent. Changing the contract from permanent to temporary is not associated with a significant wage change while a transition from a temporary contract to a permanent contract is associated with a 5 per cent hourly wage increase and 4 per cent monthly wage increase.

The detailed classifications of changes (in columns 3 and 7) show that significant hourly wage changes are only observed for movements within full-time employment from temporary

Table 5.8

Transition matrix with ho	urly w	age ch	nange	<u>s</u>
		ESTI	OITA	N
ORIGIN	Full-time, permanent	Full-time, temporary	Part-time, permanent	Part-time, temporary
Full-time, permanent		0	0	0
Full-time, temporary	+		0	0
Part-time, permanent	0	-		0
Part-time, temporary	0	0	0	

Notes: + = wage increases; o = wage remains unchanged; - = wage decreases.

Table 5.9 **Transition matrix with monthly income changes** 

	DESTINATION						
ORIGIN	Full-time, permanent	Full-time, temporary	Part-time, permanent	Part-time, temporary	Unemployed		
Full-time, permanent		0	-	-	-		
Full-time, temporary	+		0	0	-		
Part-time, permanent	+	+		0	0		
Part-time, temporary	+	+	+		-		
Unemployed	+	+	+	+			

Notes: + = wage increases; o = wage remains unchanged; - = wage decreases.

to permanent (+4 per cent) and for movements from part-time permanent employment to full-time temporary employment (-27 per cent). Positive monthly income changes are observed from temporary or permanent part-time employment to full-time employment (permanent or temporary) and monthly income reductions are observed for those moving from full-time permanent to part-time (permanent or temporary). Positive changes are also observed for movements out of unemployment with monthly income increases of up to around 130 per cent for those who move into full-time employment. However, it is possible that this positive effect is partly offset over the next one or two years for those moving into temporary employment due to lower earnings and more unemployment spells as found by Autor and Houseman (2005). Significantly negative monthly income changes are also observed for

movements into unemployment, the highest for moving from full-time temporary employment into unemployment (-52 per cent). Again it should be noted that the coefficients of the detailed classification have to be interpreted with caution. The number of observations can be very low.

The matrices in Tables 5.8 and 5.9 summarize the effects of the different transitions for hourly wages and for the monthly income. Transitions that are associated with a significantly positive and a significantly negative wage change are shown with a positive and a negative sign, respectively. When it is taken into account how many of the workers realize the different transitions, it can be seen that only 0.07 per cent of workers change into a different type of employment where they realize hourly wage decreases while 2.8 per cent realize upward transitions regarding the hourly wage rate (see Table A.5.26 in the appendix). While there are fewer differences regarding hourly wages, there are more differences regarding monthly income. Therefore, 7.5 per cent realize upward transitions and 4.4 per cent realize downward transitions.

## 5.5 Conclusion

In this chapter the quality of different labour market states and the transitions between these states are investigated. Indicators for job quality can be working time, security, satisfaction, equality, health, wages, further training etc. Due to data availability, the investigated quality characteristics in this analysis are mainly self-assessed health, and income and wages. Besides these measures of the quality of labour market transitions, mobility in the Member States is analysed. The results suggest that the lowest mobility is in Belgium and France while it is the highest in the Netherlands and Sweden. However, when the mobility between different types of employment is also taken into account, mobility in the Netherlands decreases.

The findings regarding health suggest that inactive persons experience the worst health while persons in education are of the best health. Between those workers that participate in the labour market, the unemployed state that they are less healthy than employed workers. Full-time temporary employed workers state to be healthier than those in permanent or part-time employment.

To account for individual heterogeneity, the changes in self-assessed health are analysed in a second step. The findings suggest that transitions from unemployment or inactivity into employment are correlated with improving health. Full-time workers that change from a temporary into a permanent contract experience improving health changes. The same is true for temporary workers with transitions from part-time to full-time employment.

Besides the analysis of differences in health, wage and income differentials between the different employment types are analysed. There are substantial differences in income and wages between the sexes, age groups, skill groups and the different Member States. Furthermore, it can be seen that wages and income of temporary employed workers are below those of permanent employed workers. The findings suggest that there are no differences in hourly wages between part-time and full-time workers.

When analysing wage and income changes of workers who change their employment status, it can be observed that although there are negative income changes when changing from full-time to part-time employment, hourly wages increase. Furthermore, full-time em-

# **RWI**

ployed workers that change from a temporary job into a permanent job experience wage increases.

Summed up, the results indicate that workers that change from temporary to permanent employment increase both, their wage rate and their health status. Therefore, permanent employment seems to be of higher job quality than temporary employment. Regarding the quality of full-time and part-time employment no clear pattern can be observed.

## 6. Task 5: Pay Transitions

## 6.1 Background and Objectives

In Europe, there exist remarkable cross-country differences in labour market inequality. While some countries, especially the UK, have experienced a substantial rise in wage dispersion, other countries such as Italy and France have shown only modest increases. There is a large literature that explains differences in wage inequality between different countries by labour market institutions. However, inequality measures are just a snapshot on earnings but cannot give information on inequality in life-time earnings. Measures of inequality do not give any insights if the same workers are always at the bottom of the income distribution or if they can improve their income position. Even if there exists high earnings inequality, it is possible that life-time earnings inequality is smaller. Wage mobility might play a crucial role in this context, since it can contribute to an equalization of earnings (Buchinsky and Hunt 1999, Dickens 2000). Furthermore, from a policy perspective, it is important to understand which processes determine the shape of the income distribution, i.e. to understand wage mobility. In fact, mobility can increase or decrease earnings inequality. For policy issues it is therefore very important not only to measure inequality, but also mobility and its impact on wage inequality.

The aim of the analysis in Task 5 is to understand worker- and country-specific differences in wage mobility patterns, and how they are related to wage inequality in Europe. Tasks 1, 3 and 4 analyse mobility between different labour market states. In addition Task 4 investigates the link between pay on the one hand and transitions between different labour market states (full-time employment, part-time employment, self-employment etc.) on the other hand. In Task 5, we focus on full-time employed workers only. First, the earnings distribution and the resulting extent of inequality are analysed. Additionally, the analysis covers the mobility of full-time workers in the country-specific income distribution.

In our investigation of labour market inequality, we specifically focus on gross monthly labour income (also denoted "pay", "earnings", or simply "income"), i.e. we exclude income from other sources, e.g. capital income. Therefore, our measure of income includes wage income as the main component, and income from other work-related sources, e.g. bonus payments (cf. Chapter 7 for details).

The analysis in this task proceeds as follows. First, we provide descriptive evidence on earnings inequality in each of the analysed Member States. Second, we present descriptive evidence on the importance of pay transitions, both for different worker groups (gender, age, education, etc.) and across EU countries. Third, in order to take into account heterogeneity across individuals, we also analyse econometrically wage mobility in the EU. In doing so, we consider two dimensions of pay transitions: On the one hand, we investigate to which extent individuals move from their original income decile to another one. On the other hand, we examine the distance of the transitions, i.e. the number of deciles a worker moves upward and downward, respectively (cf. Raferzeder and Winter-Ebmer 2007).

### 6.2 Empirical Strategy

The empirical investigation proceeds in five steps, which can be summarized as follows:

- Based on the country-specific income distribution, five different inequality measures are calculated using both yearly incomes and incomes which are averaged on an individual level for the entire period of observation.
- 2. For the different country groups, the income distribution is graphically analysed.
- The country-specific income distribution of each year in the observation period is divided into deciles, based on which individuals are ranked in the earnings hierarchy. Descriptive statistics are computed to illustrate the transitions between income deciles.
- 4. To investigate the probability to move up or down the income distribution, multinomial logit models are estimated. The baseline specification contains personal and household characteristics, as well as country fixed effects and time dummies. An extended specification of the multinomial logit model additionally includes occupation dummies (for the occupation in the initial year) and a dummy variable indicating whether the pay transition was accompanied by a change of occupation.
- 5. To take into account the distance of pay transitions, ordered logit models are estimated. We again estimate a baseline and an extended specification as described above.

The analysis in this task is based on both the monthly and the yearly information contained in the data set. On the one hand, we are particularly interested in the impact of job changes, for which information is only available on a yearly basis. We therefore use the information on the labour market state of individual workers contained in the yearly data. In doing so, we restrict our analysis to workers that are full-time employed at the date of the interview. On the other hand, income is calculated on the basis of the calendar data (see Chapter 7), i.e. at a monthly frequency. Note that both the data from the monthly employment calendar and the income information in EU-SILC refer to the year preceding the interview.

Given that we use both monthly and yearly information on the labour market state, we need to make sure that the data are consistent, and therefore compare the labour market state at the time of the interview with the calendar information. Unfortunately, the EU-SILC data set only provides the year and guarter with respect to the time of the interview. Therefore, we proceed as follows: We first check whether the worker is full-time employed in the calendar data of the third month of the quarter given for the time of the interview. If the person is fulltime employed, the income information of this month is added to the yearly information. Otherwise, the second month of the quarter given for the time of the interview is used, and we investigate whether the information on full-time employment is consistent. Finally, the same procedure is applied for the first month of the quarter of the interview. If no match can be found for any of the three months, the observation is excluded from the analysis. For the year before the time of the first interview of an individual worker, the calendar data comprise information on the worker's labour market status and income. We exploit this information and include it in the yearly data set. Therefore, we obtain the calendar month 12 months before the first interview as first observation. The year of the last interview of an individual worker cannot be used in our analysis because there is no income information available for this year.

The five steps of the empirical strategy are now described in more detail. In the descriptive analysis, we present different measures of income inequality. These measures are calcu-

lated for full-time workers that are observed in at least two consecutive years. For those workers, the income distribution is analysed and descriptive results for each of the countries are presented. For those workers that are observed in four years, income is averaged over four years. Based on this new distribution, inequality is again calculated and presented for each country.

Based on the same full-time employed workers, the income distributions in the Member States are displayed in histograms.

In the third step, we characterise the degree of income mobility in several ways. First, we present Markov transition matrices which, for every decile of the income distribution, indicate the probability of remaining in the same decile, and the probabilities of moving (up or down) to another decile. Second, we compute the degree of persistence of the income distribution, which we measure by the share of workers who remain in their income decile from one year to the next. Third, we provide evidence on the probability of different pay transitions. The latter include the probabilities of moving up the income distribution by one decile, or by two or more deciles, and of moving down the income distribution by one decile, or by two or more deciles.

Finally, we analyse the size of pay transitions. In particular, we present the average decile movement (i.e. the average number of deciles an individual moves up or down the income distribution from one year to the next), the average of upward decile transitions (i.e. the average number of deciles an individual moves up the income distribution from one year to the next, for all individuals that move up the income distribution), and the average of downward decile transitions (i.e. the average number of deciles an individual moves down the income distribution from one year to the next, for all individuals that move down the income distribution).

Since income mobility patterns are characterized by significant heterogeneity and are likely to differ for various population subgroups, income transition rates are shown for categorical stratifications (gender, age, education) as well as for five country groups. The country groups used read as follows:

- Continental European Countries: Austria, Belgium, France, Luxembourg, Netherlands and Germany,
- Scandinavian Countries: Denmark, Finland, Sweden and Norway,
- Mediterranean Countries: Cyprus, Spain,
- Central and Eastern Europe (CEE): Bulgaria, the Czech Republic, Estonia, Hungary, Lithuania, Latvia, Poland, Romania, Slovenia and Slovakia,
- the United Kingdom and Ireland.

In the second step of the empirical investigation, we conduct an econometric analysis at the individual level, thus taking into account worker heterogeneity. In doing so, multinomial logit models are estimated (see Box 2.1 for details). The categories examined are upward mobility (moving up one or more deciles), downward mobility (moving down one or more deciles), and no mobility. The following explanatory variables are included in the basic specification:

- A dummy variable for male workers;
- Dummy variables for three age groups (young, middle-aged and older workers);

- Dummy variables for three education groups: workers possessing low completed levels of education (ISCED 0-2), medium completed levels of education (ISCED 3-4) and high completed levels of education (ISCED 5-6):
- Dummy variables for the marital status: single, married and living with partner;
- The number of children up to 4 years in the household;
- The number of children between 5 and 15 years in the household;
- The number of elderly (65 years and older) in the household;
- A dummy variable for the presence of a full-time employed spouse in the household;
- A dummy variable for the presence of a part-time employed spouse in the household;
- A dummy variable taking on the value one if the individual has changed jobs directly, i.e. without an intervening non-employment spell;
- A dummy variable taking on the value one if the individual has changed job indirectly, i.e. with an intervening non-employment spell;
- Year dummies taking into account time-specific effects (e.g. trends over time) which are common for all workers;
- Country dummies capturing country-specific effects which are constant over time.

The extended specification additionally includes the following explanatory variables:

- Dummy variables for 9 occupational groups: Legislators, senior officials and managers; professionals; technicians and associate professionals; clerks; service workers and shop and market sales workers; skilled agricultural and fishery workers; craft and related trades workers; plant and machine operators and assemblers; elementary occupations;
- A dummy variable taking on the value one if the individual has changed occupation since the preceding interview.

Information on the occupation is only available in the yearly data. Therefore, the first observation for each person which is generated from the monthly calendar data cannot be used in this specification, because this information refers to the year preceding the first interview. Hence, the analysis including information on occupation is based on a different sample than the analysis without information on occupation. For this extended specification, only the marginal effects of the additional variables are presented, although all other variables are included in the analysis.

Since the distance of income transitions also plays an important role for the income distribution, in a third step we estimate ordered logit models (cf. Box 5.1), with the number of deciles workers move up or down the income distribution used as dependent variable. Again a baseline specification and an extended specification are defined, which include the same covariates as described above.

In order to examine whether the associations between the transitions and covariates are homogenous across the EU-SILC countries, we also perform all estimations separately for each country group.

## 6.2 Empirical Results

#### 6.3.1 Pay Inequality

This section presents different inequality measures for each of the Member States. We analyse different inequality measures since each of the measures is most sensitive to different parts of the income distribution. We calculate the mean log deviation, the Gini coefficient, the

90 to 10 percentile ratio and the first and second Theil index. For an explanation of these indices see Box 6.1.

#### Box 6.1

#### Inequality measures

There exist a number of inequality measures. All of these measures have in common that they reflect the statistical dispersion of a distribution, in our case the income distribution.

The income distribution  $y = \{y_i\}$  consists of N observations of the N individuals whereas  $y_i$  is i's income.

One of the most common measures is the Gini coefficient:

$$I_{gini}(y) = \frac{1}{2N^2\overline{y}} = \sum_{i=1}^{N} \sum_{j=1}^{N} |y_j - y_i|$$

where  $\overline{y}$  is the mean income.

A value of 0 expresses total equality and a value of 1 maximal inequality.

Furthermore, there exist inequality measures from the entropy class.

The mean log deviation (MLD) is defined as

$$I_{mid}(y) = \frac{1}{N} \sum_{i=1}^{N} \log \left( \frac{\overline{y}}{y_t} \right),$$

the Theil 1 index is defined as

$$I_{theil1}(y) = \frac{1}{N} \sum_{i=1}^{N} \frac{y_i}{\overline{y}} \log \left( \frac{y_i}{\overline{y}} \right)$$

and the Theil 2 index as

$$I_{theil2}(y) = \frac{1}{2N} \sum_{i=1}^{N} \left[ \left( \frac{y_i}{\overline{y}} \right)^2 - 1 \right].$$

Finally, a quite different measure is calculated. The 90<sup>th</sup> to 10<sup>th</sup> percentile ratio (p90/p10) is the income at the 90<sup>th</sup> percentile divided by the income at the 10<sup>th</sup> percentile of the income distribution. In contrast to the other measures, this measure takes values greater than one, with higher values indicating higher inequality.

The different measures are sensitive to different types of income inequality: The mean log deviation index is most sensitive to inequality near the bottom of the distribution; the Gini index is most sensitive in the middle, the Theil2 index at the top, and the Theil1 index at both extremes of the distribution.

Independently of the selected inequality measure, inequality is the smallest in Denmark (see Table A.6.1 in the appendix). Low inequality can also be observed in Belgium, Finland and Sweden. For Norway, all measures except for the Theil 2 index indicate that there is low earnings inequality. The high value in the Theil 2 index indicates that there is inequality at the upper end of the income distribution. By contrast, inequality is the highest in Portugal. This finding is in line with OECD (2002c) and OECD (2010). Other countries with high inequality are Latvia, Ireland, Lithuania and the United Kingdom. In the United Kingdom, the 90 to 10 percentile ratio is relatively low compared to all other inequality measures. This finding suggests that there is a large inequality in the tails of the distribution.

The observed inequality measures are comparable to those obtained by Aarberge et al. (2002) for the Scandinavian countries and by OECD (2008a) and OECD (2010) for several countries. Furthermore, for most countries the indicators are similar to those measured by Cholezas and Tsakloglou (2007). However, the observed inequality in Cholezas and Tsakloglou (2007) based on net monthly earnings in the ECHP is lower for Austria, Italy, Luxembourg and Portugal. This could be an indication that income inequality has risen in these

countries during the last decade but it can also be due to redistribution by taxes since we analyse gross earnings and it could also reflect differences in the underlying data used. While inequality in Portugal is also higher than in Cardoso (2004) for 1997, the inequality measures observed for Italy are quite similar to Bigard, Guillotin and Lucifora (2007).

With the exception of France, the ranking of countries is similar to Cholezas and Tsakloglou (2007). France seem to have experienced a decrease in inequality since Cholezas and Tsakloglou (2007) as well as Bigard, Guillotin and Lucifora (1998) both observe significant larger inequality in 1998 and 1988, respectively, than our results indicate. OECD (2010) also reports a decrease in earnings inequality between 1998 and 2008.

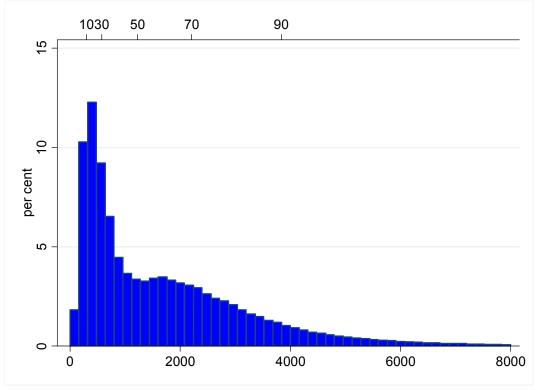
To get some impression if these measures of earnings inequality are just a snapshot or if the computed inequality is persistent, earnings inequality is calculated for all workers that are observed for four years. For these workers, labour income is averaged over all years. On the basis of this income, the inequality measures are calculated again. If mobility leads to a decrease in inequality, one can expect that there is a lower inequality using average income. Averaging income over several years is equivalent to taking into account workers' mobility over this time period since the average earnings are a result of the initial earnings and the transitions afterwards. Due to the rotational structure of the data set, only four year averages can be used. To investigate long-term changes, a longer observation period – in the optimal case life-time earnings – would be necessary.

In almost all countries, inequality derived on average earnings is lower than on the basis of the earnings of one month (see Table A.6.2 in the appendix). However, the opposite effect can be observed for Cyprus, Estonia and Portugal. Therefore, in these countries, mobility increases inequality. This means that workers with high earnings improve their position compared to those with relatively low earnings. This finding suggests that income mobility has a detrimental effect on earnings inequality in Cyprus, Estonia and Portugal. Mixed results can be found for Bulgaria, Hungary, Lithuania, Luxembourg and Slovakia. In Bulgaria, all measures increase except for the percentile ratio. In Hungary, Luxembourg and Lithuania, there seem to be equalizing effects at the extremes of the distribution but not in the middle of the distribution, while the opposite effect can be observed in Slovakia. These results indicate that mobility at the bottom and in the upper part of the distribution in Hungary, Luxembourg and Lithuania leads to less inequality. However, workers in the middle of the distribution do not gain from mobility. By contrast in Slovakia, due to mobility the income distribution becomes narrower in the middle of the distribution. However, mobility increases the position of high income earners and worsens the position of low income earners. These results show that the findings strongly depend on the chosen measure. In line with the findings of Hofer and Weber (2002) there are equalizing effects for Denmark, France, Italy and the UK.

The description of earnings inequality based on contemporaneous and averaged labour incomes shows that there are differences in the income distribution and mobility between the

Figure 6.1

Overall earnings distribution



Source: EU-SILC, own calculations. Earnings refer to gross monthly income from labour, truncated at 8,000 €.

countries. For an illustration of the earnings distribution, we display the earnings distribution of all workers in Figure 6.1. It can be seen that there is a wide range of monthly earnings, with 90 per cent of all workers earning less than 4,000 Euros (gross) per month. 50 per cent of the observed workers earn less than 1,230 Euros. Most of the observed variation can be due to differences between the different Member States. We therefore display the income distribution for each of the countries separately. Figures A.6.1 to 6.25 in the appendix display the different earnings distributions. It can be seen that the distributions of earnings in Continental Europe (with the exception of Luxembourg) and in the Scandinavian countries as well as Italy are mostly symmetrical. Therefore, in these countries the density is very high in the middle of the earnings distribution. However, there are substantial differences in the amount of earnings between these countries. While about 50 per cent of all full-time employed workers in France and Italy earn less than 2,000 Euros, the same ratio of full-time employed workers in Norway earn more than 3,800 Euros. By contrast, in France only 10 per cent of workers earn more than 3,800 Euros. Earnings in the United Kingdom and Luxembourg are also very high. However, compared to Norway the earnings distributions are more skewed to the left.

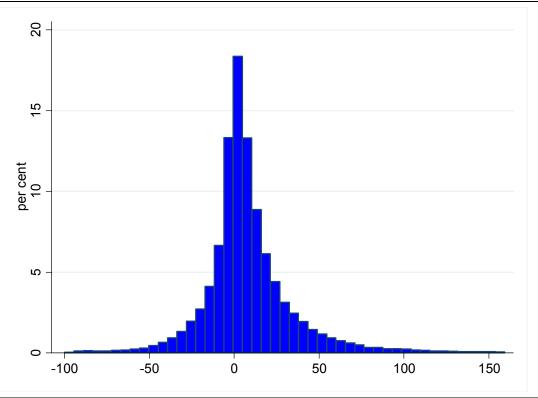
Earnings in the Mediterranean countries are lower than in Scandinavia, Continental Europe and the UK. Furthermore, the earnings distribution is left skewed with the highest density between the second and fifth decile. In many countries of Central and Eastern Europe, the distributions are even more left skewed than in the Mediterranean countries. This is most pronounced in the Baltic States, Hungary and Romania. In those countries the median earnings are about 400 Euros, but only 177 and 250 Euros in Bulgaria and Romania, respec-

tively. Higher earnings can be observed in Poland (median of 530 Euros), the Czech Republic (594 Euros) and especially Slovenia (1,143 Euros).

Overall, the earnings distribution varies between the different countries, but the differences in the absolute values of earnings are even more pronounced. The median full-time employed worker in Norway earns more than 20 times the median earnings of a Bulgarian full-time worker.

Finally, Figure 6.2 presents the income change of all workers from one year to another. It can be seen that the majority of workers experience income increases. More than 18 per cent experience an income increase between 0 and 5 per cent. However, it can also be seen that a substantial part of full-time workers realise income losses of up to 50 per cent. This can be due to real income losses but also to bonus payments that were only paid in one year. Furthermore, there can be errors in the calculation of monthly earnings if there are remembering errors in the calendar.

Figure 6.2 Earnings change from year t to year t+1 in per cent



Source: EU-SILC, own calculations. Earnings refer to gross monthly income from labour, truncated at -100 € and +150 €.

#### 6.3.2 Pay transitions

This subsection gives a descriptive overview of pay transitions by comparing the individuals' relative position in the earnings distribution in year t with the position in year t-1 and year t-2, respectively. Since earnings mobility is likely to be affected by job mobility, the subsequent descriptive analysis distinguishes between pay transitions of workers that stay in the same job, and pay transitions of workers who change jobs from one year to the next.

Table 6.1 presents the yearly transition matrix for full-time employed workers for the entire EU-SILC data base. It becomes apparent that the probability to remain in the same earnings decile (numbers on the main diagonal) is particularly large in the lower and upper tails of the wage distribution. Nevertheless, the transition probabilities suggest that there exists a significant degree of earnings mobility. For example, about 54 per cent of the workers in the bottom decile stay there from one year to the next, while the remaining 46 per cent move up the income distribution. Almost half of the workers in the bottom decile who exhibit upward mobility move by exactly one earnings decile.

Table 6.1 **Transitions between earnings deciles** in per cent

•	DESTINATION											
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
ORIGIN												
1st	53.82	21.78	8.27	5.22	3.64	2.65	1.77	1.30	0.86	0.70		
2nd	16.61	45.18	18.46	8.91	4.21	2.93	1.63	1.01	0.71	0.34		
3rd	5.57	19.40	38.49	18.02	8.36	5.08	2.39	1.35	0.80	0.53		
4th	2.88	7.28	19.42	34.17	19.28	8.28	4.51	2.37	1.21	0.60		
5th	1.79	3.15	7.79	18.62	35.33	18.90	7.57	3.88	2.05	0.91		
6th	1.25	1.90	3.05	7.12	19.46	36.16	18.81	7.95	3.03	1.27		
7th	1.19	1.12	1.98	3.02	6.87	18.67	39.79	18.79	6.43	2.14		
8th	0.87	0.77	1.22	1.91	2.99	6.61	18.14	44.02	19.04	4.45		
9th	0.73	0.47	0.64	0.88	1.49	2.59	4.94	18.14	52.37	17.75		
10th	0.64	0.47	0.40	0.61	0.90	1.17	1.51	3.90	14.44	75.95		
Total	7.42	9.63	9.92	9.99	10.51	10.66	10.47	10.66	10.32	10.43		

Source: EU-SILC, own calculations. - Notes: Total refers to the share in the sample population in period t+1.

Regarding the deciles in the middle of the earnings distribution (i.e. the 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> decile), mobility appears to be somewhat larger. About 35 per cent of workers remain in the same decile, while roughly 30 per cent move up and down the income distribution. These findings are in line with Cardoso (2004) and Burkhauser, Holtz-Eakin and Rhody (1997) that mobility is the highest in the middle of the income distribution. As seen before, the income distributions of all countries are most narrow between the second and fifth decile. Therefore, only small income changes are needed in this part of the income distribution to change from one decile to the next decile. This can explain at least some part of the mobility in the 4<sup>th</sup> and 5<sup>th</sup> decile.

The two-year transition rates are presented in Table 6.2. It can be seen that state dependence is smaller for two-year transitions than for one-year transitions. Furthermore, it can be seen that there are more upward transitions for two-year transitions. These results suggest that those workers with upward transitions are more likely to stay in the higher decile or even improve their position again than those with downward transitions. Furthermore, it can be seen that the workers who are only full-time employed for one year are in a worse situation than those who are full-time employed in two subsequent years. This result indicates that young labour market entrants as well as workers who re-enter employment after inactivity or unemployment are more often at the bottom of the earnings distribution.

Table 6.2 **2-year transitions between earnings deciles** in per cent

	DESTINATION										
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
ORIGIN											
1st	42.53	26.09	11.68	6.41	4.13	3.44	2.07	1.51	1.44	0.70	
2nd	14.49	38.23	22.83	10.40	5.59	3.44	2.32	1.44	0.96	0.31	
3rd	5.26	15.94	30.20	22.63	11.98	5.62	3.63	2.27	1.66	0.80	
4th	3.49	6.57	15.85	27.13	23.58	11.50	6.04	3.45	1.60	0.80	
5th	1.93	4.12	7.79	16.11	27.45	23.53	9.40	5.82	2.54	1.31	
6th	1.90	2.27	3.50	7.00	15.44	29.57	23.43	10.33	4.47	2.09	
7th	1.11	1.76	1.77	3.60	6.29	17.03	32.94	24.31	8.45	2.74	
8th	0.79	0.73	1.16	2.24	4.09	7.08	17.33	38.15	22.29	6.12	
9th	0.77	0.45	0.57	0.97	1.87	3.36	5.28	15.70	49.50	21.48	
10th	0.57	0.39	0.34	0.80	1.04	1.00	1.78	4.41	14.37	75.23	
Total	6.10	8.77	9.17	9.60	10.23	10.90	10.92	11.31	11.33	11.66	

Source: EU-SILC, own calculations. - Notes: Total refers to the share in the sample population in period t+1.

Table 6.3

Transitions between earnings deciles with no job change in per cent

iii pei ee	,,,,,				DESTI	NATION				
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
ORIGIN										
1st	55.44	21.47	7.91	4.83	3.33	2.47	1.65	1.36	0.86	0.68
2nd	16.81	46.44	18.36	8.43	3.74	2.71	1.47	0.98	0.77	0.30
3rd	5.25	19.67	39.64	18.09	7.96	4.65	2.22	1.33	0.70	0.50
4th	2.76	6.91	19.41	35.43	19.27	7.98	4.26	2.21	1.15	0.60
5th	1.65	3.04	7.57	18.97	36.22	18.75	7.42	3.62	1.84	0.91
6th	1.18	1.74	2.92	6.97	19.61	36.96	18.75	7.73	2.97	1.19
7th	1.04	1.07	1.86	2.94	6.78	18.87	40.42	18.79	6.19	2.04
8th	0.73	0.72	1.15	1.76	2.87	6.47	18.31	44.78	18.91	4.30
9th	0.67	0.39	0.56	0.84	1.39	2.44	4.68	18.42	53.21	17.40
10th	0.59	0.43	0.34	0.47	0.80	1.07	1.41	3.78	14.52	76.59
Total	7.11	9.36	9.76	9.96	10.47	10.67	10.56	10.89	10.56	10.66

Source: EU-SILC, own calculations. - Notes: Total refers to the share in the sample population in period t+1.

Table 6.3 presents the transition matrix for job stayers only. The matrix presents the transitions of job stayers in the original distribution of all full-time employed workers (job stayers and job changers). The deciles are calculated on the overall income distribution. The persistence is somewhat larger for job stayers (by up to 2 percentage points) than for the whole sample. It is somewhat surprising that, although only job stayers are considered, downward transitions can be observed to a relatively large extent. This could be due to two reasons. On the one hand, workers may experience a decrease in income from one year to the next. Bonus payments, which are included in the income information, and may strongly vary between years, could be a contributing factor in this context. On the other hand, the position of an individual in the earnings distribution is determined not only by his own wage, but also by the wages of all the other workers in the economy. Therefore, a downward pay transition of job

stayers may be due to the fact that the earnings increases of these job stayers are smaller than the earnings increases of other workers. As a result, they descend in the overall earnings distribution. However, it can be seen that on average, job stayers improve their earnings position.

Transitions are mostly concentrated around the diagonal of the transition matrix, suggesting that workers predominantly move by only one decile. In the top decile, with almost 76.6 per cent of the workers remaining there, the degree of persistence is remarkably high. Moreover, 14.5 per cent of the workers in the top decile change to the 9th decile, while only 8.9 per cent show a greater transition distance, i.e. a larger downward transition.

Table 6.4

Transitions between earnings deciles with job change in per cent

	DESTINATION										
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
ORIGIN											
1st	44.10	23.62	10.40	7.53	5.49	3.67	2.50	0.94	0.89	0.86	
2nd	15.10	35.29	19.29	12.64	7.92	4.69	2.86	1.27	0.26	0.68	
3rd	8.63	16.92	27.84	17.41	12.01	9.11	4.00	1.57	1.72	0.79	
4th	4.12	11.18	19.47	20.68	19.42	11.45	7.20	4.00	1.88	0.60	
5th	3.42	4.49	10.32	14.50	24.82	20.64	9.34	6.94	4.56	0.97	
6th	2.25	4.05	4.74	9.07	17.61	25.83	19.57	10.70	3.79	2.39	
7th	3.26	1.87	3.69	4.15	8.14	15.88	30.88	18.74	9.84	3.55	
8th	3.00	1.41	2.17	4.18	4.93	8.82	15.58	32.31	20.96	6.64	
9th	1.75	1.74	1.93	1.61	3.11	5.00	9.18	13.57	38.56	23.55	
10th	1.36	1.23	1.34	2.96	2.40	2.76	3.05	5.86	13.19	65.85	
Total	10.94	12.56	11.67	10.36	10.92	10.49	9.44	8.14	7.58	7.89	

Source: EU-SILC, own calculations. - Notes: Total refers to the share in the sample population in period t+1.

The yearly pay transition probabilities for job changers are displayed in Table 6.4. It becomes apparent that earnings mobility is somewhat larger when workers experience a job change. While there is also a concentration on the diagonal, which indicates some degree of persistence, these figures are smaller in magnitude. Furthermore, the off-diagonal elements are now considerably higher than the ones for job stayers. For example, 44 per cent of workers in the bottom decile remain there when they change jobs, implying that more than half of them improve their position in the income distribution from one year to the next. With approximately 32 per cent, the average fraction of those who move up by more than one decile is quite large.

One finds even larger wage mobility in the middle of the earnings distribution (4<sup>th</sup> to 6<sup>th</sup> decile), with 20.7 to 25.8 per cent remaining in the same decile and about 45 per cent moving up the earnings distribution. Although most workers change their distributional position by only one decile, the share of job changers who move by more than one decile is somewhat higher than for job stayers. Regarding the top decile, with more than 65 per cent of workers remaining there in two consecutive years, again a high degree of persistence can be observed. From those who move down from the top decile, 13.2 per cent move only to the next decile, while 21 per cent exhibit a greater distance of transition. Overall, more downward than upward transitions are realised.

The comparison of men and women does not reveal any significant gender differences in labour income mobility patterns (see Table A.6.3 in the appendix). Roughly equal shares of male and female workers stay in the same decile (45 per cent) and move up (about 28 per cent) and down (about 27 per cent) the earnings distribution. However, men are more likely to move by more than one decile than women.

Differentiating between age groups shows that the probability (17.8 per cent) of staying in the same decile increases with age. Old workers are the most likely to experience downward transitions of one decile. There are only small differences between the age groups regarding larger downward transitions (9.5 per cent). Upward transitions of one or more deciles are negatively associated with the age of the worker.

Transition probabilities broken down by skill group suggest that the degree of persistence is higher for high-skilled individuals (47 per cent) than for medium-skilled (36 per cent) and low-skilled individuals (35 per cent). The probability to improve or worsen the position in the earnings distribution is lower for high-skilled workers than for low- and medium-skilled workers. The fact that the degree of persistence is the highest for high-skill workers is probably due to their better labour-market prospects. Therefore, they are less likely to worsen their situation. Furthermore, they are currently in a high decile where upward transitions are less likely or even impossible (in the 10<sup>th</sup> decile).

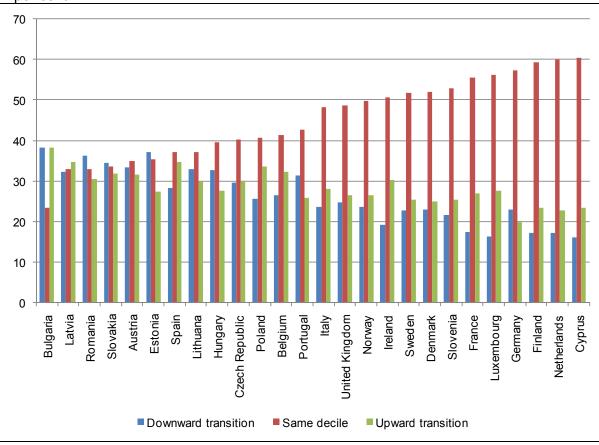
Pay transitions are similar in Continental Europe, Scandinavia, and the UK and Ireland on the one hand, and for CEE and Mediterranean countries on the other hand. The degree of persistence, measured by the share of workers who remain in the same earnings decile, is the highest for Scandinavian countries (53.4 per cent) and Continental countries (52.3 per cent), while it is substantially lower for CEE countries (37.4 per cent) and Mediterranean countries (40.6 per cent). In the Continental countries, the probability to move upward by one (16.9 per cent) or more deciles (7.9 per cent) is somewhat higher than the probability to move down by one or more deciles (14.8 per cent and 7.1 per cent, respectively). A similar pattern can be observed for all other country groups except for CEE. In Central and Eastern Europe, the share of workers that improve their distributional position by one and more deciles is equal to the share of workers whose position becomes worse.

While these figures on country groups provide interesting information about cross-country differences in wage mobility, further insights can be gained by analysing the countries separately. It becomes apparent (see Table A.6.4 in the appendix) that on the one hand, there are countries with a relatively high degree of persistence. Figure 6.3 presents the transition rates for the individual countries. In Cyprus, Finland and the Netherlands, for example, about 60 per cent of all workers do not move between earnings deciles from one year to the next. Other countries from EU 15 feature similarly high figures in this respect. On the other hand, a relatively high share of workers in almost all countries from Central and Eastern Europe (with the exception of Slovenia) makes an earnings transition from one year to the next. This is also the case for Austria and Spain which are quite different from the other EU 15 countries with respect to wage mobility. The lowest persistence is observed for Bulgaria (23.3 per cent). Furthermore, it can be seen that in most countries more workers experience upward transitions than downward transitions. The opposite is true for Romania, Slovakia, Estonia, Austria, Lithuania, Hungary, Portugal and Germany. The probabilities to move by two or more deciles in both directions are quite different to those obtained by Pavlopoulus, Muffels

and Vermunt (2005). While the probability is much higher in Austria and Portugal it is significantly lower in Denmark and the Netherlands.

The transition rates for different countries are displayed in Figure 6.3. It becomes apparent that there are also large cross-country differences for the probabilities of staying in the same decile. In particular, the probability of remaining in the same decile ranges from 32.0 per cent (Slovakia) to 62.4 per cent (Netherlands). The overall picture is similar to that of job stayers. Workers in Central and Eastern Europe are less likely to stay in the same decile. However, job changers in Central and Eastern Europe are more likely to make a downward transition than to make an upward transition. This stands in contrast to all other countries except for Germany, Sweden and the UK. The probability of making an upward transition is lowest in Germany (19.5 per cent) and highest in Spain (33.6 per cent), while the probability of making a downward transition is lowest in the Netherlands (17.0 per cent) and highest in Estonia (36.2 per cent).

Figure 6.3 **Transitions between earnings deciles by country** in per cent



Source: EU-SILC, own calculations.

The analysis of two-year transitions (see Table A.6.5 in the appendix) shows that the differences between countries become smaller when 2-year transitions are observed. Although the differences between the countries are smaller, it still can be observed that the EU 15 countries, Cyprus and Slovenia experience relatively low mobility in earnings while the New Member States, Austria and Spain feature higher mobility. In Bulgaria only small differences between the one-year and two year transitions can be observed. This result indicates that

although there is low short run persistence, workers are very likely to return to their original decile again. This can be due to the very narrow income distribution in Bulgaria. By contrast, the probability of upward transitions sharply increases in the medium run in Cyprus. This result indicates that upward transitions are more stable than downward transitions. By contrast, in Ireland downward transitions seem to be more stable. In Denmark and Hungary both types of transitions are very stable.

Finally for the descriptive analysis, we present evidence on the size of pay transitions for all workers, i.e. for both job stayers and job movers. For this analysis, the average decile movement is computed. The average decile movement is calculated as the average number of deciles (upwards and downwards) that workers move between year t-1 and year t:

$$\sum_{i} \sum_{t} \frac{\left| dec(y_{it}) - dec(y_{it-1}) \right|}{n_{t}}$$

where  $y_{it}$  is the monthly labour income of person i in year t and  $dec(y_{it})$  is the respective decile. The number of persons in year t is denoted by  $n_{t}$ .

It becomes apparent that the average decile movement for job movers is much larger (1.37 deciles) than for job stayers (0.93 deciles) (see Table A.6.6 in the appendix). For both, job stayers and job movers, the average decile movement is somewhat higher for men (0.94 and 1.43 deciles, respectively) than for women (0.91 and 1.27 deciles, respectively). Young workers experience the largest decile movements while old workers experience the smallest movements.

Workers' skills are also correlated with the size of pay transitions. For both groups, job stayers and job changers, the average decile movement decreases with the skill level. Looking at cross-country differences, the average decile movement is the highest in the Central and Eastern European countries (1.15 deciles) and the Mediterranean countries (1.10 deciles). The movement is much lower in the Continental and Scandinavian countries (0.76 and 0.75 deciles, respectively). These differences between the country groups can be observed for job stayers and job changers. In all country groups, job changers experience larger movements. Indeed, it can be seen that the average decile movement of job changers is very small in the UK and Ireland (1.10 deciles). In these countries differences between stayers and movers are the smallest.

Analysing the size of pay transitions by country group may mask differences between individual countries. We therefore investigate pay transitions at the country level, too. As Figure 6.4 makes clear (see also Table A.6.7 in the appendix), there exist important cross-country differences. The average decile movement ranges from 0.54 deciles for Cyprus and the Netherlands to 1.8 deciles for Bulgaria. The relative differences of the size of transitions of job changers are similar or even larger. For example, the smallest decile movement of a job mover is 0.78 (Luxembourg), the corresponding largest decile movement is 2.4 (Bulgaria). In all countries the average movement of job changers is higher than the average movement of job stayers. Similarly to the patterns observed for the probability of making a decile movement, CEE countries experience larger income decile movements while EU 15 countries experience smaller decile movements. Exceptions are again, Austria, Spain and

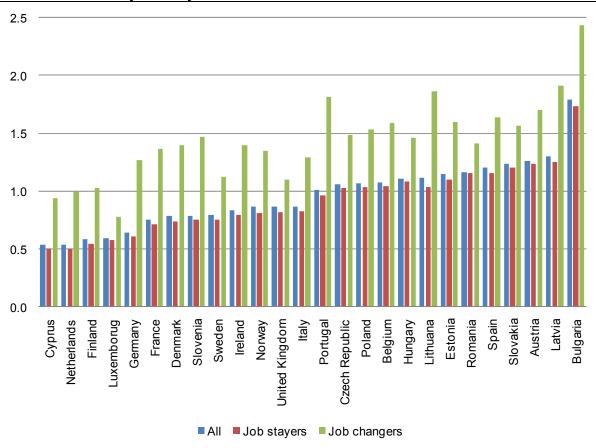


Figure 6.4 **Decile movement by country** 

Source: EU-SILC, own calculations. – Note: The decile movement is the average number of deciles (upwards and downwards) that workers move between year t-1 and year t.

Slovenia. The observed movement for France is similar to the findings of Buchinsky, Fields, Fougère and Kramarz (2003).

## 6.3.3 Inequality and Mobility

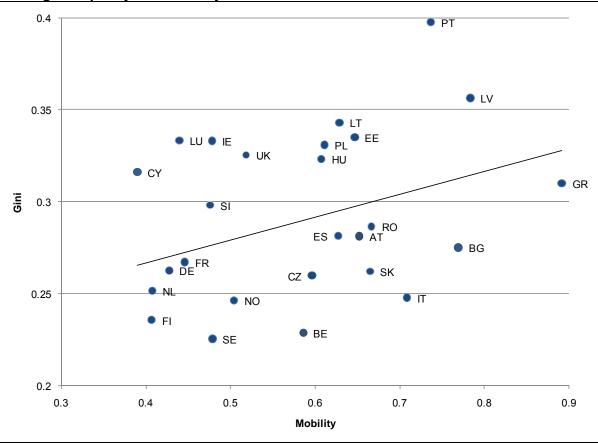
As pointed out in Section 6.1, earnings mobility can play an important role for earnings inequality, and also how the latter is viewed. First of all, mobility can lead to an equalisation of incomes over the longer term. This is the case if transitory upward or downward transitions in the wage distribution are reduced or even overcompensated by subsequent transitions in the opposite direction. Second, a relatively high degree of wage inequality – i.e. an uneven equality of outcomes – may appear more acceptable if wage mobility is high, which could reflect a high degree of equality of opportunity (cf. Nozick 1974, Rawls 1999). Mobility compensates some part of the existing earnings inequalities.

In order to shed some light on these issues, we perform a graphic analysis of the relation-ship between pay inequality and pay mobility at the national level. We thus depict average pay inequality in terms of the Gini coefficient, as well as average pay mobility for the EU-SILC countries in Figure 6.5. Mobility is measured by the share of individuals making a pay transition from one year to the next in the total number of employees. The straight line denotes the linear relationship between the two variables. Countries above the line display relatively high inequality for a given degree of mobility, and relatively low mobility for a given de-

gree of inequality. For countries below the line, the opposite is true. One could therefore argue that the latter countries feature a more favourable ratio of mobility to inequality.

The results displayed in Figure 6.5 yield several insights. First of all, there is a weak positive relationship between inequality and mobility. Therefore, over the EU-SILC countries considered, higher pay inequality at the country level is associated with a higher probability of making a pay transition. This is in line with the above finding that for most EU-SILC countries, inequality is higher in the short run than in the medium run, because upward or downward transitions in one year are often undone by transitions in the opposite direction later. Second, the relationship between inequality and mobility seems to be more favourable for some country groups than for others. For example, the Scandinavian countries display a relatively low inequality-to-mobility ratio. The same is true for the Netherlands, but also Italy and Spain. By contrast, inequality relative to mobility is higher in the UK and Ireland, Portugal, and many CEE countries such as the Baltic States, Poland and Hungary. The Czech Republic and Slovakia are exceptions in this respect, featuring relatively low inequality.





Source: EU-SILC, own calculations. – Notes: Gini is the Gini coefficient, mobility is measured by the share of employees making a pay transition from one year to the next relative to the total number of employees.

Furthermore, it can be seen that (except of Bulgaria) those countries where mobility even increases inequality like Estonia and Portugal (see Section 6.3.1) are above the line and therefore experience relatively low mobility compared to cross-sectional inequality. By contrast the countries with a strong equalizing effect of mobility are characterized by a high mobility in relation to inequality.

#### 6.3.4 Econometric Results

#### Pay transition probabilities

The last subsection presented descriptive results on transitions between earnings deciles and their variations across demographic groups. In the subsequent econometric analysis, we want to gain better insights into the importance of job mobility and person characteristics for pay transitions. In a first step, we therefore estimate a multinomial logit model, where the following three categories are examined: downward mobility (moving down the income distribution by one or more deciles), upward mobility (moving up by one or more deciles) and no mobility.

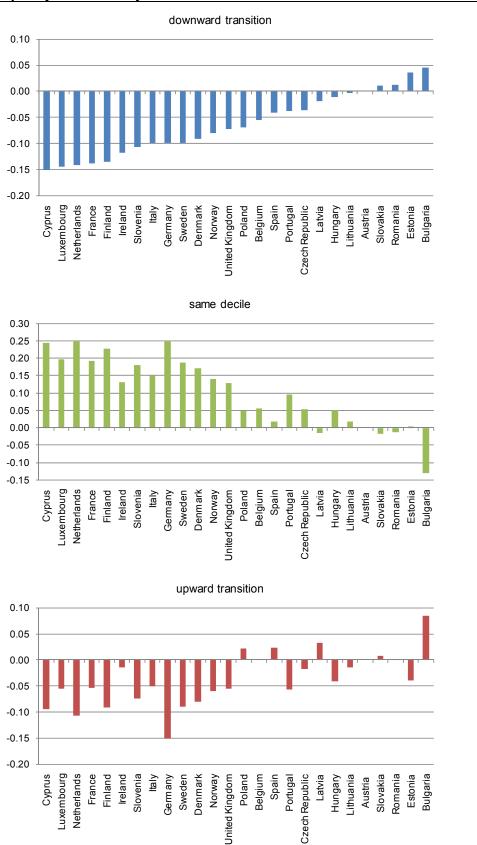
The results suggest that men are more likely to move up the earnings distribution than women (see Table A.6.8 in the appendix). The coefficients for age groups reveal that the probability of moving up the income distribution is lower for older workers than for the other groups, which seems quite intuitive since most of lifetime wage growth occurs during the early stages of a worker's career. For downward transitions, the estimation results do not reveal age-specific differences.

Compared to singles, married workers are more likely to remain in the same decile and less likely to make an upward transition. No differences between workers living with a partner and singles can be observed. Regarding the skill level, it can be seen that high-skilled workers are least likely to change deciles in both directions, and therefore most likely to remain in the same decile. Household characteristics, such as the number of small children and elderly people in the household, are negatively correlated with the probability to stay in the same decile. Workers with a full-time employed partner are less likely to stay in the same decile than workers with an inactive or unemployed partner.

Worker's experience of a job change is negatively associated with the probability of income persistence compared to job stayers, with workers that change jobs through non-employment having the lowest probability to stay in the same decile. This goes together with the result that job changers are more likely to make upward and downward income transitions than job stayers. In particular workers who change jobs directly have the highest probability of upward pay transitions, while those who change indirectly exhibit the highest probability to move downwards. This is in line with Bachmann, Bauer and David (2010), who find that direct job changes increase wages, while indirect job changes adversely affect wages. However, their probability to move upwards is also higher than that of job stayers. These results are quite intuitive, since direct job changes to a large part probably occur for voluntary reasons and therefore entail a wage increase. Contrary to this, indirect job changes lead to a decrease in wage since they are more likely to occur for involuntary reasons.

As indicated by the estimation results displayed in Figure 6.6, the Netherlands, Germany and Cyprus exhibit the highest degree of income persistence. In particular, Dutch and German workers are most likely to stay in the same earnings decile and least likely to experience an upward transition. In contrast to this, workers in Bulgaria face the lowest probability of staying in the same decile and the highest probability to change to lower as well as higher income deciles. A relatively high probability to move down the earnings distribution can also be observed for the other countries in Central and Eastern Europe, such as Estonia, Roma-

Figure 6.6 **Earnings inequality and mobility** 



Source: EU-SILC, own calculations. – Notes: Gini is the Gini coefficient, mobility is measured by the share of employees making a pay transition from one year to the next relative to the total number of employees.

nia and Slovakia. Besides Bulgaria, the probability of upward transitions is the highest in Latvia, Spain and Poland. Summed up, the ranking of countries stays more or less the same when controlling for socio-demographic factors.

In the extended analysis with occupations, some correlations between the occupational group and the transition probabilities can be observed (see Table A.6.9 in the appendix). It can be seen that workers who work as legislators, senior officials and managers are most likely to stay in the same decile. Plant and machine operators and assemblers are the most likely of downward pay transitions while craft and related trade workers are most likely to improve their earnings position.

Up to now, we have estimated multinomial logit models for job movers and job stayers together. In doing so, we have implicitly restricted the impact of covariates to be the same for job stayers and job changers. In order to take into account differences between these two groups, we also estimate the multinomial logit model separately for workers who have changed jobs from one year to the next. The estimation results (see Table A.6.10 in the appendix) reveal only small differences to those obtained for the entire sample. However, it can be observed that there are no differences between skill groups in the probability of upward transitions. In contrast to the overall results, the probability to stay in the same decile is not significantly different between married and single workers. Somewhat surprisingly, a comparison of direct and indirect job changers does not reveal significant differences in income transition probabilities. There is no significant relationship between the number of children in the household and the transitions probability of job changers.

The country-specific effects are very similar to those in the overall estimation. It can be observed that job changers in Germany have the highest degree of income persistence, while job changers in Bulgaria are most likely to leave the initial income decile. Regarding the probability to experience an upward transition, the opposite is true: it is exceptionally high in Bulgaria and the lowest in Germany. Job changers in Hungary are the most likely to worsen their situation, while job changers in Ireland are the least likely to worsen their income position. In sum, comparing the estimation results for job changers and the whole sample population does not reveal large differences.

While the analysis of country dummies gives some insights into how income mobility varies by country, it restricts the impact of personal characteristics to be the same across all countries. We therefore estimate the multinomial logit model separately for the different country groups as they were defined above.

The estimation results for Continental Europe (see Table A.6.11 in the appendix) reveal only small differences to the analysis for the entire sample. Compared to the overall results, where the number of elderly in the household has been found to be negatively correlated with income persistence, now no relationship can be observed. Furthermore, workers living with a partner are more likely to descend the pay distribution than singles.

The estimated coefficients for the Scandinavian countries suggest that there are differences in persistence between men and women (see Table A.6.12 in the appendix). Women are more likely to stay in their initial decile. Furthermore, compared to medium-skilled workers, low-skilled workers are more likely to remain in the same decile. Moreover, we cannot observe that the probability to move or to stay in the income distribution is significantly correlated with the number of elderly persons in the household. Workers with a part-time em-

ployed partner are more likely to stay in the same decile than workers with a non-working partner. Apart from that, the estimated coefficients are quite similar to those obtained for the whole EU-SILC sample.

There are some differences for the Mediterranean countries to the overall results regarding the age of the worker (see Table A.6.13 in the appendix). Middle-aged workers are the least likely to experience downward transitions while young workers are the least likely and high-skilled workers are the most likely to stay in the same decile. With respect to household characteristics, the results strongly differ from the overall results. In particular, while married workers again have the highest probability to remain in the same earnings decile, workers living with a partner also show a higher degree of earnings persistence than singles. This goes together with a lower probability to move down the earnings distribution. The number of small children and having an employed partner are positively correlated with the probability to make a downward transition. The number of elderly persons is not correlated with transition probabilities. Furthermore, the results suggest that job changers are more likely than job stayers to make a downward transition.

The estimation results for Central and Eastern Europe suggest that women are more likely to make a downward transition than men (see Table A.6.14 in the appendix). However, there are no differences in earnings persistence between men and women. Workers living with a partner experience a lower probability to move upward than singles. In contrast to the overall findings, no significant relationship between the number of elderly persons in the household and the transition probabilities can be observed.

The estimation results for the UK and Ireland are very similar to those obtained for the entire sample. However, in contrast to the overall results, men in the UK and Ireland are less likely to move downwards than women (see Table A.6.15 in the appendix). Furthermore, the probability to experience a downward earnings transition increases with age while the probability of an upward transition decreases with age. Workers living with their partner and who are not married experience the lowest persistence compared to singles and married workers. Moreover, in the UK and Ireland, the presence of a full-time employed partner is negatively correlated with the probability to remain in the same earnings decile, and significantly positively correlated with the probability to move up or down the income distribution. The opposite is true for the presence of a part-time employed partner, which is positively correlated with the probability of labour income persistence.

Besides the transitions between two consecutive years, we also analyse the two-year transitions. Note that in this part of the analysis, only those workers that are observed for at least three years are analysed. Therefore, the regression sample differs to the sample used for one-year transitions. The findings suggest that there are only small differences to the one-year transitions (see Table A.6.16 in the appendix). Men are more likely to stay in their initial decile and are less likely to move downward than women. Furthermore, middle-aged workers are the most likely to stay in the initial decile. Additionally, low-skilled workers are more likely to improve their situation than medium-skilled workers. These results suggest that upward transitions of middle-aged workers are less permanent than those of young workers, while upward transitions of low-skilled workers are more permanent than those of medium-skilled workers. The same is true for workers living with a full-time employed partner who have more permanent upward and less permanent downward transitions than workers with part-time employed or non-employed partners. Finally, it can be seen that the positive effects of direct

job changers in relation to job stayers fades out in the medium run. This is consistent with Oreopoulos, von Wachter and Heisz (2008) as well as Bachmann, Bauer and David (2010) who examine the long run effects of initial labour market conditions on wages. Their findings suggest that wage disadvantages fade away, implying that wages converge in the longer run.

To get some further insights into the stability of transitions, we investigate the transition probability of the workers dependent on their previous transition. Therefore, the first transition of each worker is excluded from this analysis (see Table A.6.17 in the appendix). The results suggest that workers with a downward transition in the previous year are more likely to move upwards than workers who did not change the decile before. Furthermore, they are less likely to stay in the same decile and to move downwards. By contrast, workers with a previous upward transition are more likely to experience a downward transition while they are less likely to stay in the decile or move upward again.

## The distance of pay transitions

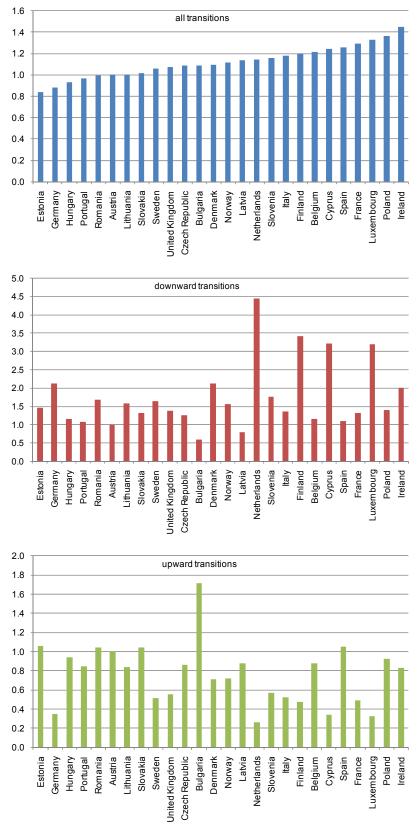
The econometric analysis presented up to now has distinguished between upward transitions, stayers and downward transitions. The second step of the econometric analysis aims at investigating the determinants of the distance of pay transitions, by using the number of deciles a worker moves upward or downward, respectively, as the dependent variable. In order to take into account the ordinal nature of this variable, an ordered logit model is estimated. The analysis is conducted for all workers, those with upward transitions and those with downward transitions. In these specifications the number of deciles is negative for downward transitions and positive for upward transitions.

It can be seen that men experience stronger improvements than women which is the result of larger upward transitions and larger downward transitions than women (see Table A.6.18 in the appendix). Young workers experience smaller changes when they move upwards than middle-aged and old workers.

Regarding the family status, married workers display lower earnings gains than singles, which is due to smaller upward transitions of this group. Workers with a partner show no significant differences to singles. High-skilled workers move less deciles when they move downwards than medium-skilled workers, while low-skilled workers feature larger downward movements.

Both direct and indirect job changers experience larger transitions when they move upwards and when they move downwards. Summed up, direct job changers experience larger labour income gains than job stayers and workers with an indirect change. Figure 6.7 presents the estimated odds ratios. Upward transitions in the earnings distribution are largest in Ireland France and Luxembourg, and lowest in Estonia, Germany and Hungary. However, these differences are due to different factors. While workers in Luxembourg have very small earnings losses, German workers have very small earnings gains. For the other countries mentioned above, the probability of upward and downward transitions seems to be most decisive. The smallest income losses can be observed for the Netherlands and the largest for Bulgaria. Regarding upward transitions, it is the other way round. Summed up, for all workers both countries are in the middle of the distribution.

Figure 6.7 **Country fixed effects of distance of earnings transitions** 



Source: EU-SILC, own calculations. Earnings refer to gross monthly income from labour, truncated at -100 € and +150 €.

The country dummies included in the regressions indicate that there are large differences between the countries. However, these dummy variables only capture level differences between countries. At the same time, in these regressions we assume the relationship between socio-demographic and household characteristics and the distance of transitions to be the same in all countries. In the next step of the analysis, we therefore estimate the relationship separately for the above defined country groups. The results for Continental Europe are very similar to the overall results (see Table A.6.19 in the appendix). Regarding gender, however, there are no differences between men and women in Continental Europe. Moreover, low-skilled workers experience similar gains and losses as medium skilled workers while high-skilled workers experience higher overall income gains than these two groups.

In Scandinavian countries men have smaller downward transitions than women (see Table A.6.20 in the appendix). In contrast to the overall findings, singles have smaller downward transitions than workers living with their partner or spouse. Regarding the skill level, there are no differences between the groups in their extent of transitions.

Middle-aged workers in Mediterranean countries have smaller downward transitions than young workers (see Table A.6.21 in the appendix). The transitions of high-skilled workers are smaller than those of low-skilled workers. This is mainly due to the fact that high-skilled workers experience smaller upward transitions and do not differ from low-skilled workers regarding downward transitions.

The estimation results for Central and Eastern Europe show only small differences to the overall results (see Table A.6.22 in the appendix). However, low-skilled workers experience higher upward transitions and therefore larger overall improvements than medium-skilled workers. Workers with a medium skill level do not differ from workers with high skills.

In the UK and Ireland, young workers experience the largest transitions (see Table A.6.23 in the appendix). Furthermore, it can be seen that workers living with a partner (married or unmarried) display larger upward transitions than single workers. Finally, the overall distance of transitions increases with the skill level.

Additionally to the specification presented above, the occupation in the initial year and a dummy variable indicating whether someone changed his occupation group are included (see Table A.6.24 in the appendix). The results suggest that there are only small differences between the occupational groups. Clerks as well as craft and related trade workers experience larger gains than the reference group of legislators, senior officials and managers. Workers who change their occupation have larger downward transitions but also larger upward transitions than those without a change in occupation.

Finally, for the entire sample the previous pay transition is included in the analysis. The results suggest that those with a preceding downward or upward transition experience smaller downward transitions than those without a change (see Table A.6.25 in the appendix). Additionally, workers who moved downward in the previous year have larger upward movements than those who did not change their income position in the previous year.

#### 6.4 Conclusion

In this task, we analyse earnings inequality and pay transitions of full-time workers. This analysis supplements the analyses of the previous tasks that investigate mobility between

labour market or employment states. By contrast, in this task only mobility in this one employment status is analysed.

There are substantial differences between the different Member States regarding earnings inequality. There is only low inequality in Denmark, Belgium, Finland and Sweden, whereas inequality is high in Portugal, Latvia, Ireland, Lithuania and the United Kingdom.

To get some impression if the observed earnings inequality is just a snapshot or if it is persistent, we also calculate earnings inequality on a four-year basis. In the majority of countries, inequality derived on this average labour income is lower than on the basis of yearly earnings which indicates that mobility reduces inequality. However, there are also countries with a different finding, such as Cyprus, Estonia and Portugal. In these countries inequality is even increased by mobility.

In the analysis of pay transitions, the individual's relative position in the wage distribution in year t is compared to the position in year t-1 and year t-2, respectively. The probability to remain in the same earnings decile is particularly large at the lower and upper tail of the monthly wage distribution while mobility is the highest in the middle of the income distribution. State dependence is smaller for two-year transitions than for one-year transitions and the share of upward transitions increases: workers with upward transitions are more likely to stay in the higher decile.

There are large differences in mobility between countries. The degree of persistence is the highest for Scandinavian countries and Continental countries, while it is substantially lower for CEE countries and Mediterranean countries. The differences between countries become smaller for 2-year transitions.

The probabilities of upward and downward transitions as well as of no transition are estimated using a multinomial logit model. The results suggest that men are more likely to move up the earnings distribution than women and that older workers are less likely to move up the earnings distribution. Regarding the skill level, high-skilled workers are least likely to change deciles. Household characteristics, such as the number of small children and elderly people in the household, are negatively correlated with the probability to stay in the same decile. Job changers have a lower persistence than job stayers.

The analysis of 2-year transitions leads to similar results. Furthermore, upward transitions of low-skilled workers are more permanent than upward transitions of medium-skilled workers. Workers living with a full-time employed partner have more permanent upward and less permanent downward transitions than other workers with a partner. Furthermore, it can be seen that the positive effects of pay transitions for direct job changers in relation to job stayers fades out in the medium run. Workers with a downward transition in the previous year are more likely to move upwards in the next year, while workers with a previous upward transition are more likely to move downwards.

The second step of the econometric analysis aims at investigating the determinants of the distance of pay transitions. Men experience stronger improvements than women while young workers experience the smallest changes when they move upwards. High-skilled workers move less deciles when they move downwards than medium-skilled workers while low-skilled workers display larger downward movements.

### 7. Task 6: Issues of Data Quality and Comparability in EU-SILC

#### 7.1 Introduction

Individual data for all EU Member States are very important for economic research. National data sets have the advantage of generally large number of observations and that the structure is well adapted for the settings of the respective country. However, the use of national data leads to problems in the comparability between countries and therefore for cross-country analyses. Due to these requirements, the European Union Statistics on Income and Living Conditions (EU-SILC) aim to be comparable for all EU countries and to achieve a high quality standard which is defined by data accuracy, detailedness, timeliness, comparability between subgroups/regions and clarity.

The EU-SILC data set covers two different types of data: the cross-sectional and longitudinal micro data set. The five tasks of this project are based on the longitudinal version of EU-SILC. The aim of this chapter is to provide a summary of experiences and problems made while working with the data set, and to report advantages and disadvantages of the data. Data quality and the comparability to the EU-LFS will be in the focus of this final analysis. Furthermore we describe our data preparation and compare the results to the EU-LFS. Finally, we make suggestions and recommendations to improve the quality of the data.

#### 7.2 Data Design and data preparation

In this section, we describe the data design of the EU-SILC data and its consequences for data preparation. The data versions delivered to us contained cross-sectional data for the years 2004 to 2008 as well as longitudinal files for the years 2005 to 2008 (L2005-L2008). Each database consisted of four separate text files, two household and two personal files, containing comma-separated values. Due to the advantage of panel data over cross-sectional data in econometric analyses, in particular for the measurement of labour market dynamics which are the focus of this study, we concentrated on using the longitudinal files, containing observations for the years 2004-2008. For some countries, information is available for a shorter period (see Table A.7.1 in the appendix). Data for the whole period are available for Austria, Belgium, Estonia, Spain, Finland, Ireland, Italy, Luxembourg, Norway, Portugal and Sweden. For all other countries, 4 years are available except for Bulgaria (2006-2008), Germany (2005-2006) and Romania (2007-2008).

To use the data in Stata (along with SPSS the software most widely used in economics and social sciences), the data had to be transformed into the necessary format. After conversion, all variables were labelled according to the description of the documentation "SILC User Database Variables" for the respective years distributed by Eurostat (EUROSTAT 2009, EUROSTAT 2008), which presented a considerable effort. In this process, some minor discrepancies regarding missing variables or values occurred:

- In the 2007 longitudinal file, the variable PY030G (in the data file L07P) is missing. Furthermore, Variables HY081G/HY081N are included in the data file L07H, but not listed in the variables description.
- There exist different descriptions of the variables ("DESCRIPTION OF EU-SILC User DATABASE Variables – Version 2007.1 from 01-03-09" and "EU-SILC US-ER DATABASE DESCRIPTION – Version 2007-1 from 01-03-09").

- Flag descriptions (reasons for missings in the data) are not complete for some variables: hy145n\_f ("-5" undefined), pl140\_f ("-4" undefined), py020\_g/ py020\_n ("-2" undefined).
- For disclosure control reasons, the data set does not include longitudinal 2007 and 2008 data for Germany. For Denmark, France, Greece and Iceland, no information for 2008 is available in the data version we received on 04.10.2010. According to the corresponding email from EUROSTAT, the longitudinal 2007 file also does not contain Danish, Irish and Greek data for data quality reasons. However, these countries are included in the delivered data.
- For some countries, the actual duration of the longitudinal data differs from the one stated in the data description (Denmark: 2004-2007 instead of 2005-2007, Portugal: 2004-2007 instead of 2005-2007).
- For Germany in 2006, the variable PL030 (economic status) consists of four instead of nine categories, for which the definitions are unknown. This is due to an error in the coding. DESTATIS sent us a correction of variable PL030 in a revision of the 2006 longitudinal data to Eurostat on 10.03.09. However, the last release of the 2006 longitudinal data to researchers was done on 01.03.09, without however making this correction of the variable of the economic status. Since Germany did not allow the release of the longitudinal 2007 and 2008 data that contains data for 2005, 2006, 2007 and 2008, the revision was never included in the data offered by Eurostat. Therefore, it is not possible for researchers to analyse the labour market status of Germans in 2006. However, after some correspondence with Eurostat, they revised this single variable but only for the current project.
- The data description for the 2008 wave (EUROSTAT 2008) does not match with the 2008 data. Instead, the variables are coded as described in the 2007 variable description.

After labelling the data, the four separate files were merged together, using the variables country, year, household ID, and personal ID as link variables. Finally, the different longitudinal data sets were also merged together.

The EU-SILC panel is a rotational panel (except for Luxembourg) which is comparable to the Current Population Survey (CPS) for the US. In a rotational panel the same persons are interviewed for a certain time period (4 years) and each year one guarter of all respondents are replaced by new respondents. The EU-SILC data structure is a rotational panel with four rotational groups (for almost all countries). The integrated design consists in selecting four panels at the first wave. Each subsequent year, a panel is dropped and replaced by a new replication. This enables us to follow persons over 2, 3 or 4 consecutive years. Therefore, each person is interviewed up to four times, while the number of persons stays stable over all periods. Figure 7.1 shows the panel structure of the EU-SILC data for a country that first starts in 2004. Of the individuals interviewed in 2004, three quarters are also interviewed in 2005 while the first group is replaced by a new subsample (1'). In the following year another quarter of individuals (group 2) are replaced by a new group (2'), and so on. Therefore, in 2007 only 25 per cent of the original sample, interviewed in 2004, is still interviewed. This fraction is zero in the 2008 wave. Group 4 is the first group that is interviewed over a four year period. Therefore, for countries with data availability from 2004 to 2008, two rotational groups (group 4 and group 1') are interviewed four times. However, the data sets that are distributed by Eurostat do not cover all of these rotational groups.

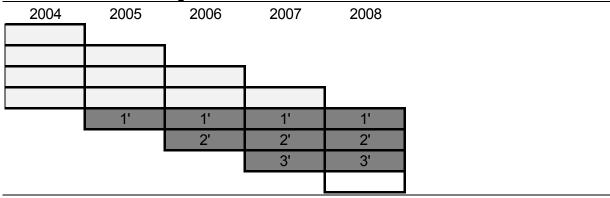
Figure 7.1

The integrated design of EU-SILC

ine miegra	tou doorgii s	<u> </u>		
2004	2005	2006	2007	2008
1		_		
2	2		_	
3	3	3		_
4	4	4	4	
	1'	1'	1'	1'
·		2'	2'	2'
	·		3'	3'
		·		4'
	2004 1 2	2004 2005 1 2 2 3 3 3 4 4	1 2 2 3 3 3 4 4 4 1' 1'	2004     2005     2006     2007       1     2     2       3     3     3       4     4     4     4       1'     1'     1'     1'       2'     2'     2'

For a given year, the respective longitudinal file available from Eurostat only contains those respondents that were interviewed both in the respective year and in the preceding year. This means that in the 2008 longitudinal wave, information is only included for those individuals who were interviewed at least in 2008 and 2007. Individuals, who were interviewed in 2004, 2005 and/or 2006 but not in 2008, are not included in the 2008 longitudinal wave. Figure 7.2 illustrates the panel groups with dark grey that are included in the 2008 longitudinal file, which is the most current one. This figure shows that only 25 per cent of all interviews conducted in 2005 are reported in the 2008 longitudinal file, and there are no observations for 2004 at all. Therefore, this way of constructing the longitudinal data set leads to an important loss of observations, and as a consequence the number of observations becomes relatively small. This becomes especially important for small countries, where the original sample is small to start with.

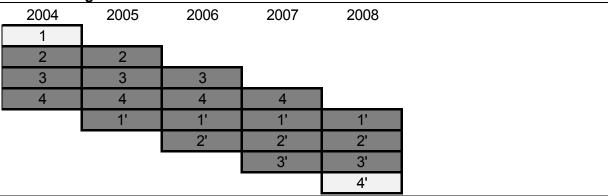
Figure 7.2 **Structure of the 2008 longitudinal data file** 



To construct a data set with as many observations as possible, we combine the longitudinal files for 2005, 2006, 2007 and 2008. For those observations that are included in several longitudinal files, we keep the observation of the most recent panel version. Figure 7.3 presents the composition of our resulting data set for the countries that are observed for the entire time period 2004-2008. It can be seen that all observations are included except for the ob-

Figure 7.3

The resulting estimation data set



servations of group 1 and the 2008 observations of group 4'.<sup>28</sup> Therefore, in 2004 and 2008 three quarters of all observations are included in our resulting data set, while all the observations for the years 2005 to 2007 are included. More generally, only one quarter of observations of the first year and one quarter of the last year are missing when using our proposed procedure of constructing the data set.

Finally, we have about 1.4 million observations in the data set. It can be seen in the overall distribution of observations that in the first and in the last year for which we observe a country, the smallest number of observations is recorded (see Table A.7.2 in the appendix). Therefore, more than 300,000 individuals are observed in the years 2005 to 2007, while we only observe roughly 158,000 in 2004 and 224,000 in 2008.

In some countries, only one person, the "selected respondent" answers the questionnaire for his/her entire household. This is true in all Scandinavian countries, as well as Ireland, Iceland, the Netherlands and Slovenia. Although most information is available for all persons, some indicators, especially the calendar data, are only available for the selected respondents. Therefore, the number of observations decreases if variables affected by this selection process are used (see Table A.7.3 in the appendix). Especially for Iceland, the number of observations becomes very small.

In survey data weights are used when the survey is not representative for the whole population. Weights cover the information how many individuals in the whole population are represented by a single individual. Therefore, those groups that are underrepresented in the data have a higher weight since they represent more people in the whole population. To account for this new data structure, the delivered weights have to be adopted since they are made for the design with fewer observations used by Eurostat. The aim is that the weights are designed in such a way that the observations represent the whole population. In the data provided by Eurostat, longitudinal weights and the so-called base weights are reported. "The base weights are the back spine for the computation of both cross-sectional weights and longitudinal weights. They are computed and updated for a single panel..." (EUROSTAT 2008). Longitudinal weights take the time period for which a transition is computed into account. Therefore, the 2-year longitudinal weight is necessary for transitions between t-1 and

<sup>&</sup>lt;sup>28</sup> The reason for not including these two groups is that we only observe them for one year, which means that we cannot use them for many analyses concerning labour market transitions.

t, while the 3-year longitudinal weight is used for transitions from t-2 to t. The weights are only available for the observations in t and not for the earlier waves.

The longitudinal weights are taken from the different longitudinal data files (L2005, L2006, L2007 and L2008) provided by Eurostat. We take the weights of L2008 for the year 2008, the weights of L2007 for the year 2007 and so on. In 2005, the base weights correspond to the 2-year longitudinal weights. For those observations that are not included in the respective data file, we take the weights of the subsequent file. Summed up, for one-year and two-year transitions, the 2-year and 3-year longitudinal weights are taken from Eurostat. Due to the merging process of the data sets, we observe more observations than in the original files. Particularly, it has to be taken into account that in the first and last year only 3 of four rotational groups are included in the data set. Therefore, we adjust the weights that always the whole population of each country is represented by the observations included in the data.

In addition to the yearly data which allows us to observe transitions from one year to the next, we generate a monthly data set which is based on the calendar information. Therefore, it is necessary to generate longitudinal weights for this new data set, too. We only generate two-month (from t-1 to t) longitudinal weights. Longitudinal weights take panel attrition into account. However, between the months January to December no panel attrition occurs, because the calendar information for one entire year is given retrospectively by the survey respondents. Therefore, panel attrition and the new composition of respondents have to be taken into account only between December and January. This means that cross-sectional weights are sufficient for the transitions between all months with the exception of the transition between December and January. However, cross-sectional weights are not provided in the longitudinal data set. We therefore define the new weights on the base weights. In this procedure, we aim at reproducing the procedure used by Eurostat. For this approach, rotational structures in the different countries and years have to be taken into account. France, Norway, the Czech Republic and Luxembourg have rotational schemes that differ from that of the other countries.

Similar to the yearly longitudinal weights, we take the monthly (cross-sectional) weights for 2005 from the 2005 file and the weights for 2006 from the 2006 file and so on. However, one rotational group (see Figure 7.2) is not included in each of the different longitudinal files. We therefore take the base weight for this group from the subsequent longitudinal file. Furthermore, we have to reweight the first and last year of each country because we only observe three quarters of observations. For most countries these weights are the cross-sectional weights. However, in some countries the overall sum of the weights in 2004 does not correspond to the number of inhabitants. In these cases, we reweight the weights all with the same country-specific factor<sup>29</sup>. For some countries, additional differences are considered:

- The Czech Republic: there are only two different rotational groups
- Denmark: The first file is L2006 that also covers data for 2004.
- France: There are nine rotational groups instead of four.
- Ireland: All observations from the L2005 file are also included in 2006. Therefore only L2006, L2007 and L2008 are used.
- Norway: Six rotational groups in 2005 and five groups in the years 2006 to 2008
- Luxembourg: It is no rotational panel.

<sup>&</sup>lt;sup>29</sup> The factors are derived with the population numbers provided by Eurostat.

Portugal: The first file is L2006 but also covers data for 2004.

#### 7.3 Data coverage and data quality

In this section, we analyse the data coverage of the EU-SILC data. We describe two dimensions of data coverage: the availability of variables that are important for the analysis and the coverage rate of the variables included in the longitudinal files.

As mentioned before, the number of observations for Iceland is very small in the restricted sample. Furthermore, the calendar data is available only in one year. For these reasons, we exclude Iceland from the whole analysis and do not discuss data problems regarding Iceland in the subsequent sections.

Except for the structure of the data, the cross-sectional data and the longitudinal data differ to some extent in the covered variables. There are some variables in the cross-sectional data file that are also of interest for the analysis of labour market transitions and mobility, but that are not included in the longitudinal data sets. We therefore suggest making these variables available also in the longitudinal data. This would be particularly interesting for the following variables:

- Information on the use of child care (variables RL010-RL070); these variables can be of interest for analyses especially of part-time employment.
- The reason for working less than 30 hours (part-time) (PL120).
- For the analysis of transitions rates and wages firm size, which is measured by the number of persons working at the local unit (PL030) the industry (PL110) and indicators related to immigration, such as the country of birth (PB210) and the citizenship (PB220A
- The gross monthly earnings for employees (PY200G), which are only available for some years, can be useful for the data work. They can be used to compare the derived monthly incomes and make sensitivity checks.

Besides the variables which are available in the cross-sectional data files, the exact month of the interview would be helpful. Especially to generate monthly income and monthly transition rates it is important to compare the yearly interviews with the calendar data.

An important variable for the analysis of labour market transitions and wages or incomes is job tenure. The separation rate (the probability to change from employment to non-employment or another job) strongly depends on job tenure. Therefore, such a variable would be very useful, but is missing from the data set. Similarly for unemployed workers the duration in unemployment is decisive for transitions out of unemployment. This variable as well as further variables on the employment and unemployment history of each respondent could further improve the data set.

For the analysis of temporary jobs, the duration of a temporary contract can give some further insights into cross-country differences. Unfortunately, it is not included in the EU-SILC data set. Additionally, it should be possible to distinguish between "normal" temporary contracts and temporary agency work. Both types of temporary employment differ in their prevalence across countries.

To get further insights into the quality of labour market transitions, more "objective" measures of health such as the days absent from work due to illness or the number of times a doctor was visited during the last year should be available in the data. A question for satisfaction with life in general or a question targeting directly at satisfaction with one's current job should be added to be able to assess the quality of transitions directly.

For most of the used variables, data coverage is very high. However, there exist some exceptions. Exceptions are the degree of urbanisation which is not available for the Netherlands and Slovenia, and work experience which is missing for the UK in 2005, and the response rates are low for the UK.

In Denmark it is not possible to distinguish between permanent and temporary employment. Since temporary employment has become more important it should be covered for all countries.

The person identifier (RB030) in the longitudinal files gives the opportunity to observe one person over several years. However, we observe in the data some persons that change their gender and/or their date of birth. Therefore, there are some identifiers (IDs) that are assigned to different individuals. There are 438 persons in our sample of persons aged between 15 and 65 that either change their gender or their date of birth over time (see Table A.7.4 in the appendix). Most of these misclassifications occur in Lithuania for those individuals that are interviewed for the first time in 2004. These observations have to be separated into two new IDs before and after the change. However, it is not clear if they are also observed with a different ID: Is same the ID assigned to different individuals at different time periods? Or are several IDs interchanged and therefore the same person interviewed with different IDs?

The reason for job change should be available for all job changes in order to facilitate an understanding of the nature of turnover in Europe. However, the question differs between the questionnaires used in the different countries. Furthermore, the answers in the variable "reason for job-change" do not always point to the last job-change, but to other job-changes in the previous or current year. Therefore, it cannot be unambiguously attributed to a certain job-change. Furthermore, it does not always contain the information for the last job change, but for the last employment status change for some countries. This variable can be very important since it is possible to distinguish between voluntary and involuntary job changes.

For transitions between different employment states, we analyse the share of workers that answer to the question of the reason for their job change that it was due to the end of a temporary contract. It can be seen that those workers that were temporarily employed in the preceding year are more likely to state this reason (see Table A.7.5 in the appendix). However, a substantial part of workers that were not temporarily employed at the time of the last interview state that they changed due to the end of a temporary contract. It is possible that they were temporarily employed after the last interview and then changed their job again. However, we cannot observe this last employment since there is no differentiation between temporary and permanent employment in the calendar data. Furthermore, the months before the current interview are only covered by the calendar data of the next interview, which takes place in the following year.

A similar finding can be observed for the reason "sale or closure of own or family business" (see Table A.7.6 in the appendix). This reason for a job change can only be valid for self-employed workers. However, this answer also appears for workers with different labour mar-

ket states of origin. Compared to the reason "end of temporary contract", the number of inappropriate answers is small. This can be due to the fact that self-employment spells are of a longer duration than temporary employment spells.

The definition of living in a consensual union (cunion/pb200) seems to vary over countries. For example, in Austria being married equals living in a consensual unit on a legal basis, while in Germany only 0.1 percent of those being married declare to live in a consensual unit on a legal basis (probably homosexual couples).

The variables "self-defined current economic status" (PL040) and "main activity on January-December" (PL210A-PL210L), including the individuals' actual and previous employment states, are coded differently. E.g. self-employment is only covered in the monthly employment status, but not in the current employment status. This makes it difficult to compare this information.

One important part of Tasks 2, 4 and 5 was the calculation of income and wages. Therefore, reliable information on relevant income measures is of great importance. Unfortunately, in contrast to most of the other variables, data coverage is very low regarding income. Yearly labour income can directly be derived from the employee cash income. However, for some countries, vital information is not contained in the data set. In particular, France, Italy, Latvia and Portugal provide information on gross income (see Table A.7.7 in the appendix), as well as on gross income taxes (see Table A.7.8 in the appendix) for two years only. For Greece income information is only available for 2007. However, the response rate is very high or even perfect in all countries that provide information. The coverage rate for net income taxes (see Table A.7.9 in the appendix) is very low. Information is only available for very few countries.

In the analysis of Task 2, household-related income information is particularly relevant. For example, family allowances are an important part of household income. However, no information (e.g. Table A.7.10 in the appendix) is available for Denmark, Finland, Hungary, the Netherlands, Norway, Slovakia and the UK (there are some exceptions in 2005 and 2006).

Besides gross income and family allowances, net income measures are important to calculate for example marginal effective tax rates (see Table A.7.11 in the appendix). Comparable to the coverage rate regarding family allowances, information is not available for Cyprus, Germany (2006), Denmark, Finland, Hungary, the Netherlands, Norway, Slovakia and the UK (there are some exceptions in 2005 and 2006).

Summed up, reliable income information is only available for Austria, Belgium, Bulgaria, the Czech Republic, Germany (2005), Estonia, Spain (2006-2008), France (2006-2007), Greece (2007), Ireland, Italy (2007-2008), Lithuania, Luxembourg, Latvia (2007-2008), Poland, Portugal (2007-2008), Romania, Sweden and Slovenia. Therefore, the data set seems to be more suitable to analyse income patterns of the new Member States than of the EU 15 States.

The amount of unemployment benefits (PY090) includes full unemployment benefits, partial unemployment benefits (benefits compensating for the loss of wages or salary due to formal short-time working arrangements, and/or intermittent work schedules), early retirement benefits due to labour market reasons, vocational training allowances, mobility and resettlement payments, severance and termination payments and redundancy compensation. Especially

the last two parts can be substantial and are quite different to the "normal" unemployment benefits. Therefore, analyses based on this numbers are biased. This is especially true for the calculation of METRs and NRRs in Task 2.

Net unemployment benefits are not available for a number of countries, namely Denmark, Finland, Hungary, Iceland, the Netherlands, Norway, Slovakia, and the UK. In addition, these countries, and Belgium, do not provide information on housing allowances.

Overall, it seems to be important that questionnaires, i.e. the phrasing of questions, are harmonized across countries (an example is the reason for job-change question, which is inconsistent across countries), and that the coverage rate of the income measures becomes better.

### 7.4 Calculation of monthly income and benefits, hourly wages and hours worked

In order to measure income, we use the (gross) employee cash income, the calendar data and the number of hours usually worked per week in the main job. Information on the number of hours usually worked and the calendar data are combined in order to compute the number of hours supplied by the worker. Together with the cash income, this is used to calculate monthly income and hourly wages. In this section we describe our methodology.

With respect to income information, EU-SILC includes yearly income and benefit positions. In order to calculate monthly income and hourly wages, it is important to find a computational strategy. Yearly income measures cannot be used as a proxy for monthly income measures, since the yearly income by accrue in only a few months of employment. Therefore, the duration spent in the different states during the year has to be taken into account. Furthermore, differences in the income/benefit levels between different employment/unemployment spells have to be considered. However, the calendar data cover only information on the employment status without any additional information (direct job changes, occupation, hours worked, wage level etc).

In the longitudinal files, income gained from employment is covered by the variables "Employee cash or near cash income (gross/net)". These variables cover the income gained in the reference period. The reference period covers twelve months. These twelve months are those immediately preceding the date of the interview in Ireland and those of the current year in the United Kingdom. In all other countries, the reference period is the calendar year prior to the interview. This means that the data of the 2008 interview cover the income gained in 2007. Cash income, non-cash income, unemployment benefits, old-age benefits, sickness benefits, and taxes are measured for the same time period. On the other hand, the current economic states of the individuals in the data set are known at the time of the interviews; in addition, the economic status is contained in the monthly information for the previous calendar year (using the calendar data on the main activity).

In the data, only 8 per cent of all individuals who report that they were employed or unemployed during the previous calendar year were at least in two different labour market states (full-time or part-time employment, or unemployment). Therefore, calculating income and wages should be straightforward for the majority of observations, but a significant part of observations entails problems, as income and hours worked have to be assigned to the different labour market spells during the calendar year. Especially, part-time and full-time employment spells that occur during the same year are problematic for the calculation of wages.

The calculation of monthly wages is based on the monthly calendar data. Since the income period is the same as that of the calendar information, the yearly gross and net incomes are divided up and assigned to the 12 calendar months. To obtain monthly income figures, the following steps are carried out:

- 1. First, for those workers who are either full-time employed, part-time employed or selfemployed in all twelve months, the income is divided by 12 to get the monthly income.
- 2. For those workers who have only one employment and/or unemployment spell (of several months), the income/unemployment benefits are divided by the number of months of this spell.
- 3. The derived monthly income is extrapolated to the following months of the next year or to the previous months of the preceding year as long as the labour market status and the full-time/part-time status (in the case of employment) do not change. For example, the income of a worker who is employed full-time in December 2004 is extrapolated to January and February 2005 if the worker is still full-time employed in January and February 2005, but becomes part-time employed, inactive or unemployed in March.
- 4. If there is only one employment spell left in a calendar year with no monthly income derived in step 3, the yearly income is reduced by the income that is assigned to all other employment spells in the respective year (from the extrapolation in step 3) and then divided by the number of months of the remaining employment spell.

Other benefit variables such as housing as well as family and children allowances can play an important role in the income situation of an unemployed or low income person/household. In most of the countries, they are not directly dependent on the working status but on the income situation and family/household characteristics. We therefore assume these values are uniformly distributed over the year in order to get a monthly benefit.<sup>30</sup>

As described above, attributing incomes and benefits at a monthly or even higher frequency is made difficult by the structure of the data set and is prone to important measurement error. We therefore propose to include in the EU-SILC questionnaire for all countries questions on the income situation at the time of the interview (like PY200G),). While such information only provides a yearly snapshot on incomes in the EU, it is likely to greatly reduce measurement error. Given the importance of income for the EU-SILC data, we regard this addition to the data set to be of paramount importance.

#### 7.5 Data Quality of the Calendar Data

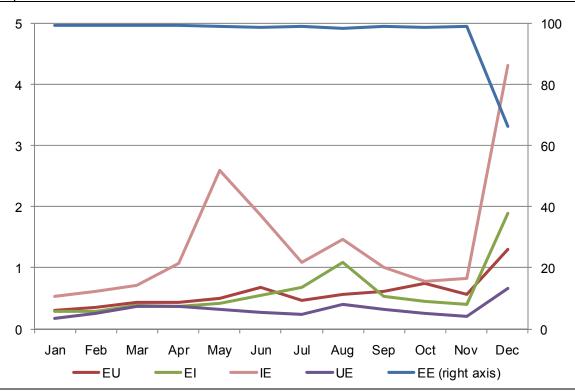
The labour market states derived from the calendar data are very important in our analyses. First, it is possible to calculate monthly transitions, second they are necessary to calculate monthly income measures and third the labour market status in the calendar data is the main status of the respective month. This is in contrast to the current self-defined labour market status that is available at each date of the interview, i.e. on a yearly basis. The information contained in the current economic status could, in the most extreme case, refer to the employment status of the day of the interview. However, retrospective calendar data have the disadvantage that persons do not correctly remember all labour market states (cf. Jürges 2007).

<sup>&</sup>lt;sup>30</sup> This may lead to problems since allowances can be assigned only for a certain time or situation and these regulations may differ over the countries. However, the data do not allow us to distinguish between different cases.

To get some impression of the differences between the two data sources, we compare the labour market status contained in the calendar data with the labour market status of the same month in the calendar data. This is not possible for the last observations of each person (with the exception of the UK) since the calendar data always cover the calendar year before the interview. Problems arise because the month of interview is unknown. There is only information on the quarter. We therefore compare if the labour market status and the status of at least one of the three months of the quarter in which the interview took place is the same. Therefore, we overestimate the consistency of the two data sources. Our results suggest that there is a large variation in the consistency between the countries (see Table A.7.12 in the appendix). The consistency in Cyprus, Estonia, France, Lithuania, Luxembourg and the UK is very high. The very high numbers derived for the UK can be explained by the fact that the period always covers the current calendar year. Therefore, it can be assumed that the remaining difference is due to the difference in the definition of the respective labour market status.

Figure 7.4

Monthly transition rates into employment and out of employment in per cent



Source: EU-SILC, own calculations.

Retrospective calendar data can suffer from recall errors of the respondents. It can be possible that they do not (want to) remember short sequences of unemployment. Furthermore, it is possible that they do not remember that a new labour market status started in December instead of the beginning of the subsequent year etc. The calendar data (except for Ireland) always cover 12 months from January to December. Therefore, transitions between December and January always result from two different interviews. Figure 7.4 shows that the transition rates into and out of employment between December and January are exceptionally high

compared to all other transitions. This result indicates that there exists some recall error of the respondents.

#### 7.6 Comparison to EU-LFS

In the project "Various aspects of labour market performance using micro data from the European Union Labour Force Survey (EU-LFS)" that was conducted by the RWI and the ISG, labour market transitions were analysed, too. We replicate the descriptive analysis but restrict the sample to 2004 to 2008. Furthermore, the descriptive results of Task 1 are replicated without Norway and Ireland. Additionally, to make the results comparable, only the three core labour market states employment, unemployment and inactivity are distinguished.

The yearly transition probabilities for the total sample show only small differences between the EU-SILC data and the EU-LFS data (see Table A.7.13 in the appendix). The persistence in unemployment is lower in the EU-SILC data than in the EU-LFS data (49.3 per cent in the EU-SILC vs. 57.0 per cent for EU-LFS). The share of employed workers (63.8 and 63.9 per cent) is very similar also when men and women are distinguished. Both, male and female workers are somewhat less likely to stay employed in the EU-SILC data than in the EU-LFS data. However, it can be noted that the job-to-job transition rates for men and women are slightly larger for the EU-SILC data than for EU-LFS.

A similar pattern can be observed for the different skill groups (see Table A.7.14 in the appendix). For each of the three skill groups, the probability to stay unemployed is lower in the EU-SILC sample than in EU-LFS (low skilled: 52.6 per cent for EU-SILC vs. 61.3 per cent for EU-LFS; medium skilled: 48.7 per cent vs. 56.4 per cent; high skilled: 40.7 per cent vs. 45.8 per cent). Additionally, it can be seen that there are different patterns regarding the composition. Low-skilled workers in the EU-SILC data set are more likely to be employed than in the EU-LFS data set (49.8 per cent vs. 44.8 per cent). By contrast, there are only small differences (and in the other direction) for medium-skilled and high-skilled workers. Regarding job-to-job transitions, differences between the two data sets are especially observable for medium- and high-skilled workers.

When comparing the transition rates based on EU-SILC with those based on EU-LFS for different age groups (see Table A.7.15 in the appendix), it is again – amongst others – the probability of remaining in unemployment, the flows of unemployment to inactivity, and of inactivity to employment that exhibit the largest discrepancies. The largest differences can be observed for middle-aged workers. The probabilities to remain unemployed (48.7 per cent for EU-SILC vs. 58.4 per cent for EU-LFS) and to remain inactive (76.8 per cent vs. 82.1 per cent) are lower in the EU-SILC data set. The flows from unemployment to inactivity (15.5 per cent vs. 10.9 per cent), and from inactivity to employment (17.2 per cent vs. 12.2 per cent) are higher in the EU-SILC sample than in the EU-LFS sample. However, differences in the share of employed workers can be observed for older workers (38.5 per cent in EU-SILC and 43.0 per cent in EU-LFS).

Finally, the transition rates are compared separately for each of the country groups. The results suggest that the comparability is quite similar between the country groups (see Table A.7.16 in the appendix). For Continental Europe, only small differences between the two data sets can be observed. However, it is the only country group where the job-to-job transition rate is smaller in the EU-SILC data than in the EU-LFS data while the persistence in unemployment is higher than in the EU-LFS analysis. In all other country groups, remarkable

differences in the probability to stay unemployed can be observed. For the United Kingdom job-to-job transitions are more frequent in the EU-SILC data than in EU-LFS (18.9 per cent and 11.7 per cent, respectively).

#### 7.7 Conclusion

In Task 6 we describe the data preparation process and summarize the data problems and shortcomings of the EU-SILC data that emerged during the data preparations and analyses performed in Tasks 1 to 5. Furthermore, we make suggestions for additional or modified variables that could improve the different analyses. Finally, we compare some of our results to the results obtained using EU-LFS.

The EU-SILC data set is a rotational panel of all EU Member States, Norway and Iceland. Due to the large number of countries and the panel structure, it is an important and unique data set. The latest version, released in 2010, covers a remarkable number of individuals that are followed over a maximum of four years. Most of the variables included in the longitudinal files are of high quality. However, there are also some variables with a lower quality. These are particularly the reason for job changes and the income variables. Especially, the coverage rate of the different income variables is very low. Therefore, the data are less useful for analysis of household income, poverty etc. Besides these problems in the coverage rate, some important variables are missing in the longitudinal data set. These are for example firm size, job tenure and industry.

The structure of the data and the income variables do not allow to directly assign income to the labour market status of the respective interview. Indeed, income is measured for the last calendar year. However, there is also monthly retrospective information on the labour market status. Based on this information, it is possible to assign income to the different months. However, it is not possible to assign income to every individual. Especially for those who often change their labour market status, it is not possible to assign a reliable income to the different labour market states.

The labour market states derived from the retrospective monthly data differ to some extent to the labour market states derived from the yearly interviews. Furthermore, high transition rates between December and January can be observed. These findings suggest that there is some recall error in the retrospective data.

Compared to the descriptive findings based on the EU-LFS data set, it can be seen that there are only small differences between the two data sets regarding transition rates.

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## Appendix

Table A.2.1 **Markov transition matrix, total sample and by gender** in per cent

in per cent			DESTINATION		
	Employment	Self- employment	Education	Un- employment	Inactivity
ORIGIN					
All					
Employment	91.479	1.495	0.655	2.980	3.391
	(9.543)				
Self-employment	7.489	86.021	0.234	1.850	4.406
Education	15.463	1.074	75.083	4.913	3.466
Unemployment	29.142	3.949	2.254	49.275	15.380
Inactivity	7.035	1.913	0.835	3.287	86.930
Total	53.862	10.019	7.736	6.345	22.039
Women					
Employment	90.560	1.035	0.796	3.022	4.588
	(9.470)				
Self-employment	8.390	81.619	0.291	2.075	7.624
Education	15.326	0.853	75.353	4.846	3.622
Unemployment	27.276	2.868	2.366	47.565	19.925
Inactivity	7.591	1.850	0.653	3.259	86.647
Total	49.351	6.472	7.892	6.315	29.971
Men					
Employment	92.235	1.873	0.539	2.946	2.406
	(9.654)				
Self-employment	7.066	88.092	0.208	1.744	2.891
Education	15.602	1.299	74.810	4.982	3.307
Unemployment	30.999	5.023	2.143	50.976	10.859
Inactivity	5.776	2.056	1.246	3.353	87.569
Total	58.339	13.538	7.581	6.374	14.168

# **RWI**

Table A.2.2 **Markov transition matrices by skill group** in per cent

in per cent			DESTINATION		
	Employment	Self- employment	Education	Un- employment	Inactivity
ORIGIN					
Low skilled					
Employment	87.669	1.806	0.384	5.255	4.887
	(9.497)				
Self-employment	6.485	84.817	0.112	2.200	6.385
Education	7.758	0.602	85.196	3.485	2.960
Unemployment	24.594	3.178	1.235	52.662	18.330
Inactivity	4.185	1.438	0.480	3.328	90.568
Total	39.321	10.392	7.846	8.458	33.983
Medium skilled					
Employment	91.984	1.416	0.846	2.584	3.169
	(9.601)				
Self-employment	7.606	86.611	0.330	1.851	3.603
Education	14.833	0.962	76.280	4.624	3.301
Unemployment	30.533	4.054	2.768	48.549	14.096
Inactivity	9.017	2.102	1.131	3.317	84.433
Total	56.295	9.777	9.427	5.993	18.508
High skilled					
Employment	93.805	1.385	0.537	1.751	2.521
	(9.540)				
Self-employment	8.716	86.873	0.225	1.290	2.896
Education	32.920	2.428	50.925	8.835	4.892
Unemployment	39.314	6.173	3.682	40.590	10.240
Inactivity	12.687	3.433	1.222	3.164	79.494
Total	70.181	10.263	3.932	3.980	11.643

Table A.2.3 **Markov transition matrices by age group** in per cent

in per cent			DESTINATION		
	Employment	Self- employment	Education	Un- employment	Inactivity
ORIGIN					
Age 15-24					
Employment	84.038	1.331	5.582	6.538	2.511
	(22.347)				
Self-employment	18.625	68.504	3.838	5.085	3.948
Education	12.856	0.703	79.443	4.109	2.889
Unemployment	34.856	2.320	8.374	46.601	7.848
Inactivity	20.331	2.660	16.380	11.543	49.086
Total	34.329	2.207	49.368	8.598	5.499
Age 25-54					
Employment	93.245	1.543	0.331	2.750	2.132
	(9.294)				
Self-employment	8.000	87.253	0.193	2.027	2.527
Education	29.695	3.012	51.989	9.302	6.003
Unemployment	31.269	4.556	1.317	48.630	14.227
Inactivity	12.024	2.810	0.679	5.494	78.993
Total	65.805	11.853	1.584	6.628	14.130
Age 55-65					
Employment	84.590	1.284	0.015	2.498	11.612
	(4.439)				
Self-employment	4.465	83.435	0.000	0.869	11.231
Education	15.292	9.615	9.984	5.197	59.912
Unemployment	12.522	2.781	0.086	55.350	29.260
Inactivity	2.092	1.122	0.032	0.959	95.796
Total	29.533	9.366	0.033	4.027	57.041

Table A.2.4 **Markov transition matrices by country groups** in per cent

in per cent			DESTINATION		
	Employment	Self- employment	Education	Un- employment	Inactivity
ORIGIN					
Continental Europe					
Employment	93.320	0.709	0.490	2.593	2.887
	(6.612)				
Self-employment	5.512	89.722	0.078	0.944	3.743
Education	18.405	0.912	74.501	3.166	3.016
Unemployment	28.577	3.034	1.572	55.716	11.101
Inactivity	8.223	1.440	0.619	1.771	87.948
Total	58.204	6.614	8.143	5.869	21.170
Scandinavia					
Employment	91.184	1.427	1.800	2.112	3.476
	(13.883)				
Self-employment	12.856	81.577	0.545	1.299	3.723
Education	24.474	0.715	65.319	5.244	4.249
Unemployment	35.751	2.229	6.416	40.341	15.263
Inactivity	11.765	1.724	2.647	3.874	79.989
Total	65.076	7.406	9.495	4.396	13.628
Mediterranean countries					
Employment	89.645	2.282	0.538	4.239	3.296
	(9.750)				
Self-employment	7.359	85.620	0.220	2.238	4.563
Education	10.680	1.395	77.161	6.726	4.037
Unemployment	27.354	4.664	2.703	47.958	17.321
Inactivity	5.503	2.382	0.955	4.545	86.615
Total	47.750	13.472	7.465	7.717	23.596
CEE					
Employment	91.430	1.573	0.313	3.036	3.648
	(7.367)				
Self-employment	8.575	84.204	0.288	1.987	4.946
Education	11.700	1.029	80.388	4.389	2.494
Unemployment	30.532	3.932	1.532	49.407	14.597
Inactivity	5.555	1.697	0.493	3.027	89.228
Total	50.119	9.732	9.371	7.402	23.377
United Kingdom & Ireland					
Employment	92.340	1.141	1.070	1.207	4.241
	(18.519)				
Self-employment	7.266	86.869	0.336	1.434	4.095
Education	28.042	0.685	62.446	4.347	4.479
Unemployment	35.551	3.788	2.125	34.631	23.905
Inactivity	10.532	1.742	0.917	2.578	84.230
Total	63.217	8.448	4.567	2.625	21.143

Table A.2.5 Regression results: Monthly transitions from employment

			ES		EU		Ē	
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	ivial g. ellect	r-value	iviary. errect	ı-value	ivial g. ellect	l-value	ivarg. ellect	i-vaiue
Male	1.068	3.13	0.151	4.00	-0.265	-1.07	-0.941	-7.19
Female	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	category
Age 15-24	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	category
Age 25-54	2.206	5.73	-0.003	-0.07	-1.457	-4.75	-0.523	-3.03
Age 55-65	-1.437	-1.73	-0.038	-0.86	-1.323	-9.89	2.861	3.46
Single	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	category
Married	0.217	0.65	-0.012	-0.27	-0.641	-2.42	0.516	3.25
Living with partner	-0.706	-1.88	-0.010	-0.27	0.161	0.65	0.579	2.21
Low skilled (ISCED 0-2)	-1.036	-2.83	0.040	1.25	0.824	2.97	0.184	1.46
Medium skilled (ISCED 3-4)	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	category
High skilled (ISCED 5)	0.379	1.47	0.057	0.84	-0.160	-0.71	-0.261	-2.48
Number of children (<= 4) in household	-0.618	-5.17	0.007	0.44	0.271	4.73	0.345	3.61
Number of children (5-14 years) in household	0.166	1.64	0.004	0.19	0.098	1.87	-0.263	-3.53
Number of elderly (>=65) in household	0.065	0.39	0.002	0.12	-0.088	-0.85	0.022	0.18
Full-time employed partner in household	0.743	4.01	-0.029	-0.62	-0.595	-3.86	-0.133	-1.23
Part-time employed partner in household	1.200	7.01	-0.038	-0.73	-0.806	-4.05	-0.390	-2.77
Inactive/unemployed partner in household	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	category
Full-time employed	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	category
Part-time employed	-1.955	-6.09	0.343	2.51	0.990	4.38	0.568	5.50
OCCUPATION								
Legislators, Senior officials and Managers	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	category
Professionals	0.381	1.54	-0.177	-4.31	-0.049	-0.23	-0.176	-1.27
Technicians and Associate Professionals	0.412	1.12	-0.208	-4.24	0.197	0.62	-0.394	-3.76
Clerks	0.224	0.42	-0.331	-6.21	0.533	1.08	-0.414	-4.01

Table A.2.5, continued

	H		ES		EU		Ξ	
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
Service workers and shop and market sales workers	-1.459	-2.60	-0.190	-4.97	1.669	3.24	-0.030	-0.23
Skilled agricultural and fishery workers	-7.228	-6.50	0.561	1.40	5.831	7.39	0.848	1.91
Craft and related trades workers	-1.693	-4.16	-0.194	-6.17	1.950	5.39	-0.045	-0.31
Plant and machine operators and assemblers	-1.078	-1.90	-0.220	-5.93	1.405	2.55	-0.089	-0.75
Elementary occupations	-3.856	-6.77	-0.234	-5.87	3.821	9.28	0.271	1.01
COUNTRY								
Austria	Reference category	category	Reference category	sategory	Reference category	category	Reference category	ategory
Belgium	908.0	22.34	-0.095	-4.89	-1.164	-36.29	0.471	12.79
Bulgaria	-1.019	-7.59	0.236	6.11	0.905	9.58	-0.129	-1.16
Cyprus	-0.704	-7.38	0.081	5.33	1.208	11.45	-0.587	-9.94
Czech Republic	1.017	6.67	-0.047	-1.88	-0.887	-13.03	-0.058	-0.61
Germany	1.358	5.79	0.077	0.95	-1.140	-10.86	-0.274	-1.61
Denmark	1.413	15.84	0.219	3.65	-1.636	-42.41	-0.225	-3.71
Estonia	1.112	12.22	0.044	2.37	-1.146	-22.60	-0.053	-0.98
Spain	-0.038	-0.26	0.035	3.83	0.589	5.30	-0.581	-7.76
Finland	-2.272	-9.20	0.074	2.18	0.570	6.21	1.225	89.9
France	1.77.1	27.68	-0.261	-5.50	-0.826	-19.00	-0.677	10.12
Greece	-1.897	17.96	0.416	8.13	1.596	23.11	-0.103	-1.71
Hungary	-1.284	-7.54	0.013	0.85	0.017	0.30	1.280	8.51
Ireland	-0.242	-1.90	-0.043	-3.12	-0.005	-0.08	0.191	2.21
Italy	0.404	5.12	0.131	5.36	-0.949	-16.28	0.424	7.22
Lithuania	0.855	8.97	0.042	2.26	-0.460	-8.01	-0.469	-7.35

Table A.2.5, continued

	H		ES		EU			
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
Luxembourg	1.668	19.77	-0.208	-6.68	-1.116	-16.30	-0.342	-7.14
Latvia	0.924	29.6	0.084	3.95	-0.757	-13.98	-0.275	-4.04
Netherlands	-1.559	-3.52	-0.043	-1.02	-1.351	-28.39	2.942	69.9
Norway	1.752	24.02	0.010	0.41	-1.759	-44.46	-0.143	-2.22
Poland	-0.277	-2.50	0.412	7.52	-0.258	-6.60	0.138	1.88
Portugal	0.947	5.84	0.169	5.65	-0.594	-4.88	-0.507	11.48
Romania	3.684	18.62	-0.146	-2.10	-2.259	-37.69	-1.246	-7.66
Sweden	0.379	2.45	0.176	2.68	-0.851	-11.23	0.053	0.49
Slovenia	1.551	13.04	-0.048	-2.78	-1.061	-16.76	-0.423	-5.60
Slovakia	1.318	9:36	0.165	4.23	-0.865	-14.28	-0.588	-6.69
United Kingdom	1.059	9.14	-0.134	-5.08	-1.535	-27.21	0.570	5.05
2004	-0.450	-2.05	0.025	0.72	0.377	2.27	0.061	0.28
2005	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	ategory
2006	-0.230	-0.60	-0.016	44.0-	0.010	0.09	0.245	0.74
2007	-0.256	-0.66	0.017	0.26	-0.083	-0.60	0.327	0.87
January	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	ategory
February	-0.562	-1.32	-0.092	-1.34	0.463	1.27	0.217	1.07
March	-1.046	-1.34	0.031	0.47	0.688	1.27	0.333	0.77
April	-1.118	-1.71	0.050	0.52	0.667	1.36	0.423	1.04
May	-4.127	-4.45	0.073	0.75	3.166	5.47	0.898	1.50
June	-9.576	-4.08	0.243	1.22	6.792	7.21	2.527	1.56
July	-4.835	-3.32	0.088	1.01	3.658	5.51	1.001	96.0

Table A.2.5, continued

			ES		EU			
	Marg. effect	t-value						
August	-6.891	-3.21	0.141	96.0	4.582	4.44	1.940	1.52
September	-6.017	-3.63	0.155	1.33	4.362	5.17	1.441	1.43
October	-7.337	-4.08	0.076	0.87	5.611	6.14	1.651	1.42
November	-4.668	-3.55	0.044	0.48	3.964	5.72	0.664	0.82
December	-48.695	-4.79	10.954	3.30	17.791	5.95	19.338	2.67
Pseudo-R²	0.111							
Observations	3,563,067							
ADDITIONAL EXPLANATORIES								
Densely populated area	0.317	1.01	0.003	60.0	-0.248	-1.12	-0.074	-0.67
Intermediate populated area	Reference category	category	Reference category	category	Reference category	category	Reference category	sategory
Thinly populated area	-0.387	-2.07	0.067	2.22	0.253	1.30	0.071	1.01
Pseudo-R²	0.114							
Observations	3,218,408							
	Reference category	category	Reference category	category	Reference category	category	Reference category	sategory
Years of employment	0.079	7.23	-0.003	-3.73	-0.083	-7.80	0.009	1.14
Pseudo-R²	0.097							
Observations	3,163,193							

Source: EU-SILC, own calculations. – Notes: All coefficients are multiplied by 1,000. EE, ES, EU, EI indicate employment in period t and employment, self-employment, unemployment and inactivity in period t+1, respectively. – Multinomial logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. Results for transitions into education are not presented in this table due to small sample sizes. See Section 2.1 for explanation of the additional explanatories.

Table A.2.6 Regression results: Monthly transitions from employment, Continental Europe

	H		ES		EU			
	Marg. effect	t-value						
Male	0.318	06.0	0.046	0.84	0.084	0.53	-0.447	-1.46
Female	Reference category	category						
Age 15-24	Reference category	category						
Age 25-54	1.904	3.30	-0.047	-0.51	-1.817	-4.46	-0.021	-0.09
Age 55-65	-3.481	-2.29	-0.080	-1.48	-1.259	-8.28	4.856	2.92
Single	Reference category	category						
Married living with partner	0.733	0.89	0.068	3.10	-0.927	-1.51	0.133	0.57
Not married living with partner	-0.013	-0.02	0.072	1.76	-0.131	-0.30	0.075	0.25
Low skilled (ISCED 0-2)	-0.187	-0.61	-0.024	-0.48	0.176	0.55	0.035	0.43
Medium skilled (ISCED 3-4)	Reference category	category						
High skilled (ISCED 5)	-0.034	-0.23	0.149	2.10	0.184	1.06	-0.298	-1.59
Number of children (<= 4) in household	-0.601	-2.72	-0.027	-1.62	0.332	2.47	0.296	1.18
Number of children (5-14 years) in household	0.157	1.09	-0.019	-0.66	0.125	1.15	-0.262	-3.68
Number of elderly (>=65) in household	-0.078	-0.45	-0.034	-0.51	0.334	1.52	-0.224	-1.08
Full-time employed partner in household	0.641	2.34	-0.085	-1.50	-0.622	-3.21	0.062	0.34
Part-time employed partner in household	1.391	11.12	-0.084	-4.64	-1.026	-5.38	-0.293	-1.09
Inactive/unemployed partner in household	Reference category	category						
Full-time employed	Reference category	category						
Part-time employed	-1.714	-7.56	0.211	2.04	1.126	13.37	0.374	1.68
OCCUPATION								
Legislators, Senior officials and Managers	Reference category	category						
Professionals	0.185	0.64	-0.132	-2.63	0.284	0.98	-0.338	-2.06
Technicians and Associate Professionals	-0.204	-0.47	-0.082	-0.92	0.611	1.54	-0.323	-2.39
Clerks	-0.645	-0.80	-0.192	-2.20	1.217	1.66	-0.378	-2.37

Table A.2.6, continued

			ES		EU			
	Marg. effect	t-value						
Service workers and shop and market sales workers	-2.433	-4.87	-0.106	-1.60	2.611	5.58	-0.072	-0.64
Skilled agricultural and fishery workers	-4.127	-2.93	0.358	2.42	3.892	2.94	-0.121	-0.32
Craft and related trades workers	-1.873	-4.72	-0.042	-0.84	2.114	10.83	-0.197	-0.54
Plant and machine operators and assemblers	-2.497	-5.43	-0.081	-1.42	2.756	8.00	-0.176	-0.67
Elementary occupations	-2.842	-3.27	-0.159	-2.43	3.287	4.83	-0.284	-0.98
COUNTRY								
Austria	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	sategory
Belgium	0.739	15.72	-0.052	-4.24	-1.094	-16.07	0.408	8.65
Germany	1.590	8.28	-0.032	-0.75	-1.070	-8.77	-0.486	-2.33
France	1.549	19.74	-0.233	-3.23	-0.691	-19.00	-0.625	-6.52
Luxembourg	1.174	9.01	-0.100	-3.66	-0.853	-7.72	-0.221	-5.84
Netherlands	-1.178	-1.85	-0.061	-1.58	-1.312	-19.88	2.549	3.94
2004	-0.760	-1.18	-0.023	-1.16	0.713	3.93	0.072	0.15
2005	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	sategory
2006	-1.119	-0.85	-0.070	-1.70	0.394	1.17	0.797	0.79
2007	-1.311	-1.14	-0.115	-1.84	0.561	1.7.1	0.867	1.05
January	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	sategory
February	-0.224	-0.61	-0.094	-4.98	0.265	0.48	0.055	0.21
March	0.508	0.59	-0.053	-2.15	-0.242	-0.33	-0.211	-0.48
April	0.192	0.22	-0.037	-0.59	0.037	0.04	-0.190	-0.57
May	-1.867	-2.95	-0.074	-1.74	1.932	6.37	0.011	0.02
June	-7.792	-2.13	-0.097	-3.92	6.265	5:35	1.623	0.64
July	-2.776	-1.38	-0.043	-1.07	2.797	3.88	0.016	0.01

Table A.2.6, continued

	33		ES		EU		B	
	Marg. effect	t-value						
August	900'9-	-1.74	-0.115	-5.74	4.952	3.32	1.155	0.58
September	-5.103	-1.99	-0.057	-1.93	4.340	3.60	0.816	0.52
October	-5.668	-2.17	-0.048	-2.98	4.913	5.41	0.802	0.45
November	-3.681	-2.26	-0.069	-1.46	3.770	5.22	-0.021	-0.02
December	-19.769	-2.94	1.567	1.61	11.854	3.51	6.325	1.18
Pseudo-R²	0.091							
Observations	813,457							

Source: EU-SILC, own calculations. – Notes: All coefficients are multiplied by 1,000. EE, ES, EU, EI indicate employment in period t and employment, self-employment, unemployment and inactivity in period t+1, respectively. – Multinomial logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. Results for transitions into education are not presented in this table due to small sample sizes.

Table A.2.7 Regression results: Monthly transitions from employment, Scandinavia

	H H		ES		EU		⊞	
	Marg. effect	t-value						
Male	1.332	2.09	0.362	5.59	-0.525	-3.02	-1.102	-2.27
Female	Reference category	sategory	Reference category	category	Reference category	sategory	Reference category	sategory
Age 15-24	Reference category	sategory	Reference category	category	Reference category	sategory	Reference category	sategory
Age 25-54	4.538	8.05	-0.212	-1.47	-1.241	-1.67	-2.017	-3.62
Age 55-65	-0.002	0.00	-0.133	-1.26	-1.194	-2.44	1.743	1.78
Single	Reference category	sategory	Reference category	category	Reference category	sategory	Reference category	sategory
Married living with partner	1.220	1.31	-0.067	-0.58	-1.049	4.20	0.130	0.22
Not married living with partner	0.804	1.58	-0.137	-3.59	-0.733	-7.07	0.182	0.42
Low skilled (ISCED 0-2)	-0.904	-2.41	0.186	0.97	0.394	1.08	0.391	1.05
Medium skilled (ISCED 3-4)	Reference category	sategory	Reference category	category	Reference category	sategory	Reference category	sategory
High skilled (ISCED 5)	1.128	2.12	-0.170	-2.80	-0.695	-1.27	-0.107	-0.73
Number of children (<= 4) in household	-1.441	-12.48	0.074	2.17	0.108	0.65	1.211	8.82
Number of children (5-14 years) in household	0.416	1.94	0.039	3.38	-0.025	-0.24	-0.434	-1.52
Number of elderly (>=65 ) in household	-1.804	-6.31	0.205	1.52	0.965	5.20	0.700	1.90
Full-time employed partner in household	-0.132	-0.16	-0.080	-0.70	-0.385	-1.98	0.723	1.30
Part-time employed partner in household	4.098	9.95	-0.451	-3.75	-2.139	-59.02	-1.596	-6.70
Inactive/unemployed partner in household	Reference category	ategory	Reference category	category	Reference category	sategory	Reference category	sategory
Full-time employed	Reference category	ategory	Reference category	category	Reference category	sategory	Reference category	sategory
Part-time employed	-2.373	-2.58	0.251	1.02	966.0	3.96	1.027	2.36
OCCUPATION								
Legislators, Senior officials and Managers	Reference category	sategory	Reference category	category	Reference category	sategory	Reference category	sategory
Professionals	-1.532	-0.89	-0.134	-1.19	0.456	0.63	0.922	1.10
Technicians and Associate Professionals	-0.371	-0.98	-0.295	-2.14	760.0-	-0.28	0.640	2.94
Clerks	-0.733	-0.77	-0.357	-3.66	0.496	69'0	0.429	0.99

Table A.2.7, continued

	出		ES		E			
	Marg. effect	t-value						
Service workers and shop and market sales workers	-2.240	-2.66	-0.231	-1.20	1.109	1.54	1.140	4.28
Skilled agricultural and fishery workers	-5.341	-1.91	0.710	1.16	2.255	1.49	2.166	2.24
Craft and related trades workers	-2.915	-1.64	-0.272	-3.47	1.953	1.35	1.272	2.30
Plant and machine operators and assemblers	-1.959	-1.92	-0.330	-4.39	0.540	0.70	1.758	4.47
Elementary occupations	-4.710	-2.78	-0.375	-4.21	3.557	2.22	1.372	4.72
COUNTRY								
Denmark	Reference category	sategory	Reference category	category	Reference category	category	Reference category	sategory
Finland	-5.697	-12.44	-0.128	-2.32	3.783	16.73	1.939	6.30
Norway	0.486	2.25	-0.202	-3.48	-0.331	-4.54	0.111	0.56
Sweden	-2.268	-19.04	-0.009	-0.19	1.856	25.99	0.411	2.80
2004	600.0	90.0	-0.040	-0.36	0.222	0.89	-0.142	-0.90
2005	Reference category	sategory	Reference category	category	Reference category	category	Reference category	sategory
2006	0.218	1.69	-0.013	-0.24	0.005	0.02	-0.180	-0.83
2007	-0.391	-0.89	0.108	96.0	-0.073	-0.90	0.348	1.02
January	Reference category	sategory	Reference category	category	Reference category	category	Reference category	sategory
February	0.136	0.17	0.198	1.45	-0.110	-0.31	-0.108	-0.28
March	-0.462	-1.22	0.266	1.27	-0.153	-0.61	0.271	0.46
April	-1.371	-1.50	0.181	0.82	-0.225	-1.39	1.553	2.71
May	4.028	-1.71	0.112	0.43	1.226	1.52	2.735	2.04
June	-3.428	-2.16	0.607	1.03	0.832	1.04	1.882	2.95
July	-4.394	-2.82	0.980	0.98	0.038	0.11	2.000	2.45

Table A.2.7, continued

	Ш		ES		EU		Ш	
W	Marg. effect	t-value						
August	-5.103	-3.47	0.321	1.19	0.771	1.29	1.672	1.37
September	-2.641	-1.96	0.162	0.75	0:020	0.18	2.071	1.80
October	-0.586	-0.56	0.314	1.36	-0.823	-2.80	0.933	1.30
November	-1.205	-0.84	0.331	0.64	0.440	0.52	0.299	0.44
December	-58.156	-3.88	22.931	5.90	5.346	2.33	24.330	3.15
Pseudo-R <sup>2</sup>	0.149							
Observations	348,683							

Source: EU-SILC, own calculations. – Notes: All coefficients are multiplied by 1,000. EE, ES, EU, El indicate employment in period t and employment, self-employment, unemployment and inactivity in period t+1, respectively. – Multinomial logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. Results for transitions into education are not presented in this table due to small sample sizes.

 Table A.2.8

 Regression results: Monthly transitions from employment, Mediterranean

Marg. e Male Z. Female Ref			)		3		Ī	
ale	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
	2.128	3.25	0.116	3.44	-1.243	-2.56	-1.000	•
	Reference category	tegory	Reference category	sategory	Reference category	category	Reference category	ategory
Age 15-24 Ref	Reference category	tegory	Reference category	sategory	Reference category	category	Reference category	ategory
Age 25-54	1.701	3.64	0.054	1.31	-1.587	-4.74	-0.161	-1.08
Age 55-65	-0.647	-0.59	0.116	1.09	-1.706	-7.17	2.264	2.78
Single Ref	Reference category	tegory	Reference category	sategory	Reference category	category	Reference category	ategory
Married living with partner -0.3	-0.230	-0.59	-0.077	-2.23	-0.325	-0.53	0.644	3.31
Not married living with partner	-1.499	-2.99	-0.083	-1.05	0.931	1.48	0.654	2.38
Low skilled (ISCED 0-2)	-2.015	-3.73	0.051	4.50	1.688	4.81	0.277	1.48
Medium skilled (ISCED 3-4)	Reference category	tegory	Reference category	sategory	Reference category	category	Reference category	ategory
High skilled (ISCED 5) 0.3	0.323	0.44	-0.010	-0.20	-0.235	-0.42	-0.077	-0.53
Number of children (<= 4) in household	-0.451	-2.70	0.024	2.41	0.343	4.40	0.085	0.99
Number of children (5-14 years) in household	-0.075	-0.81	-0.003	-0.15	0.155	3.41	-0.076	-1.05
Number of elderly (>=65 ) in household	0.212	1.03	-0.011	-0.76	-0.208	-0.97	0.009	0.29
Full-time employed partner in household	1.177	3.51	0.023	0.71	-1.010	-2.67	-0.189	-2.46
Part-time employed partner in household	1.421	6.29	-0.024	-1.03	-0.974	-3.92	-0.424	-4.15
Inactive/unemployed partner in household Ref	Reference category	tegory	Reference category	ategory	Reference category	category	Reference category	ategory
Full-time employed Ref	Reference category	tegory	Reference category	ategory	Reference category	category	Reference category	ategory
Part-time employed -2.	-2.171	-2.83	0.364	2.74	1.057	1.54	0.747	6.47
OCCUPATION								
Legislators, Senior officials and Managers	Reference category	tegory	Reference category	sategory	Reference category	category	Reference category	ategory
Professionals 1.3	1.374	2.68	-0.230	-3.24	-0.685	-1.40	-0.459	-4.29
Technicians and Associate Professionals 1.:	1.723	4.41	-0.285	-4.58	-0.852	-2.14	-0.584	-6.63
Clerks 1.:	1.754	4.38	-0.364	-4.58	-0.791	-1.70	-0.596	-7.15

Table A.2.8, continued

			ES		EU			
	Marg. effect	t-value						
Service workers and shop and market sales workers	0.059	0.11	-0.224	-3.88	0.304	0.71	-0.139	-0.78
Skilled agricultural and fishery workers	-8.307	-10.45	0.018	0.38	6.819	6.82	1.472	2.92
Craft and related trades workers	-0.606	-1.36	-0.271	-5.49	0.972	2.76	-0.094	-0.59
Plant and machine operators and assemblers	0.478	0.57	-0.245	-5.29	-0.009	-0.01	-0.223	-1.56
Elementary occupations	-3.428	-8.32	-0.280	-3.83	3.226	16.06	0.482	2.92
COUNTRY								
Cyprus	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	ategory
Spain	0.545	2.08	-0.033	-2.43	-0.495	-3.07	-0.016	-0.18
Greece	-1.226	-8.62	0.288	3.07	0.553	6.61	0.387	5.39
Italy	1.907	12.78	0.025	1.91	-2.812	-13.08	0.881	13.36
Portugal	1.856	64.01	0.046	2.88	-1.838	-25.61	-0.063	06.0-
2004	-0.203	-0.75	0.060	1.83	0.250	1.06	-0.107	-2.13
2005	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	sategory
2006	0.526	1.80	0.027	99.0	-0.291	-2.12	-0.262	-2.21
2007	0.418	2.26	0.026	0.38	-0.091	-1.71	-0.354	4.08
January	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	sategory
February	-2.533	-2.26	0.082	0.38	1.816	2.26	0.636	4.26
March	-3.902	-16.16	090'0	0.68	2.844	8.76	1.000	4.68
April	-3.205	-5.75	0.163	1.05	2.073	2.18	0.971	2.13
May	-8.958	-8.15	0.459	0.99	6.726	8.45	1.775	3.62
June	-16.248	-11.73	0.824	3.05	11.711	12.49	3.709	4.66
July	-10.111	-6.66	0.224	0.74	7.102	2.60	2.786	15.92

Table A.2.8, continued

	33		ES		EU		□	
	Marg. effect	t-value						
August	-10.243	-3.22	1.011	3.10	6.835	2.99	2.390	3.12
September	-10.153	-5.09	0.958	4.04	7.100	5.12	2.092	4.33
October	-13.561	-4.90	0.505	1.1	10.419	4.93	2.637	3.06
November	-8.677	-3.94	0.353	1.07	6.169	3.96	2.156	3.18
December	-100.826	-5.41	34.891	2.93	34.858	4.89	31.029	14.53
Pseudo-R²	0.121							
Observations	980,434							

Source: EU-SILC, own calculations. – Notes: All coefficients are multiplied by 1,000. EE, ES, EU, EI indicate employment in period t and employment, self-employment, unemployment and inactivity in period t+1, respectively. – Multinomial logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. Results for transitions into education are not presented in this table due to small sample sizes.

Table A.2.9 Regression results: Monthly transitions from employment, CEE

					D D		ū	
	Marg. effect	t-value						
Male	0.684	5.97	0.356	8.24	0.095	1.24	-1.134	-12.07
Female	Reference category	sategory	Reference category	category	Reference category	category	Reference category	sategory
Age 15-24	Reference category	sategory	Reference category	category	Reference category	category	Reference category	sategory
Age 25-54	1.830	98.9	0.118	1.98	-0.957	-7.59	-0.914	-2.83
Age 55-65	-1.551	-2.47	-0.127	-1.96	-0.995		2.686	4.97
Single	Reference category	sategory	Reference category	category	Reference category	category	Reference category	sategory
Married living with partner	0.109	0.74	-0.052	-1.77	-0.430	-3.53	0.418	6.57
Not married living with partner	-1.303	-6.49	0.160	1.47	0.332	1.94	0.820	6.22
Low skilled (ISCED 0-2)	-1.076	-2.70	0.001	0.02	0.894	3.58	0.179	1.04
Medium skilled (ISCED 3-4)	Reference category	sategory	Reference category	category	Reference category	category	Reference category	sategory
High skilled (ISCED 5)	0.483	2.71	0.250	3.94	-0.522	-2.15	-0.203	-2.12
Number of children (<= 4) in household	-0.542	-6.63	-0.020	-0.78	0.169	3.31	0.394	5.51
Number of children (5-14 years) in household	0.099	1.16	0.032	1.24	0.077	1.53	-0.204	-3.64
Number of elderly (>=65) in household	0.207	1.11	-0.009	-0.45	-0.104	-2.10	960.0-	-0.56
Full-time employed partner in household	0.540	3.20	-0.038	-0.41	-0.344	-2.00	-0.167	-1.14
Part-time employed partner in household	-0.062	-0.39	0.293	2.60	-0.126	-0.52	-0.101	-0.70
Inactive/unemployed partner in household	Reference category	sategory	Reference category	category	Reference category	category	Reference category	sategory
Full-time employed	Reference category	sategory	Reference category	category	Reference category	category	Reference category	sategory
Part-time employed	-3.691	-16.66	1.207	5.64	1.341	5.16	1.068	6.38
OCCUPATION								
Legislators, Senior officials and Managers	Reference category	sategory	Reference category	category	Reference category	category	Reference category	sategory
Professionals	0.178	0.35	-0.006	-0.02	-0.466	-3.24	0.285	1.37
Technicians and Associate Professionals	-0.518	-1.08	-0.178	-1.65	0.581	1.51	0.115	1.10
Clerks	-0.499	-0.62	-0.427	-9.14	0.690	1.09	0.237	1.21

Table A.2.9, continued

	EE		ES		EU		Ξ	
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
Service workers and shop and market sales workers	-2.551	-2.43	-0.121	-0.79	1.893	2.62	0.783	2.91
Skilled agricultural and fishery workers	-12.308	-2.03	4.976	1.35	5.081	2.65	2.259	2.14
Craft and related trades workers	-2.249	-2.95	-0.197	-1.72	1.841	2.62	0.608	4.01
Plant and machine operators and assemblers	-1.106	-1.90	-0.325	-3.77	0.973	1.88	0.464	3.49
Elementary occupations	-4.165	-3.38	-0.151	-1.45	3.423	3.75	0.894	3.08
COUNTRY								
Czech Republic	Reference category	ategory	Reference category	sategory	Reference category	category	Reference category	ategory
Bulgaria	-2.629	-10.42	0.472	3.92	2.279	7.62	-0.132	-4.98
Estonia	-0.189	-1.28	0.321	92.9	-0.108	-1.23	-0.044	-0.80
Hungary	-2.116	-21.67	0.108	2.32	1.038	7.89	0.973	13.86
Lithuania	-0.506	-4.44	0.177	5.77	969.0	7.47	-0.385	-13.16
Latvia	-0.280	-2.52	0.300	7.04	0.235	2.34	-0.268	-8.61
Poland	-1.488	-16.17	0.645	13.91	0.729	8.58	0.114	3.27
Romania	3.206	25.61	-0.360	-3.59	-1.728	-13.92	-1.112	-17.60
Slovenia	0.398	4.82	0.014	0.69	-0.148	-1.64	-0.265	-5.81
Slovakia	-0.252	-2.27	0.519	7.36	0.172	3.06	-0.435	-12.16
2004	0.792	10.75	-0.191	-8.00	-0.245	-3.16	-0.358	-11.78
2005	Reference category	ategory	Reference category	sategory	Reference category	category	Reference category	ategory
2006	0.153	1.26	-0.016	-0.29	-0.228	-3.61	0.091	1.76
2007	0.011	0.05	0.061	0.70	-0.446	-2.13	0.370	4.19
January	Reference category	ategory	Reference category	sategory	Reference category	category	Reference category	ategory
February	-0.407	-1.07	-0.085	-0.59	0.303	1.05	0.197	0.83

Table A.2.9, continued

	田		ES		EU		□	
	Marg. effect	t-value						
March	-2.514	-2.99	0.466	4.60	0.773	1.75	1.282	2.82
April	-3.322	-3.62	0.419	2.70	1.697	3.08	1.214	2.75
May	-6.985	-7.27	0.550	3.42	4.224	5.43	2.208	6.67
June	-15.757	-3.96	1.274	5.92	8.307	3.21	6.178	4.42
July	-8.479	-3.69	0.351	2.96	5.467	3.01	2.662	3.93
August	-11.801	-4.30	0.624	5.28	6.112	3.20	5.044	5.19
September	-10.919	-4.67	0.481	3.18	6.880	4.51	3.553	4.06
October	-13.212	-6.41	0.251	2.59	8.773	6.07	4.193	5.68
November	-9.545	-4.86	0.339	2.98	6.588	4.11	2.626	5.51
December	-57.132	-6.50	9.675	1.56	21.276	7.08	26.138	10.42
Pseudo-R <sup>2</sup>	0.111							
Observations	1,253,782							

Source: EU-SILC, own calculations. – Notes: All coefficients are multiplied by 1,000. EE, ES, EU, El indicate employment in period t and employment, self-employment, unemployment and inactivity in period t+1, respectively. – Multinomial logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. Results for transitions into education are not presented in this table due to small sample sizes.

Table A.2.10 Regression results: Monthly transitions from employment, UK and Ireland

			ES		Π		亩	
	Marg. effect	t-value						
Male	1.748	6.31	0.000	0.39	0.231	0.95	-1.941	-71.66
Female	Reference category	category	Reference category	category	Reference category	category	Reference category	sategory
Age 15-24	Reference category	category	Reference category	category	Reference category	category	Reference category	sategory
Age 25-54	2.228	157.12	0.000	-10.96	-0.634	-2.90	-1.277	-31.93
Age 55-65	-0.479	-1.68	0.000	-0.26	-1.010		1.640	6.32
Single	Reference category	category	Reference category	category	Reference category	category	Reference category	sategory
Married living with partner	-1.081	-9.16	0.001	3.76	-0.495	-13.46	1.616	12.34
Not married living with partner	-2.013	-5.63	0.000	0.00	-0.030	-0.32	2.004	6.64
Low skilled (ISCED 0-2)	-0.160	-1.61	-0.001	-0.56	0.364	11.93	-0.154	-3.95
Medium skilled (ISCED 3-4)	Reference category	category	Reference category	category	Reference category	category	Reference category	sategory
High skilled (ISCED 5)	0.622	9.41	-0.001	-0.70	-0.014	-0.11	-0.615	-12.06
Number of children (<= 4) in household	-0.052	-2.13	0.000	0.35	-0.360	-18.59	0.457	11.27
Number of children (5-14 years) in household	1.033	5.55	0.001	0.67	-0.194	-13.72	-0.848	-5.01
Number of elderly (>=65 ) in household	-1.055	-19.71	0.002	0.73	0.012	90.0	1.063	14.64
Full-time employed partner in household	1.108	5.69	0.000	-0.67	-0.389	-30.76	-0.700	-3.47
Part-time employed partner in household	1.610	22.91	0.000	-2.05	-0.619	-3.88	-0.951	-8.18
Inactive/unemployed partner in household	Reference category	category	Reference category	category	Reference category	category	Reference category	sategory
Full-time employed	Reference category	category	Reference category	category	Reference category	category	Reference category	sategory
Part-time employed	-1.470	-3.48	-0.002	-0.88	0.361	3.59	0.972	5.78
OCCUPATION								
Legislators, Senior officials and Managers	Reference category	category	Reference category	category	Reference category	category	Reference category	sategory
Professionals	-0.287	-1.80	-0.001	-0.68	-0.038	-0.34	0.343	8.63
Technicians and Associate Professionals	0.834	70.26	-0.001	-0.73	-0.058	-6.94	-0.754	-151.16
Clerks	0.249	3.44	-0.002	-0.68	0.535	3.54	-0.739	-14.15

Table A.2.10, continued

	出		ES		EU		□	
	Marg. effect	t-value						
Service workers and shop and market sales workers	-0.122	-0.26	-0.002	-0.63	0.526	1.32	-0.440	-4.86
Skilled agricultural and fishery workers	-3.307	-5.45	-0.003	-0.66	4.529	6.37	-1.116	-6.62
Craft and related trades workers	-0.647	-1.15	-0.001	-0.75	0.908	1.53	-0.203	-66.02
Plant and machine operators and assemblers	-1.730	-4.76	-0.002	-0.67	1.752	6.43	-0.031	-0.30
Elementary occupations	-1.771	-2.21	-0.001	-1.12	1.889	2.63	-0.092	-0.91
COUNTRY								
Ireland	Reference category	category	Reference category	sategory	Reference category	category	Reference category	sategory
United Kingdom	2.547	13.13	-0.002	-0.77	-2.617	-13.80	0.185	4.40
2004	0.629	17.43	-0.001	-0.66	0.203	3.50	-0.799	-10.22
2005	Reference category	category	Reference category	sategory	Reference category	category	Reference category	sategory
2006	-0.890	-5.60	0.000	-0.37	0.389	2.99	0.442	6.92
2007	-0.647	-7.53	-0.001	-0.54	0.206	2.29	0.388	10.88
January	Reference category	category	Reference category	sategory	Reference category	category	Reference category	sategory
February	0.183	0.39	0.012	99.0	-0.690	-2.20	0.512	2.85
Warch	-0.999		0.003	99.0	-0.075	-0.13	1.001	2.91
April	-0.755	-0.87	-0.026	-0.62	-0.345	-1.02	1.120	1.80
May	-1.392	-3.53	900'0	99.0	0.099	0.62	1.325	4.38
June	-2.580	-6.95	0.023	99.0	1.635	5.55	0.972	96.6
July	-0.869	-1.49	0.023	99.0	0.571	2.00	0.150	0.39
August	-2.747	-2.85	0.018	0.67	0.427	0.64	1.883	3.18
September	-0.902	-2.68	0.008	0.67	0.053	0.44	0.712	2.36
October	-2.210	-2.49	0.032	0.67	0.410	69.0	1.841	6.79

Table A.2.10, continued

	EE		ES		EU			
	Marg. effect t-value	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect t-value Marg. effect t-value Marg. effect	t-value
November	0.419	0.44	0:020	0.67	0.346	0.76	-0.662	-1.24
December	-47.051	-22.65	3.402	5.48	4.604	24.01	37.928	13.77
Pseudo-R²	0.159							
Observations	166,711							

Source: EU-SILC, own calculations. – Notes: All coefficients are multiplied by 1,000. EE, ES, EU, El indicate employment in period t and employment, self-employment, unemployment and inactivity in period t+1, respectively. – Multinomial logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. Results for transitions into education are not presented in this table due to small sample sizes.

Table A.2.11 Regression results: Yearly transitions from employment

	ĒĒ		EE_JC	C	ES	(0	EU		Ξ	
	Marg. effect	t-value								
Male	6900.0	1.16	0.0083	2.66	0.0071	69:5	-0.0040	-2.03	-0.0184	-6.68
Female	Reference category	category								
Age 15-24	Reference category	category								
Age 25-54	0.0967	8.53	-0.0638	-8.32	0.0001	0.13	-0.0158	-8.69	-0.0092	-2.66
Age 55-65	0.0223	1.38	-0.0703	-27.64	-0.0017	-1.79	-0.0109	-4.74	0.0629	4.11
Single	Reference category	category								
Married	0.0334	4.12	-0.0298	-4.61	-0.0024	-2.19	-0.0102	-6.48	0.0107	5.73
Living with partner	-0.0128	-1.47	0.0013	0.22	0.0002	0.17	-0.0013	-1.11	0.0132	3.29
Low skilled (ISCED 0-2)	-0.0087	-1.42	-0.0046	-1.18	-0.0001	-0.10	0.0089	69.9	0.0049	3.55
Medium skilled (ISCED 3-4)	Reference category	category								
High skilled (ISCED 5)	-0.0009	-0.24	0.0135	6.53	-0.0028	-2.11	-0.0030	-3.18	-0.0067	-3.90
Number of children (<= 4) in household	-0.0205	-7.85	0.0095	6.13	0.0012	2.46	0.0026	3.76	0.0075	3.74
Number of children (5-14 years) in household	0.0041	2.44	-0.0031	-3.18	0.0008	2.14	0.0013	2.10	-0.0029	-4.32
Number of elderly (>=65 ) in household	0.0038	1.60	-0.0085	-5.57	0.0008	1.80	0.0009	1.06	0.0031	3.26
Full-time employed partner in household	0.0110	5.09	-0.0019	-0.73	0.0002	0.34	-0.0056	-2.37	-0.0032	-1.45
Part-time employed partner in household	0.0181	2.35	-0.0028	-0.51	-0.0007	-0.80	-0.0076	-3.42	-0.006	-2.28
Inactive/unemployed partner in household	Reference category	category								
Full-time employed	Reference category	category								
Part-time employed	-0.0646	-8.23	0.0222	4.79	0.0000	3.45	0.0126	5.41	0.0176	8.16
OCCUPATION										
Legislators, Senior officials and Managers	Reference category	category								
Professionals	0.0234	2.65	-0.0051	-0.80	-0.0070	-2.94	-0.0109	-7.45	-0.0004	-0.20
Technicians and Associate Professionals	0.0166	2.88	0.0021	0.49	-0.0098	-6.19	-0.0042	-2.05	-0.0044	-2.58
Clerks	0.0150	1.44	0.0034	0.43	-0.0125	-11.62	0.0009	0.30	-0.0066	-2.75

Table A.2.11, continued

	E.		EE_JC	2	ES		EU			
	Marg. effect	t-value								
Service workers and shop and market sales workers	-0.0192	-3.57	0.0198	5.12	-0.0091	-8.01	0.0077	2.35	0.0007	0.24
Skilled agricultural and fishery workers	-0.0446	-3.18	0.0244	2.48	-0.0004	-0.13	0.0151	3.04	0.0058	1.19
Craft and related trades workers	-0.0199	-4.50	0.0160	2.88	-0.0081	-5.97	0.0111	4.25	0.0016	0.83
Plant and machine operators and assemblers	-0.0099	-1.52	0.0165	2.94	-0.0105	-10.14	0.0053	2.11	-0.0007	-0.47
Elementary occupations	-0.0446	-4.92	0.0309	4.87	-0.0089	-6.39	0.0202	4.23	0.0029	1.25
COUNTRY										
Austria	Reference category	category								
Belgium	0.0187	11.61	0.0018	1.42	-0.0048	-13.99	-0.0058	-12.55	-0.0093	-17.78
Bulgaria	-0.0743	-5.16	0.0275	5.68	0.0365	3.65	0.0201	3.86	-0.0107	-3.10
Cyprus	-0.0402	-12.91	0.0558	22.98	-0.0003	-0.56	0.0000	0.00	-0.0153	-23.87
Czech Republic	0.0061	4.01	0.0086	7.87	-0.0035	-9.49	-0.0051	-7.02	-0.0054	-6.54
Germany	0.0578	12.50	-0.0355	-9.30	-0.0073	-8.54	-0.0086	-5.91	-0.0061	-1.69
Denmark	-0.0505	-8.14	0.0329	29.6	0.0070	4.21	0.0042	2.48	-0.0017	-0.44
Estonia	-0.0718	-38.48	0.0857	60.65	-0.0040	-22.47	-0.0007	-0.86	-0.0097	-19.21
Spain	-0.0698	-62.54	0.0558	57.64	0.0046	11.56	0.0184	18.33	-0.0097	-19.06
Finland	-0.0529	-32.88	0.0514	43.56	-0.0015	-4.73	0.0046	6.32	-0.006	-11.07
France	0.0087	3.47	0.0076	5.37	-0.0107	-26.49	0.0070	5.19	-0.0124	-8.33
Greece	-0.0222	-8.97	0.0005	0.30	0.0072	8.53	0.0190	12.93	-0.0045	-2.60
Hungary	-0.0541	-29.05	0.0245	23.67	0.0052	9.22	0.0132	13.58	0.0114	10.14
Ireland	-0.0057	-2.76	0.0183	13.31	-0.0007	-1.15	-0.0022	-4.56	-0.0111	-33.33
Italy	-0.0391	-26.42	0.0391	25.03	0.0091	24.40	-0.0046	-19.41	-0.0046	-10.53
Lithuania	-0.0570	-24.46	0.0617	33.72	-0.0003	-0.64	0.0091	6.53	-0.0136	-16.04
Luxembourg	0.0200	13.00	0.0046	3.59	-0.0092	-79.31	-0.0051	-20.00	-0.0099	-23.29
Latvia	-0.0486	-27.23	0.0335	29.49	0.0092	11.54	0.0123	8.69	-0.0068	-9.66
Netherlands	0.0079	2.72	0.0298	11.93	-0.0060	-11.83	-0.0180	-40.18	-0.0144	-27.75
Norway	-0.1196	-54.86	0.1402	65.95	-0.0013	-4.28	-0.0104	-18.34	-0.0131	-30.05

Table A.2.11, continued

	Ш	.33	EE_JC	Dr.	ES	(0	EU		E	
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
Poland	-0.0099	-3.72	0.0035	3.04	-0.0009	-2.23	0.0103	15.68	-0.0025	-1.86
Portugal	-0.0093	-2.19	0.0210	6.94	0.0000	0.00	0.0043	3.83	-0.0155	-28.39
Romania	0.0609	8.78	-0.0304	-14.59	0.0037	1.03	-0.0186	-21.81	-0.0149	-5.07
Sweden	-0.1009	-22.73	0.1128	27.13	-0.0014	-2.00	-0.0011	-0.97	-0.0142	-30.47
Slovenia	0.0082	3.13	0.0028	1.82	0.0057	4.15	-0.0021	-2.07	-0.0146	-12.72
Slovakia	-0.0286	-11.62	0.0429	25.70	0.0003	0.68	-0.0024	-3.06	-0.0117	-14.43
United Kingdom	-0.1362	-22.74	0.1387	42.45	0.0007	0.38	-0.0086	-7.71	0.0029	0.76
2004	0.0042	0.43	-0.0181	-6.17	0.0048	2.00	0.0045	2.18	0.0043	1.22
2005	-0.0141	-1.65	0.0084	1.06	0.0010	0.78	0.0031	3.19	0.0013	1.86
2006	Reference	Reference category	Reference category	sategory						
2007	-0.0239	-1.21	0.0031	1.05	0.0025	0.63	0.0079	1.66	9600.0	0.83
Pseudo-R²	0.0893									
Observations	313,837									
ADDITIONAL EXPLANATORIES										
Densely populated area	900000	0.15	-0.0002	-0.06	-0.0016	-2.44	0.0007	0.93	0.0003	0.26
Intermediate populated area	Reference	Reference category	Reference category	sategory						
Thinly populated area	-0.0001	-0.03	-0.0032	-1.34	0.0007	1.06	0.0018	1.16	0.0008	09.0
Pseudo-R²	0.0899									
Observations	295,847									
	Reference	Reference category	Reference category	sategory						
Years of employment	0.0032	34.04	-0.0024	-32.43	-0.0003	-8.57	-0.0008	-9.64	0.0003	4.23
Pseudo-R²	0.0922									
Observations	291,153									

Source: EU-SILC, own calculations. – Notes: EE\_JC, ES, EU, EI indicate employment in period t and employment without a job change, employment with a job change, self-employment, unemployment and inactivity in period t+1, respectively. – Multinomial logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. Results for transitions into education are not presented in this table due to small sample sizes. See Section 2.1 for explanation of the additional explanatories.

Table A.2.12 Regression results: Monthly transitions from education

	×		뷫		DX.		ズ	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
Male	-1.200	-2.59	0.700	1.84	0.300	2.78	0.200	1.79
Female	Reference category	ategory	Reference category	sategory	Reference category	sategory	Reference category	ategory
Age 15-24	Reference category	ategory	Reference category	sategory	Reference category	sategory	Reference category	ategory
Age 25-54	-3.400	-2.69	1.300	1.70	1.500	3.10	0.600	1.55
Age 55-65	1.900	0.64	-4.400	-2.86	-1.800	-2.60	4.300	1.94
Single	Reference category	ategory	Reference category	sategory	Reference category	sategory	Reference category	ategory
Married living with partner	-0.700	-0.56	-1.900	-3.39	0.700	1.40	1.900	2.27
Not married living with partner	•	•	0.700	1.17	0.300	0.65	0.000	00:00
Low skilled (ISCED 0-2)	5.400	4.02	-4.400	-5.00	-1.100	-2.90	0.200	0.99
Medium skilled (ISCED 3-4)	Reference category	ategory	Reference category	sategory	Reference category	sategory	Reference category	ategory
High skilled (ISCED 5)	-7.400	-4.04	4.400	5.53	2.000	2.42	1.000	2.78
Number of children (<= 4) in household	-3.100	-1.98	0.400	0.31	0.900	0.82	1.800	2.20
Number of children (5-14 years) in household	-1.100	-0.79	1.000	1.08	0.000	0.00	0.100	0.22
Number of elderly (>=65 ) in household	0.400	0.72	-0.600	-1.29	0.100	0.48	0.100	1.09
Full-time employed partner in household	-14.200	-2.89	10.700	3.19	1.800	1.81	1.700	1.91
Part-time employed partner in household	-20.800	-2.48	19.600	2.21	0.300	0.33	0.900	0.89
Inactive/unemployed partner in household	Reference category	ategory	Reference category	ategory	Reference category	sategory	Reference category	ategory
COUNTRY								
Austria	Reference category	ategory	Reference category	ategory	Reference category	sategory	Reference category	ategory
Belgium	2.700	7.44	-4.300	-17.62	2.000	2.66	-0.300	-8.11
Bulgaria	-2.100	-4.13	-1.400	-8.70	3.900	8.72	-0.400	-8.33
Cyprus	2.300	92.9	-4.500	-19.65	1.400	6.54	0.800	8.79

Table A.2.12, continued

	×		XE		X		$\overline{x}$	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
Czech Republic	0.500	1.01	-3.800	-9.72	4.700	12.63	-1.300	-15.48
Germany	3.200	5.13	-3.200	-6.17	0.600	3.24	-0.600	-8.33
Denmark	1.700	3.79	-0.800	-2.42	0.200	1.46	-1.100	-12.36
Estonia	-0.400	-1.04	-0.700	-2.75	1.100	7.05	-0.100	-2.04
Spain	-0.100	-0.33	-0.300	-3.09	1.200	5.48	-0.800	-17.39
Finland	-52.500	-29.20	36.600	25.09	12.400	17.20	3.500	14.23
France	2.600	5.44	-3.500	-8.84	2.200	7.31	-1.300	-15.85
Greece	2.500	2.90	-4.400	-11.58	2.000	8.44	-0.100	-1.69
Hungary	3.600	13.48	-4.300	-15.58	1.000	10.10	-0.300	-8.33
Ireland	-7.100	-10.07	2.000	11.68	3.000	7.83	-0.900	-13.64
Italy	0.900	1.99	-6.100	-18.54	4.900	11.29	0.200	7.14
Lithuania	2.000	6.78	-0.800	-3.77	-0.100	-1.49	-1.200	-17.14
Luxembourg	4.800	11.82	-4.100	-16.08	0.400	1.91	-1.100	-15.71
Latvia	-1.000	-2.56	0.400	1.47	1.500	9.49	-0.900	-14.75
Netherlands	2.700	12.68	-0.100	-0.59	-1.500	-12.20	-1.100	-15.49
Norway	-2.100	-5.43	2.000	6.21	0.500	6.25	-0.400	-5.33
Poland	-0.200	-0.59	-2.500	-10.08	3.600	12.12	-0.900	-14.75
Portugal	0.900	3.00	-3.800	-14.45	3.200	12.50	-0.300	-9.09
Romania	8.400	24.85	-6.300	-20.45	-1.200	-9.30	,	
Sweden	-43.000	-12.87	25.700	11.40	14.200	9.83	3.000	4.42
Slovenia	4.500	18.29	-4.200	-16.87	0.600	7.89	-1.000	-16.39

Table A.2.12, continued

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	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
Slovakia	1.600	3.47	-4.900	-15.61	4.600	11.33	-1.300	-16.67
United Kingdom	-4.900	-5.65	2.400	4.24	2.800	6.41	-0.300	-4.69
2004	0.400	0.50	0.100	0.19	-0.500	-1.42	-0.100	-0.72
2005	Reference category	ategory	Reference category	sategory	Reference category	ategory	Reference category	ategory
2006	-0.800	-0.64	1.000	1.05	-0.300	-0.83	0.100	99.0
2007	-0.300	-0.22	1.100	1.03	-0.800	-1.89	0.000	0.00
January	Reference category	ategory	Reference category	sategory	Reference category	ategory	Reference category	ategory
February	0.100	0.14	0.300	0.62	0.000	00:00	-0.400	-1.21
March	-2.000	-1.87	1.200	1.08	0.400	0.48	0.400	0.73
April	-5.800	-1.89	5.100	1.80	0.700	0.98	0.000	0.00
May	-40.200	-2.79	27.400	2.49	6.200	2.18	6.500	2.55
June	-90.100	-6.07	46.700	3.95	25.200	3.67	18.200	3.87
July	-31.300	-5.95	17.800	5.23	7.500	2.63	9.000	3.27
August	-29.200	-4.20	21.600	3.84	6.200	2.20	1.400	1.27
September	-16.200	-5.28	10.800	3.38	4.700	3.31	0.700	1.34
October	-6.600	-3.39	4.600	2.22	1.500	2.04	0.500	1.08
November	-5.000	-1.23	5.100	1.26	-0.200	-0.29	0.100	0.26
December	-197.000	-6.44	119.600	5.35	46.900	3.22	30.400	7.64
Pseudo-R²	0.150							
Observations	1,167,345							

Table A.2.12, continued

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	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect t-value Marg. Effect t-value Marg. Effect t-value Marg. Effect t-value	t-value
ADDITIONAL EXPLANATORIES								
Densely populated area	0.905	1.65	-0.136	-0.28	-0.681	-2.62	-0.0890	-0.77
Intermediate populated area	Reference category	ategory	Reference category	ategory	Reference category	sategory	Reference category	sategory
Thinly populated area	-0.574	-1.23	0.189	0.49	0.1425	0.77	0.2427	1.95
Pseudo-R²	0.1466							
Observations	639,005							

Source: EU-SILC, own calculations. – Notes: XX, XE, XU, XI indicate education in period t and education, employment, unemployment and inactivity in period t+1, respectively. – Multinomial logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. See Section 2.1 for explanation of the additional explanatories.

Table A.2.13 Regression results: Transitions from education, Continental Europe

Natio         Harg Effect         t-value         Marg Effect         t-value           Female         -1.200         -0.372         0.800         0.77           Female         Reference category         Reference category         Reference category           Age 15-24         7.300         -1.38         1.800         1.131           Age 55-65         7.300         -1.36         1.130         1.130           Not married living with partner         -1.300         0.22         -2.400         -1.131           Low skilled (ISCED 0-2)         4.300         0.24         0.700         1.136           Number of children (SCED 3-4)         Reference category         Reference category         1.59         -2.400         -1.131           Number of children (SCED 5)         4.800         -1.44         3.600         2.24           Number of children (S-14 years) in household         -4.800         -1.47         4.000         2.40           Number of children (S-14 years) in household         -4.600         -1.47         4.000         2.40           Part-time employed partner in household         -1.450         -2.36         4.23         37.50         4.23           COUNTRY         Austria         4.600         -4.36         4	Mar Nar	t-value	Mara Effort	•		t-value
1.200			ivialy. Lilect	t-value	Marg. Effect	
Reference category   Reference category   Reference category		0.783	0.100	0.513	0.300	2.055
Reference category   Reference category   Reference category   1.800   1.800   1.800   1.800   1.800   1.800   1.800   1.800   1.300   1.500   1.500   1.500   1.500   1.500   1.500   1.500   1.500   1.500   1.500   1.600   1.44   1.000   1.600   1.47   1.000   1.600   1.47   1.000   1.600   1.600   1.47   1.000   1.600   1		category	Reference category	category	Reference category	ategory
1.3800 -1.36 1.800 -1.36 1.800 -1.36 1.800 -1.36 1.800 -1.36 1.800 -1.36 1.800 -1.36 1.800 -1.36 1.800 -1.36 1.800 -1.360 0.22 1.400 1.300 0.22 1.400 1.300		category	Reference category	category	Reference category	ategory
7.900         2.28         -7.900            Reference category         Reference category         Reference category           -1.300         -2.43         0.700           -1.300         -2.43         0.700           4.300         1.59         -3.000           -3.000         -1.44         3.600           -3.000         -0.73         -2.600           -3.000         -1.47         4.000           -4.600         -1.47         4.000           -19.500         -2.96         16.200           -36.600         -4.96         37.500           Reference category         Reference category         Reference category           8.400         -4.800           5.600         3.30         -5.400           5.800         3.57         -6.100		1.13	2.000	1.97	0.000	00:00
Reference category       Reference category       Reference category         -1.300       -2.43       0.700         -1.300       -2.43       0.700         -4.300       -1.59       -3.000         -3.000       -1.44       3.600         -3.000       -1.47       4.000         -4.600       -1.47       4.000         -19.500       -2.96       16.200         -19.500       -2.96       16.200         -36.600       -4.96       37.500         Reference category       Reference category       Reference category         8.400       -4.800         5.600       3.30       -5.400         5.800       3.57       -6.100		-10.17	-2.100	-11.60	2.000	0.59
-1.300       -2.443       -2.440         -1.300       -2.43       0.700         4.300       1.59       -3.000         A+800       -1.44       3.600         -3.000       -0.73       -2.600         -3.000       -1.47       4.000         -4.600       -1.47       4.000         -19.500       -2.96       16.200         -36.600       -4.96       37.500         AFFerence category       Reference category       Reference category         Reference category       A+800         3.400       4.43       -4.800         5.600       3.30       -5.400         5.800       3.57       -6.100		category	Reference category	category	Reference category	ategory
-1.300         -2.43         0.700           4.300         1.59         -3.000           A.800         -1.44         3.600           -3.000         -0.73         -2.600           -4.600         -1.47         4.000           -19.500         0.47         1.000           -19.500         -2.96         16.200           36.600         -4.96         37.500           AReference category         Reference category         Reference category           8.400         -4.800           5.600         3.30         -5.400           5.800         3.57         -6.100		-1.87	0.600	1.32	1.300	1.58
4.300       1.59       -3.000         Reference category       Reference category         -4.800       -1.44       3.600         -3.000       -0.73       -2.600         -4.600       -1.47       4.000         0.600       0.47       1.000         -19.500       -2.96       16.200         -36.600       -4.96       37.500         Reference category       Reference category       Reference category         3.400       4.43       -4.800         5.600       3.30       -5.400         5.800       3.57       -6.100		1.19	1.000	1.08	-0.400	-2.58
Reference category         Reference category         Reference category           -4.800         -1.44         3.600           -3.000         -0.73         -2.600           -4.600         -1.47         4.000           -19.500         -2.96         16.200           -36.600         -4.96         37.500           A         Reference category         Reference category           Reference category         Reference category         -4.800           3.400         4.43         -5.400           5.800         3.57         -6.100		-1.36	-1.000	-2.11	-0.300	-5.88
A.800 -1.44 3.600 -3.000 -0.73 -2.600 -3.000 0.47 4.000 0.600 0.47 1.000 -19.500 -2.96 16.200 -36.600 -4.96 37.500  Reference category Reference category Reference category Seference C		category	Reference category	category	Reference category	ategory
-3.000 -0.73 -2.600 -0.600 -0.73 -2.600 -0.600 -1.47 4.000 -1.47 4.000 -1.9.500 -1.9.500 -2.96 16.200 -2.96 16.200 -3.6.600 -4.96 37.500 -4.96 37.500 -4.96 Reference category Reference category Reference category -4.800 -5.600 3.57 -6.100 -		2.27	0.900	0.64	0.400	0.82
hold		-1.02	3.200	1.31	2.400	1.25
1.000 19.500 -19.500 -2.96 16.200 -36.600 -4.96 37.500 Reference category Reference category 3.400 4.43 -4.800 -5.600 3.57 -6.100		2.40	-0.100	-0.17	0.600	0.51
-19.500       -2.96       16.200         -36.600       -4.96       37.500         A Reference category       Reference category       Reference category         3.400       4.43       -4.800       -         5.600       3.30       -5.400       -         5.800       3.57       -6.100       -		0.63	-1.200	-1.65	-0.300	-2.88
-36.600       -4.96       37.500         A Reference category       Reference category         3.400       4.43       -4.800         5.600       3.30       -5.400         5.800       3.57       -6.100		2.67	1.800	2.74	1.500	1.69
Reference category       Reference category         Reference category       Reference category         3.400       4.43       -4.800         5.600       3.30       -5.400         5.800       3.57       -6.100		4.28	-1.600	-5.61	0.700	0.51
3.400 Reference category Reference cate 3.400 4.43 -4.800 5.600 3.57 -5.400 -5.400		category	Reference category	category	Reference category	ategory
3.400 4.43 Reference category Reference category 5.600 3.30 -5.400 5.800 3.57 -6.100						
3.400       4.43       -4.800         5.600       3.30       -5.400         5.800       3.57       -6.100		category	Reference category	category	Reference category	ategory
5.600       3.30       -5.400         5.800       3.57       -6.100		-8.82	1.700	7.05	-0.200	-2.60
5.800 3.57 -6.100		-3.63	0.100	0.41	-0.400	-2.15
		-4.35	1.300	7.88	-1.000	-3.86
Luxembourg 4.400 4.27 -4.400 -7.		-7.13	0.600	1.50	-0.600	-6.00
Netherlands		1.95	-1.300	-6.07	-0.700	60.9-

Table A.2.13, continued

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	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
2004	-0.900	-1.84	1.300	5.44	-0.300	-0.72	-0.100	-0.45
2005	Reference category	sategory	Reference category	ategory	Reference category	ategory	Reference category	ategory
2006	0.200	0.05	-0.200	-0.06	-0.200	-0.67	0.100	92.0
2007	3.900	0.75	-3.700	-0.92	-0.600	-0.85	0.300	0.46
January	Reference category	sategory	Reference category	ategory	Reference category	sategory	Reference category	ategory
February	0.700	0.80	-0.400	-0.86	0.200	0.41	-0.500	-1.29
March	-0.600	-0.45	-0.800	-0.40	-0.100	-0.08	1.600	0.81
April	1.900	0.94	-0.800	-0.33	-0.500	-1.71	-0.600	-5.77
May	-7.500	-1.47	3.500	06.0	0.500	1.55	3.500	1.68
June	-73.800	-2.99	35.900	1.69	15.200	9.41	22.800	2.12
Anly	-25.300	-2.60	17.700	2.82	2.100	0.97	5.500	1.74
August	-32.900	-3.03	22.800	2.14	4.900	4.50	5.200	1.87
September	-16.200	-2.64	10.600	1.48	3.800	3.28	1.800	2.03
October	-4.400	-0.67	4.400	0.77	-0.600	-1.74	0.700	0.63
November	-0.200	-0.05	1.100	0.26	-1.200	-2.27	0.200	0.26
December	-76.300	-5.55	47.600	6.41	7.100	1.40	21.600	1.98
Pseudo-R²	0.104							
Observations	188,350							

Source: EU-SILC, own calculations. – Notes: XX, XE, XU, XI indicate education in period t and education, employment, unemployment and inactivity in period t+1, respectively. – Multinomial logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.2.14 Regression results: Transitions from education, Scandinavia

	×		兴		ΩX	_	ズ	
	Marg. Effect	t-value						
Male	1.300	1.35	-1.900	-4.10	0.500	0.85	0.200	0.42
Female	Reference category	category	Reference category	sategory	Reference category	category	Reference category	category
Age 15-24	Reference category	category	Reference category	sategory	Reference category	category	Reference category	category
Age 25-54	-3.800	-1.49	0.400	0.16	2.500	4.39	0.900	2.24
Age 55-65	-10.900	-1.80	4.300	0.92	0.700	0.75	2.900	1.10
Single	Reference category	category	Reference category	sategory	Reference category	category	Reference category	category
Married living with partner	0.800	0.22	-5.000	-1.97	2.300	1.81	1.900	2.07
Not married living with partner	-0.300	-0.09	0.900	0.31	-0.200	-0.21	-0.500	-1.46
Low skilled (ISCED 0-2)	15.300	90'9	-14.700	-4.87	-1.500	-4.13	1.000	2.89
Medium skilled (ISCED 3-4)	Reference category	category	Reference category	sategory	Reference category	category	Reference category	category
High skilled (ISCED 5)	-3.600	-1.65	3.400	2.54	0.000	0.00	0.300	0.73
Number of children (<= 4) in household	4.200	-0.55	0.000	0.00	0.000	0.00	4.100	2.78
Number of children (5-14 years) in household	2.500	1.02	-3.400	-0.68	-0.700	-1.22	-1.400	-10.22
Number of elderly (>=65 ) in household	2.800	1.46	-4.600	-1.67	1.700	3.30	0.100	0.15
Full-time employed partner in household	-6.400	-2.92	2.100	1.28	0.600	2.42	3.700	7.06
Part-time employed partner in household	20.900	28.40	-14.300	-17.70	-4.200	-17.87	-2.400	-6.17
Inactive/unemployed partner in household	Reference category	category	Reference category	sategory	Reference category	category	Reference category	category
COUNTRY								
Denmark	Reference category	category	Reference category	sategory	Reference category	category	Reference category	category
Finland	-93.000	-34.69	72.500	68.98	9.300	16.61	11.200	6.29
Norway	-12.800	-19.45	9.200	16.23	0.500	3.14	3.100	5.65
Sweden	-88.100	-14.74	62.500	22.73	13.200	7.33	12.400	4.91
2004	1.400	0.31	-2.500	-0.71	0.300	0.32	0.800	2.84
2005	Reference category	category	Reference category	sategory	Reference category	category	Reference category	category

Table A.2.14, continued

	×		¥		R		⋝	
	Marg. Effect	t-value						
2006	-2.100	-0.47	2.000	0.51	-0.800	-1.98	0.900	2.62
2007	-5.800	-3.13	6.100	3.48	-0.600	-2.13	0.300	0.88
January	Reference category	ategory	Reference category	ategory	Reference category	ategory	Reference category	sategory
February	-0.700	-0.07	3.400	0.47	-1.600	-0.83	-1.200	-1.22
March	1.600	0.13	1.100	0.12	-1.000	-0.47	-1.700	-2.14
April	-50.700	-0.99	51.600	1.08	0.100	0.03	-1.000	-1.72
May	-407.300	4.58	343.400	4.62	28.300	2.67	35.700	4.20
June	-226.800	-3.85	188.600	4.09	19.800	1.63	18.300	3.86
Aluly	-42.400	-2.22	40.700	2.60	1.300	0.47	0.400	0.35
August	-16.100	-1.32	17.300	1.85	-0.200	-0.08	-0.900	-2.03
September	-30.200	4.07	26.900	4.26	3.000	0.89	0.300	0.26
October	-13.000	-2.93	9.700	2.62	1.400	0.78	1.900	1.84
November	-70.500	-0.99	70.100	1.03	0.000	0.00	0.400	0:30
December	-347.600	-4.76	308.600	4.40	24.000	2.18	15.000	4.71
Pseudo-R <sup>2</sup>	0.225							
Observations	70,593							

Source: EU-SILC, own calculations. – Notes: XX, XE, XU, XI indicate education in period t and education, employment, unemployment and inactivity in period t+1, respectively. – Multinomial logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.2.15 Regression results: Transitions from education, Mediterranean

	×		吳		ΩX		₹	
	Marg. Effect	t-value						
Male	-1.500	-7.61	1.100	12.36	0.200	0.74	0.200	1.39
Female	Reference category	category	Reference category	sategory	Reference category	category	Reference category	sategory
Age 15-24	Reference category	category	Reference category	sategory	Reference category	category	Reference category	sategory
Age 25-54	-6.200	-8.40	2.200	2.39	2.000	9.17	2.000	25.00
Age 55-65	0.400	0.10	-5.000	-30.86	-2.900	-8.61	7.600	1.70
Single	Reference category	category	Reference category	sategory	Reference category	category	Reference category	sategory
Married living with partner	-3.700	-1.25	-0.100	-0.11	1.600	1.13	2.100	0.59
Not married living with partner	-3.200	-5.84	2.800	2.54	-0.300	-0.60	0.600	0.38
Low skilled (ISCED 0-2)	0.400	0.52	-1.500	-3.54	0.100	0.23	1.000	6.49
Medium skilled (ISCED 3-4)	Reference category	category	Reference category	sategory	Reference category	category	Reference category	sategory
High skilled (ISCED 5)	-9.500	-3.30	3.800	3.89	3.500	2.88	2.200	2.85
Number of children (<= 4) in household	2.500	1.39	-1.600	-2.40	-0.500	-0.21	-0.500	-2.01
Number of children (5-14 years) in household	0.800	0.58	-0.400	-0.54	0.200	0.46	-0.600	-1.22
Number of elderly (>=65) in household	-0.500	-1.01	-0.200	-0.68	0.500	1.74	0.200	1.63
Full-time employed partner in household	-10.000	-3.12	4.600	5.66	1.600	0.86	3.800	1.13
Part-time employed partner in household	-2.700	-0.29	-1.900	-0.94	2.000	0.73	2.600	0.58
Inactive/unemployed partner in household	Reference category	category	Reference category	sategory	Reference category	category	Reference category	sategory
COUNTRY								
Cyprus	Reference category	category	Reference category	sategory	Reference category	category	Reference category	sategory
Spain	-2.600	-15.29	5.300	50.48	-0.300	-2.50	-2.400	-14.12
Greece	0.200	1.90	0.300	3.00	0.500	4.72	-1.000	-14.29
Italy	0.100	0.38	-1.500	-16.30	2.000	6.51	-0.700	-16.28
Portugal	-0.800	-1.69	1.100	9.24	1.000	4.08	-1.200	-10.08

Table A.2.15, continued

	×		×		NX		ズ	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
2004	0.800	1.49	0.500	1.95	-1.000	-1.58	-0.400	-2.86
2005	Reference category	sategory	Reference category	sategory	Reference category	sategory	Reference category	ategory
2006	-0.400	-0.27	1.400	2.08	-0.900	-1.36	-0.100	-0.46
2007	0.400	0.36	1.800	9.63	-1.100	-1.23	-1.100	-7.38
January	Reference category	sategory	Reference category	sategory	Reference category	sategory	Reference category	ategory
February	-1.300	-1.10	1.800	1.60	-0.800	-2.37	0.300	1.14
March	-4.900	-2.89	3.500	1.85	0.800	2.33	0.600	1.05
April	-8.400	-1.74	7.700	1.60	0.700	1.91	0.000	00.00
May	-29.300	-4.43	23.700	3.22	1.300	1.60	4.300	2.41
June	-86.700	-5.15	25.500	2.74	13.500	2.58	17.800	2.16
July	-37.600	-8.91	16.300	2.95	11.500	3.72	9.900	1.83
August	-17.500	-2.69	18.800	2.96	-0.500	-0.74	-0.900	-1.89
September	-19.100	-3.55	15.400	5.70	3.600	1.42	0.100	0.08
October	-8.600	-6.75	2.600	3.66	2.900	2.60	0.100	0.07
November	-6.100	-2.06	5.900	1.47	0.000	0.00	0.200	0.20
December	-256.900	-5.98	148.200	2.07	71.000	3.23	37.600	6.55
Pseudo-R <sup>2</sup>	0.160							
Observations	287,528							

Source: EU-SILC, own calculations. – Notes: XX, XE, XU, XI indicate education in period t and education, employment, unemployment and inactivity in period t+1, respectively. – Multinomial logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.2.16 Regression results: Transitions from education, CEE

	×		낒		ΩX		ズ	
	Marg. Effect	t-value						
Male	-1.200	-3.23	0.900	2.74	0.200	2.63	0.100	1.96
Female	Reference category	category						
Age 15-24	Reference category	category						
Age 25-54	-1.700	-1.95	1.300	1.88	0.000	0.00	0.500	1.35
Age 55-65	2.000	3.24	-3.900	-22.29	-1.300	-6.70	0.200	0.12
Single	Reference category	category						
Married living with partner	-3.800	-1.51	0.900	1.54	1.000	3.60	1.900	0.83
Not married living with partner	-2.900	-4.76	2.800	6.44	-0.300	-1.26	0.400	0.71
Low skilled (ISCED 0-2)	7.200	13.46	-5.500	-8.99	-1.400	-7.87	-0.200	-6.90
Medium skilled (ISCED 3-4)	Reference category	category						
High skilled (ISCED 5)	-10.600	-8.16	7.500	7.05	2.200	11.96	0.900	4.31
Number of children (<= 4) in household	-1.600	-1.10	0.700	0.68	-0.100	-0.34	1.000	2.02
Number of children (5-14 years) in household	1.000	2.28	-0.500	-1.17	-0.400	-6.56	-0.100	-0.88
Number of elderly (>=65 ) in household	0.500	1.00	-0.700	-1.84	0.000	00.00	0.100	1.1
Full-time employed partner in household	-2.000	-3.33	1.200	2.81	0.600	1.52	0.200	0.42
Part-time employed partner in household	-3.000	-2.61	1.000	0.82	1.500	3.59	0.500	0.64
Inactive/unemployed partner in household	Reference category	category						
COUNTRY								
Czech Republic	Reference category	category						
Bulgaria	-2.700	-6.85	1.500	10.14	-0.300	-8.82	1.500	5.62
Estonia	-5.500	-18.58	3.500	21.74	-0.600	-6.12	2.600	10.74
Hungary	-0.200	-1.21	-0.800	-13.79	-0.700	-6.25	1.600	9.64
Lithuania	-2.200	-7.61	2.900	15.93	-0.900	-6.57	0.200	3.70
Latvia	-5.000	-13.55	4.800	17.33	-0.500	-5.43	0.800	6.78

Table A.2.16, continued

	×		씾		₹		ズ	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
Poland	-1.500	-12.40	1.100	16.67	-0.200	-6.06	0.600	7.59
Romania	4.200	21.11	-3.200	-20.92	-1.300	-6.40	0.300	3.66
Slovenia	0.900	7.32	-0.700	-7.87	-0.700	-5.93	0.500	7.35
Slovakia	1.500	21.43	-1.500	-24.19	0.000	00:00	0.000	0.00
2004	1.100	3.38	-0.800	-3.59	-0.300	-6.98	0.000	0.00
2005	Reference category	ategory	Reference category	ategory	Reference category	sategory	Reference category	ategory
2006	-1.100	-2.12	1.100	3.01	-0.200	-2.47	0.200	1.83
2007	-1.400	-2.85	1.400	4.59	-0.500	-4.85	0.500	2.89
January	Reference category	ategory	Reference category	ategory	Reference category	sategory	Reference category	ategory
February	-0.900	-0.75	0.400	0.49	0.800	0.87	-0.300	-0.84
March	-3.300	-2.20	1.600	1.28	1.400	2.18	0.200	0.33
April	-7.700	-3.68	4.900	2.93	2.300	3.80	0.500	99.0
May	-33.300	-5.54	16.800	5.44	13.200	3.39	3.300	1.57
June	-128.700	-7.07	43.800	5.78	63.600	7.48	21.300	1.94
yluly	-22.900	-6.10	13.800	5.98	6.500	2.34	2.600	2.75
August	-48.200	-3.20	25.700	5.30	20.300	1.38	2.100	1.32
September	-16.400	-5.34	10.000	3.33	5.400	2.90	1.000	1.86
October	-6.700	-3.56	3.100	2.56	3.200	3.32	0.500	0.64
November	-3.400	-1.98	2.700	1.82	0.200	0.34	0.500	0.62
December	-177.600	-9.75	78.400	96.9	57.500	5.30	41.800	2.50
Pseudo-R <sup>2</sup>	0.172							
Observations	583,044							

Source: EU-SILC, own calculations. – Notes: XX, XE, XU, XI indicate education in period t and education, employment, unemployment and inactivity in period t+1, respectively. – Multinomial logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.2.17 Regression results: Transitions from education, UK and Ireland

	×		¥	1	ΠX		X	
	Marg. Effect	t-value						
Male	-0.700	-0.84	0.000	0.00	1.300	7.88	-0.600	-8.00
Female	Reference category	sategory	Reference category	category	Reference category	sategory	Reference category	category
Age 15-24	Reference category	sategory	Reference category	category	Reference category	sategory	Reference category	category
Age 25-54	-13.100	-2.09	8.800	1.69	3.100	3.32	1.200	10.62
Age 55-65	-5.100	-0.32	-17.900	-9.38	-3.300	-3.78	26.400	1.40
Single	Reference category	sategory	Reference category	category	Reference category	sategory	Reference category	category
Married living with partner	2.000	0.75	-5.900	-2.40	-1.600	-8.33	2.600	280.00
Not married living with partner	-9.100	-1.29	3.300	0.67	0.900	0.89	4.900	4.21
Low skilled (ISCED 0-2)	11.300	5.12	-12.200	-8.09	0.000	0.00	0.800	22.86
Medium skilled (ISCED 3-4)	Reference category	sategory	Reference category	category	Reference category	sategory	Reference category	category
High skilled (ISCED 5)	-22.000	-5.36	16.700	5.62	3.500	4.41	1.800	5.41
Full-time employed partner in household	-8.400	-1.96	11.000	2.44	-1.700	-10.24	-0.900	-17.31
Part-time employed partner in household	-18.900	-2.26	16.100	2.21	3.600	3.28	-0.800	-44.44
Inactive/unemployed partner in household	Reference category	sategory	Reference category	category	Reference category	sategory	Reference category	category
COUNTRY								
Ireland	Reference category	sategory	Reference category	category	Reference category	sategory	Reference category	category
United Kingdom	8.900	2.38	-10.700	-3.36	-0.100	-0.14	1.900	13.57
2004	1.000	0.47	-2.800	-1.96	-1.200	-2.34	3.000	14.78
2005	Reference category	sategory	Reference category	category	Reference category	sategory	Reference category	category
2006	-2.200	-2.12	1.700	2.96	1.200	2.26	-0.700	-10.29
2007	-1.400	-0.62	-0.200	-0.14	1.300	2.12	0.300	1.76
January	Reference category	sategory	Reference category	category	Reference category	sategory	Reference category	category
February	-5.400	-0.41	-1.200	-0.94	8.700	0.73	-2.100	-25.61
March	-10.200	-0.88	5.000	1.44	6.200	0.76	-1.000	-27.78

Table A.2.17, continued

	×		¥		ΠX		ズ	
	Marg. Effect	t-value						
April	-24.400	-0.91	6.500	4.84	17.400	0.65	0.500	0.41
May	-64.600	-0.92	15.900	3.43	47.500	0.72	1.200	13.95
June	-94.700	-1.06	33.700	3.93	54.800	0.67	6.200	9.31
July	-85.100	-0.93	20.500	6.09	59.700	0.67	4.900	7.89
August	-44.000	-1.15	16.200	3.02	29.600	0.68	-1.700	-8.21
September	-34.400	-0.94	7.400	2.10	27.300	0.67	-0.300	-0.39
October	-23.400	-3.28	10.500	2.19	12.800	1.07	0.100	1.39
November	-10.600	-0.63	-2.800	-0.38	14.100	0.59	-0.700	-3.80
December	-516.300	-3.46	294.100	5.34	204.500	96.0	17.700	2.01
Pseudo-R²	0.191							
Observations	36,911							

Source: EU-SILC, own calculations. – Notes: XX, XE, XU, XI indicate education in period t and education, employment, unemployment and inactivity in period t+1, respectively. – Multinomial logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.2.18 Regression results: Transitions from unemployment

	3		Ŋ		SN		5	
	Marg. Effect	t-value						
Male	-8.258	-4.32	8.489	4.61	2.227	9.43	-2.369	-6.79
Female	Reference category	category						
Age 15-24	Reference category	category						
Age 25-54	4.031	1.10	-3.917	-1.31	0.818	2.85	-0.031	-0.05
Age 55-65	23.915	6.71	-30.883	-8.26	-0.678	-1.66	8.499	4.71
Single	Reference category	category						
Married living with partner	-3.617	-0.84	0.192	0.05	1.659	4.28	2.700	5.15
Not married living with partner	-14.770	-3.70	10.778	2.95	2.602	5.21	1.629	2.12
Low skilled (ISCED 0-2)	10.039	2.84	-9.037	-2.69	-0.981	-3.39	0.257	2.10
Medium skilled (ISCED 3-4)	Reference category	category						
High skilled (ISCED 5)	-10.059	-4.82	7.280	4.35	2.274	4.80	0.294	0.52
Number of children (<= 4) in household	-0.676	-0.45	-0.238	-0.20	-0.367	-1.79	1.189	1.98
Number of children (5-14 years) in household	-0.518	-0.44	0.932	0.87	0.004	0.02	-0.594	-2.37
Number of elderly (>=65 ) in household	5.163	2.81	-5.061	-2.64	-0.012	90.0-	-0.080	-0.24
Full-time employed partner in household	-3.935	-0.92	4.074	1.02	-0.162	-0.64	-0.071	-0.22
Part-time employed partner in household	-14.593	-2.38	13.404	2.11	0.424	1.90	0.886	1.07
Inactive/unemployed partner in household	Reference category	category						
COUNTRY								
Austria	Reference category	category						
Belgium	34.839	80.92	-30.155	-102.98	-1.852	-28.34	-2.438	-9.37
Bulgaria	28.464	45.03	-25.177	-71.02	0.893	29.9	-3.618	-8.65
Cyprus	-18.196	-10.71	12.210	9.46	7.897	15.23	-1.777	-7.62
Czech Republic	28.488	25.70	-25.640	-36.45	-0.254	-1.77	-2.194	-4.44
Germany	25.304	15.25	-28.940	-22.10	2.541	6.92	1.110	1.41

Table A.2.18, continued

	m		当		SN		5	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
Denmark	23.155	16.04	-21.983	-32.43	-2.166	-28.83	-0.324	-0.53
Estonia	19.287	62.88	-17.878	-57.34	-0.315	-10.38	-1.143	-5.08
Spain	10.583	15.78	-8.766	-17.35	-0.052	-0.59	-1.797	-7.03
Finland	0.870	1.05	-3.634	-8.11	-1.095	-17.50	-0.140	-0.89
France	27.054	21.09	-21.890	-29.33	-1.261	-12.93	-3.821	-6.15
Greece	13.359	9.88	-13.558	-14.18	3.760	9.94	-3.202	-6.50
Hungary	13.282	38.89	-12.274	-38.83	-1.083	-25.42	0.080	0.57
Ireland	13.337	18.02	-13.590	-23.00	2.084	9:30	-2.638	-5.58
Italy	23.806	37.31	-28.218	-52.45	2.225	14.72	1.615	4.17
Lithuania	22.180	27.29	-19.809	-35.78	0.364	3.42	-2.525	-8.07
Luxembourg	14.509	44.14	-10.006	-24.94	-2.062	-34.09	-2.074	-10.14
Latvia	20.133	24.93	-17.583	-28.93	-0.147	-1.78	-1.935	76.7-
Netherlands	12.337	11.62	-19.773	-37.86	-1.097	-12.62	8.869	10.14
Norway	-2.400	-3.01	-2.206	-3.41	0.864	4.99	0.505	1.84
Poland	29.738	29.47	-27.644	-35.47	0.199	1.47	-2.012	-7.87
Portugal	21.811	23.72	-21.570	-30.01	2.114	8.46	-2.408	-10.83
Romania	29.762	14.97	-34.753	-67.77	7.578	7.12	-1.979	-3.01
Sweden	-26.099	-13.05	10.308	9.66	-0.267	-1.34	1.971	3.58
Slovenia	-13.245	-12.14	-12.998	-12.56	-0.103	-0.92	22.189	17.74
Slovakia	26.544	30.69	-22.409	-33.88	-1.169	-14.28	-2.591	-9.00
United Kingdom	-9.545	-5.57	-0.750	-0.55	5.036	13.07	3.696	5.34
2004	4.736	1.48	-2.490	-1.01	-0.351	-0.79	-1.500	-1.45
2005	Reference category	category	Reference category	ategory	Reference category	sategory	Reference category	ategory

Table A.2.18, continued

	n		当		SN		5	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
2006	-7.326	-1.46	7.071	2.84	-0.165	-0.29	0.610	0.29
2007	-7.219	-1.15	9.404	2.28	-0.333	-0.56	-1.575	-0.74
January	Reference category	category	Reference category	ategory	Reference category	category		
February	-21.531	-3.53	17.619	3.08	3.152	2.80	0.719	1.12
March	-42.343	-4.36	37.914	4.22	3.796	2.02	0.510	1.39
April	-36.730	-3.76	32.688	3.89	2.757	1.84	0.770	1.29
May	-33.280	-4.33	29.629	4.40	2.220	1.96	1.135	1.29
June	-32.918	-4.04	26.082	3.62	3.912	2.66	2.511	2.85
July	-16.030	-2.07	11.695	1.59	1.896	3.02	1.403	2.29
August	-56.557	-7.49	46.709	5.70	4.122	2.93	2.168	4.20
September	-39.836	-5.15	32.742	4.44	2.368	2.97	2.541	4.45
October	-20.581	-3.00	16.152	2.67	2.058	1.71	1.529	1.43
November	-9.367	-1.86	6.833	1.59	0.921	1.45	1.322	1.31
December	-373.04	-7.00	186.953	5.04	38.342	4.44	137.029	6.52
Pseudo-R <sup>2</sup>	0.1210							
Observations	746,884							
ADDITIONAL EXPLANATORIES								
Densely populated area	7.528	3.30	-6.576	-2.62	-0.417	-0.87	-0.495	-1.17
Intermediate populated area	Reference category	ategory	Reference category	ategory	Reference category	sategory	Reference category	ategory
Thinly populated area	-5.661	-3.61	5.917	3.68	0.187	0.44	-0.336	-1.11
Pseudo-R²	0.1161							
Observations	445,006							

Table A.2.18, continued

	UU		3n		SN		5	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect t-value Marg. Effect t-value Marg. Effect t-value Marg. Effect t-value	t-value	Marg. Effect	t-value
	Reference category	ategory	Reference category	ategory	Reference category	ategory	Reference category	ategory
Years of employment	-0.1221	-0.71	0.0547	0.35	0.0246	1.75	0.0551	3.10
Pseudo-R²	0.1079							
Observations	359,876							

Source: EU-SILC, own calculations. – Notes: UU, UE, US, UI indicate unemployment in period t and unemployment, employment, self-employment and inactivity in period t+1, respectively. Results for transitions into education are not presented due to small sample sizes. Multinomial logit model;- t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. See Section 2.1 for explanation of the additional explanatories.

Table A.2.19 Regression results: Transitions from unemployment, Continental Europe

	3	_	E E		SN	S	ō	_
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
Male	-5.059	-5.64	5.201	9.40	5.201	5.15	-1.363	-1.58
Female	Referenc	Reference category	Referenc	Reference category	Referenc	Reference category	Reference category	category
Age 15-24	Referenc	Reference category	Referenc	Reference category	Referenc	Reference category	Reference category	category
Age 25-54	12.286	4.10	-10.343	-7.70	-10.343	1.19	-2.070	-1.26
Age 55-65	32.350	11.19	-37.481	-16.66	-37.481	-5.14	6.929	1.76
Single	Referenc	Reference category	Referenc	Reference category	Referenc	Reference category	Reference category	category
Married living with partner	-1.966	-0.58	-2.223	-0.60	-2.223	1.78	3.560	9.56
Not married living with partner	-12.214	-2.31	8.320	1.39	8.320	9.46	1.940	06.0
Low skilled (ISCED 0-2)	15.067	12.26	-13.698	-12.55	-13.698	-21.17	0.148	0.59
Medium skilled (ISCED 3-4)	Referenc	Reference category	Referenc	Reference category	Referenc	Reference category	Reference category	category
High skilled (ISCED 5)	-7.482	-3.43	5.276	2.63	5.276	13.28	0.728	0.88
Number of children (<= 4) in household	-3.986	-2.89	1.002	0.65	1.002	-1.20	3.115	3.41
Number of children (5-14 years) in household	1.115	0.63	-0.104	-0.07	-0.104	1.85	-1.297	-3.54
Number of elderly (>=65 ) in household	-0.080	-0.01	1.925	0.38	1.925	1.09	-2.121	-2.79
Full-time employed partner in household	-8.244	-1.89	9.041	2.27	9.041	1.10	-1.036	-1.17
Part-time employed partner in household	-13.095	-1.13	12.018	1.03	12.018	1.54	0.688	0.72
Inactive/unemployed partner in household	Referenc	Reference category	Referenc	Reference category	Referenc	Reference category	Reference category	category
COUNTRY								
Austria	Referenc	Reference category	Referenc	Reference category	Referenc	Reference category	Reference category	category
Belgium	29.427	44.06	-25.934	-48.58	-25.934	-21.28	-2.367	-9.11
Germany	26.108	4.79	-30.437	-6.27	-30.437	2.52	2.855	2.07
France	24.469	8.10	-19.429	-8.21	-19.429	-3.75	-4.273	-3.05
Luxembourg	10.697	20.42	-7.740	-10.76	-7.740	-24.12	-1.779	-6.88
Netherlands	6.784	3.58	-16.337	-10.02	-16.337	-6.22	10.104	13.91

Table A.2.19, continued

	n		∃n		SN		]   	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect t-value	t-value
2004	0.112	0.02	0.141	0.04	0.141	0.84	-0.375	-0.26
2005	Reference category	sategory	Reference category	category	Reference category	sategory	Reference category	category
2006	-18.354	-4.32	9.370	2.08	9.370	2.27	7.374	79.7
2007	-30.803	-2.79	25.384	2.27	25.384	0.53	4.662	1.85
January	Reference category	sategory	Reference category	category	Reference category	sategory	Reference category	category
February	-7.999	-1.36	7.139	1.07	7.139	3.61	-0.259	-0.23
March	-21.997	-1.98	21.494	1.85	21.494	1.16	-0.468	-1.82
April	-10.412	-1.73	11.358	1.92	11.358	-0.77	-0.716	-1.36
May	-9.826	-2.94	10.501	4.01	10.501	-1.05	-0.228	-0.13
June	-11.761	-4.58	7.440	3.81	7.440	8.50	1.245	1.08
ylnt	-1.905	-0.17	0.140	0.01	0.140	4.29	0.331	0.39
August	-27.883	-5.38	23.523	3.73	23.523	2.15	1.536	1.81
September	-12.959	-3.69	10.810	3.78	10.810	3.55	0.969	1.36
October	-0.379	-0.10	-0.018	-0.01	-0.018	2.00	-0.966	-0.98
November	-3.155	-0.65	2.059	0.56	2.059	0.88	0.936	0.44
December	-156.418	-2.86	64.657	1.75	64.657	5.39	72.274	4.30
Pseudo-R <sup>2</sup>	0.085							
Observations	137,407							

Source: EU-SILC, own calculations. – Notes: UU, UE, US, UI indicate unemployment in period t and unemployment, employment, self-employment and inactivity in period t+1, respectively. Results for transitions into education are not presented due to small sample sizes. Multinomial logit model;- t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.2.20 Regression results: Transitions from unemployment, Scandinavia

	an I		Ħ		SN		<b>万</b>	
	Marg. Effect	t-value						
Male	18.264	3.18	-11.359	-2.07	0.514	0.98	-5.237	-4.18
Female	Reference category	sategory						
Age 15-24	Reference category	sategory						
Age 25-54	28.286	4.76	-19.267	-3.15	0.553	2.94	-2.419	-1.13
Age 55-65	56.181	20.28	-52.794	-15.33	-0.338	-0.50	6.215	3.39
Single	Reference category	sategory						
Married living with partner	-2.618	-0.36	3.483	0.42	1.177	2.08	0.892	0.62
Not married living with partner	-21.832	-3.22	19.993	2.81	0.672	1.43	2.901	3.53
Low skilled (ISCED 0-2)	21.736	14.77	-22.514	-37.39	-0.564	-3.06	1.496	1.12
Medium skilled (ISCED 3-4)	Reference category	sategory						
High skilled (ISCED 5)	-5.612	-0.92	4.199	1.37	0.080	0.12	-0.495	-0.21
Number of children (<= 4) in household	3.385	0.71	-6.171	-1.60	-0.123	-0.71	1.658	0.82
Number of children (5-14 years) in household	-4.225	-2.07	2.728	1.22	-0.079	-0.32	-0.623	-0.62
Number of elderly (>=65 ) in household	-1.154	-0.14	0.876	0.11	0.516	0.93	0.240	0.11
Full-time employed partner in household	38.194	90.9	-32.142	-5.38	0.343	0.98	-3.269	-4.51
Part-time employed partner in household	-65.019	-2.54	82.125	3.31	-1.144	-9.75	-9.499	-8.51
Inactive/unemployed partner in household	Reference category	sategory						
COUNTRY								
Denmark	Reference category	sategory						
Finland	-53.511	-25.13	46.268	23.36	1.361	9.90	0.175	0.95
Norway	-76.310	-19.94	66.101	19.15	5.314	8.50	0.737	2.44
Sweden	-110.125	-24.77	81.097	23.25	3.539	10.88	1.198	2.80
2004	12.040	2.41	-8.542	-2.45	-0.633	-1.07	-2.300	-3.85
2005	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	sategory

Table A.2.20, continued

	nn		픠		Sn		5	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
2006	4.551	0.59	-2.564	-0.38	-0.165	-0.31	1.096	1.83
2007	-16.276	-1.24	22.250	2.24	-0.818	-2.25	-3.570	-1.81
January	Reference category	sategory	Reference category	sategory	Reference category	sategory	Reference category	ategory
February	-11.548	-1.65	11.341	2.35	-0.250	-0.28	1.008	1.90
March	-42.471	-12.41	34.204	3.57	-1.054	-2.08	2.544	1.66
April	-54.520	-12.14	42.510	4.78	-0.686	-2.46	5.721	0.94
May	-60.376	-5.66	58.476	6.41	-0.700	-6.30	5.197	3.27
June	-20.293	-0.84	9.645	0.97	-0.784	-6.73	9.947	1.60
July	-94.336	-10.50	56.392	5.96	-1.079	-3.57	4.334	1.02
August	-99.075	-3.43	45.992	4.75	0.138	0.10	5.580	0.82
September	-46.469	-1.18	29.182	1.23	-0.002	0.00	3.382	0.54
October	-44.649	-0.98	29.602	0.99	-0.458	-0.74	4.300	1.17
November	-27.648	-2.20	17.945	1.93	-0.691	-6.00	3.357	3.42
December	-448.083	-2.39	274.703	2.30	4.038	1.09	132.796	2.64
Pseudo-R <sup>2</sup>	0.113							
Observations	30,225							

Source: EU-SILC, own calculations. – Notes: UU, UE, US, UI indicate unemployment in period t and unemployment, employment , self-employment and inactivity in period t+1, respectively. Results for transitions into education are not presented due to small sample sizes. Multinomial logit model;- t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.2.21 Regression results: Transitions from unemployment, Mediterranean

	ON.	_	∃n		sn		D	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
Wale	-8.453	-5.71	9.075	7.94	2.159	7.39	-2.699	-12.45
Female	Reference category	category	Reference category	sategory	Reference category	sategory	Reference category	ategory
Age 15-24	Reference category	category	Reference category	sategory	Reference category	sategory	Reference category	ategory
Age 25-54	-5.674	-1.73	4.548	1.45	1.250	5.28	0.605	4.83
Age 55-65	20.100	2.58	-27.596	-5.07	-0.084	-0.07	8.149	5.55
Single	Reference category	category	Reference category	sategory	Reference category	sategory	Reference category	ategory
Married living with partner	-11.201	-1.03	6.952	0.71	1.904	4.18	3.455	6.40
Not married living with partner	-21.108	-1.43	16.954	1.38	3.110	2.21	1.346	1.34
Low skilled (ISCED 0-2)	-1.861	-1.28	2.819	2.79	-0.818	-1.71	0.169	1.26
Medium skilled (ISCED 3-4)	Reference category	category	Reference category	sategory	Reference category	sategory	Reference category	ategory
High skilled (ISCED 5)	-13.535	-3.83	9.824	7.90	3.394	2.52	0.157	0.12
Number of children (<= 4) in household	0.595	0.42	-0.225	-0.15	-0.264	-1.40	0.028	0.53
Number of children (5-14 years) in household	-1.380	-0.51	1.568	0.71	-0.005	-0.02	-0.340	-1.06
Number of elderly (>=65 ) in household	9.282	6.70	-9.614	-9.47	-0.058	-0.22	0.366	1.77
Full-time employed partner in household	8.899	1.72	-8.129	-1.60	-0.891	-9.27	-0.181	-0.65
Part-time employed partner in household	-7.906	-4.77	999'9	2.20	0.757	1.89	0.200	0.13
Inactive/unemployed partner in household	Reference category	category	Reference category	sategory	Reference category	sategory	Reference category	ategory
COUNTRY								
Cyprus	Reference category	category	Reference category	sategory	Reference category	sategory	Reference category	ategory
Spain	28.587	55.37	-24.420	-40.42	-4.184	-21.00	-0.098	-0.54
Greece	27.059	94.35	-22.984	-36.60	-1.406	-15.71	-2.422	-4.05
Italy	54.351	19.44	-55.411	-23.73	-2.388	-11.77	3.064	5.61
Portugal	35.320	91.99	-32.384	-65.96	-1.951	-16.04	-1.116	-9.00

Table A.2.21, continued

	nn		핅		SN		5	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
2004	6:639	1.39	-2.765	-1.34	-0.801	69.0-	-2.644	-1.53
2005	Reference category	sategory	Reference category	ategory	Reference category	sategory	Reference category	sategory
2006	2.813	0.44	1.668	0.40	-1.219	-1.47	-2.972	-2.07
2007	3.538	0.47	2.529	0.73	-0.716	-0.46	-4.877	-1.88
January	Reference category	sategory	Reference category	ategory	Reference category	sategory	Reference category	sategory
February	-26.802	-3.69	18.822	2.72	6.751	1.86	1.152	1.87
March	-41.115	-5.02	34.806	4.89	5.991	1.64	0.341	1.97
April	-44.560	-4.69	38.218	5.16	4.931	1.81	1.205	5.10
May	-45.972	-6.26	39.367	6.38	4.839	2.50	1.649	5.09
June	-41.587	-5.62	35.199	7.04	5.186	1.98	1.030	1.62
July	-10.689	-2.11	7.591	1.81	2:032	1.27	1.057	2.13
August	-77.284	-10.76	66.401	7.60	8.562	2.07	1.431	3.46
September	-60.223	-8.69	51.514	7.53	5.434	2.26	2.852	7.90
October	-36.940	-5.77	27.375	6.56	5.098	1.72	4.001	5.81
November	-17.398	-1.43	11.952	1.12	3.163	1.70	2.049	12.86
December	-473.241	-12.94	245.135	6.15	70.249	2.87	150.241	3.45
Pseudo-R <sup>2</sup>	0.150							
Observations	232,501							

Source: EU-SILC, own calculations. – Notes: UU, UE, US, UI indicate unemployment in period t and unemployment, employment, self-employment and inactivity in period t+1, respectively. Results for transitions into education are not presented due to small sample sizes. Multinomial logit model;- t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.2.22 Regression results: Transitions from unemployment, CEE

	3		UE		SN		5	
	Marg. Effect	t-value						
Wale	-14.472	-5.28	13.921	5.89	2.259	14.82	-1.690	-4.81
Female	Reference category	sategory	Reference category	sategory	Reference category	sategory	Reference category	category
Age 15-24	Reference category	sategory	Reference category	sategory	Reference category	sategory	Reference category	category
Age 25-54	2.498	1.70	-3.818	-3.77	1.538	3.29	-0.136	-0.26
Age 55-65	12.745	4.38	-18.876	-12.91	0.082	0.36	6.168	2.16
Single	Reference category	sategory	Reference category	sategory	Reference category	sategory	Reference category	category
Married living with partner	3.101	4.60	-4.496	-7.30	0.912	7.42	0.608	2.29
Not married living with partner	-3.075	-1.72	1.916	1.13	0.865	4.40	0.329	1.00
Low skilled (ISCED 0-2)	13.318	13.46	-13.027	-16.71	-0.206	-0.70	-0.065	-0.26
Medium skilled (ISCED 3-4)	Reference category	sategory	Reference category	sategory	Reference category	sategory	Reference category	category
High skilled (ISCED 5)	-17.323	-6.26	17.584	6.62	0.544	0.94	-0.830	-3.87
Number of children (<= 4) in household	-0.476	-0.46	0.163	0.13	-0.185	-0.84	0.519	1.35
Number of children (5-14 years) in household	-1.489	-1.84	2.149	3.22	-0.249	-1.23	-0.423	-2.02
Number of elderly (>=65) in household	5.883	2.46	-5.091	-2.22	-0.526	-2.22	-0.264	-1.80
Full-time employed partner in household	-0.064	-0.01	0.799	0.21	-0.509	-1.80	-0.294	-1.47
Part-time employed partner in household	-12.189	-4.09	10.332	4.17	-0.149	-0.24	1.909	1.75
Inactive/unemployed partner in household	Reference category	sategory	Reference category	sategory	Reference category	sategory	Reference category	category
COUNTRY								
Czech Republic	Reference category	sategory	Reference category	sategory	Reference category	sategory	Reference category	category
Bulgaria	2:022	1.81	-0.647	-0.48	0.630	2.26	-1.977	-10.55
Estonia	-10.789	-7.16	10.514	8.78	-0.213	-3.77	0.428	1.06
Hungary	-23.757	-8.78	23.435	12.24	-0.970	-13.07	1.248	1.57
Lithuania	-8.007	-9.24	8.253	8.68	0.493	3.97	-0.761	-6.00
Latvia	-12.910	-11.76	13.295	13.03	-0.022	-0.42	-0.347	-2.15

Table A.2.22, continued

	n		当		Sn		5	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
Poland	-0.159	-0.29	0.078	0.20	0.367	2.80	-0.295	-1.17
Romania	19.200	19.86	-23.674	-21.29	5.787	3.57	-1.272	-7.36
Slovenia	-49.123	-7.73	24.096	23.26	0.001	0.01	24.155	4.57
Slovakia	-1.751	-2.74	3.624	5.73	-0.956	-10.75	-0.910	-12.63
2004	9.068	4.72	-8.410	-4.73	-0.300	-1.10	-0.345	-1.45
2005	Reference category	ategory	Reference category	sategory	Reference category	sategory	Reference category	ategory
2006	-12.050	-5.51	8.635	5.03	0.368	0.78	3.019	5.65
2007	-18.766	-3.69	17.004	3.52	0.272	1.01	1.463	2.21
January	Reference category	ategory	Reference category	sategory	Reference category	sategory	Reference category	ategory
February	-51.141	-9.97	41.241	12.18	7.946	2.13	1.924	2.31
March	-95.644	-18.30	75.832	18.66	17.592	2.75	2.251	2.31
April	-88.474	-21.55	71.276	25.76	13.968	4.77	3.196	2.02
May	-69.734	-9.37	56.732	8.04	9.585	3.99	3.432	2.75
June	-75.996	-6.09	58.925	5.44	10:301	5.16	6.619	3.79
July	-43.331	-9.25	34.704	69.6	5.054	3.41	3.534	2.13
August	-76.397	-17.93	65.481	16.47	6.036	2.30	3.994	3.44
September	-61.738	-10.56	51.461	10.45	4.853	5.58	4.582	4.22
October	-37.621	-8.49	29.551	8.42	5.204	3.04	2.798	2.88
November	-10.888	-2.85	7.978	2.51	2.144	2.92	0.753	0.95
December	-491.045	-14.63	248.684	8.66	67.714	3.38	171.542	3.51
Pseudo-R²	0.145							
Observations	328,298							

Source: EU-SILC, own calculations. – Notes: UU, UE, US, UI indicate unemployment in period t and unemployment, employment, self-employment and inactivity in period t+1, respectively. Results for transitions into education are not presented due to small sample sizes. Multinomial logit model;- t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively

Table A.2.23 Regression results: Transitions from unemployment, UK and Ireland

	B		픠		SN		ō	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
Wale	22.012	5.53	-23.536	-6.23	4.099	4.63	-1.936	-3.82
Female	Reference category	ategory	Reference category	sategory	Reference category	category	Reference category	category
Age 15-24	Reference category	ategory	Reference category	sategory	Reference category	category	Reference category	category
Age 25-54	23.335	4.96	-21.130	-4.81	0.943	0.71	0.056	0.12
Age 55-65	20.073	2.87	-22.867	-3.66	1.883	0.82	3.515	2.33
Single	Reference category	ategory	Reference category	sategory	Reference category	category	Reference category	category
Married living with partner	-13.556	-2.78	6.898	1.54	8.360	4.83	0.777	1.72
Not married living with partner	-10.056	-1.82	4.538	0.91	6.491	2.97	0.163	0.32
Low skilled (ISCED 0-2)	48.661	11.56	-41.949	-10.55	-3.715	-3.49	-0.042	-0.11
Medium skilled (ISCED 3-4)	Reference category	ategory	Reference category	sategory	Reference category	category	Reference category	category
High skilled (ISCED 5)	-16.081	-3.27	11.582	2.52	3.171	2.27	0.603	1.17
Number of children (<= 4) in household	18.093	3.46	-14.331	-2.91	-3.879	-2.70	0.246	0.63
Number of children (5-14 years) in household	-1.520	-0.54	0.539	0.20	-0.036	-0.05	0.169	0.71
Number of elderly (>=65 ) in household	10.971	1.23	-7.206	-0.87	-3.077	-1.09	990.0-	-0.10
Full-time employed partner in household	-77.507	-6.53	67.874	6.03	5.914	2.18	0.058	0.09
Part-time employed partner in household	-30.955	-2.01	27.528	1.89	2.590	0.93	-0.686	-0.99
Inactive/unemployed partner in household	Reference category	ategory	Reference category	sategory	Reference category	category	Reference category	category
COUNTRY								
Ireland	Reference category	ategory	Reference category	sategory	Reference category	category	Reference category	category
United Kingdom	-27.349	-6.38	19.521	4.86	4.123	3.40	2.395	3.71
2004	-5.145	-0.72	1.025	0.15	3.506	1.67	0.846	0.97
2005	Reference category	ategory	Reference category	sategory	Reference category	category	Reference category	category
2006	-2.088	-0.46	5.519	1.26	-2.808	-2.84	-0.225	-0.58
2002	-2.662	-0.52	4.020	0.82	-1.754	-1.66	0.014	0.03

Table A.2.23, continued

	n		当		SN		5	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
January	Reference category	ategory	Reference category	sategory	Reference category	sategory	Reference category	category
February	-21.047	-1.89	21.184	1.95	0.306	0.14	0.514	0.31
March	-47.819	-3.67	51.007	3.97	-1.743	-0.99	1.071	0.56
April	-34.245	-2.79	37.640	3.10	-1.514	-0.83	-1.014	-0.94
May	-15.479	-1.41	14.635	1.37	3.055	1.12	-1.685	-2.07
June	-32.701	-2.70	32.341	2.74	-2.324	-1.40	2.152	0.91
July	-32.389	-2.69	32.168	2.74	-0.399	-0.20	1.522	0.73
August	-57.406	-4.34	48.635	3.81	1.987	08.0	2.874	1.09
September	-54.768	-4.11	50.062	3.85	1.102	0.47	2.113	06.0
October	-47.031	-3.57	47.669	3.67	-1.416	-0.77	-0.398	-0.30
November	-29.479	-2.42	30.583	2.56	0.557	0.25	-0.978	-0.90
December	-541.999	-12.47	315.632	6.74	20.673	2.50	197.829	2.57
Pseudo-R²	0.129							
Observations	21,786							

Source: EU-SILC, own calculations. – Notes: UU, UE, US, UI indicate unemployment in period t and unemployment, employment, self-employment and inactivity in period t+1, respectively. Results for transitions into education are not presented due to small sample sizes. Multinomial logit model;- t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.2.24 Regression results: Transitions from inactivity

	=		Ш		Ω		⊇	
	Marg. Effect	t-value						
Wale	-2.055	-2.75	1.067	1.71	0.558	4.76	0.400	3.07
Female	Reference category	category	Reference category	category	Reference category	sategory	Reference category	category
Age 15-24	Reference category	category	Reference category	category	Reference category	sategory	Reference category	category
Age 25-54	0.428	0.57	-0.400	-0.64	0.138	1.91	-0.106	-0.82
Age 55-65	8.140	16.41	-6.008	-16.58	-0.483	-7.98	-1.459	-6.27
Single	Reference category	category	Reference category	category	Reference category	sategory	Reference category	category
Married living with partner	3.194	4.24	-1.745	-3.74	-0.060	-0.46	-1.203	-2.90
Not married living with partner	-1.428	-1.94	1.109	1.74	0.489	2.42	-0.147	-0.85
Low skilled (ISCED 0-2)	2.662	4.49	-2.220	-4.17	-0.269	-2.26	-0.214	-3.52
Medium skilled (ISCED 3-4)	Reference category	category	Reference category	category	Reference category	sategory	Reference category	category
High skilled (ISCED 5)	-2.311	-3.49	1.682	3.00	989.0	5.15	-0.038	-0.22
Number of children (<= 4) in household	-1.151	-3.10	0.730	2.43	0.064	1.07	0.348	4.85
Number of children (5-14 years) in household	-0.641	-3.06	0.354	1.99	0.101	3.19	0.162	4.52
Number of elderly (>=65) in household	1.271	2.14	-1.046	-2.30	0.022	0.24	-0.236	-0.99
Full-time employed partner in household	-0.893	-1.01	0.636	06.0	0.082	0.73	0.169	1.31
Part-time employed partner in household	-1.726	-1.48	0.609	0.67	0.864	2.57	0.249	1.1
Inactive/unemployed partner in household	Reference category	category	Reference category	category	Reference category	sategory	Reference category	category
COUNTRY								
Austria	Reference category	category	Reference category	category	Reference category	sategory	Reference category	category
Belgium	-1.540	-6.26	0.136	0.94	-0.354	-8.72	1.698	6.86
Bulgaria	-2.213	-8.49	0.752	4.34	0.385	4.65	1.096	5.27
Cyprus	0.061	0.48	-0.594	-8.30	0.462	6.75	0.042	0.95
Czech Republic	1.885	5.77	-1.949	-9.73	-0.387	-9.79	0.483	2.26
Germany	1.286	2.54	-0.790	-1.82	-0.231	-2.65	-0.328	-4.06

Table A.2.24, continued

	=		Ш		<u>S</u>		□	
	Marg. Effect	t-value						
Denmark	-1.717	-2.40	1.572	2.64	-0.454	-12.07	0.537	3.92
Estonia	-0.258	-1.21	0.620	2.96	-0.380	-12.92	0.024	0.55
Spain	-1.589	-5.33	-0.500	-8.14	0.098	2.44	1.981	6.57
Finland	-7.396	-5.65	4.158	4.35	1.000	3.17	2.057	9.80
France	2.070	9.22	-0.973	-4.13	-0.655	-7.84	-0.420	-8.13
Greece	0.104	0.31	-2.177	-11.44	1.614	8.03	0.458	2.65
Hungary	1.061	21.95	-0.775	-14.39	-0.377	-9.25	0.117	2.79
Ireland	-0.336	-1.06	0.504	1.72	-0.217	-4.98	0.056	0.99
Italy	-3.297	-9.28	0.055	0.44	1.171	9.72	2.047	7.16
Lithuania	0.240	1.86	-0.033	-0.34	0.041	1.21	-0.227	-4.75
Luxembourg	2.149	12.45	-1.421	-11.18	-0.495	-6.44	-0.259	-5.64
Latvia	-1.981	-6.46	1.091	4.65	-0.072	-4.27	0.991	6.95
Netherlands	-17.552	-10.67	10.449	8.17	0.303	3.44	6.822	2.06
Norway	-5.302	-4.04	4.537	3.89	0.125	1.17	0.475	5.27
Poland	0.407	2.26	-1.796	-19.85	1.015	5.78	0.402	5.18
Portugal	-1.865	-5.73	0.145	0.70	1.213	8.39	0.533	7.00
Romania	3.048	6.71	-3.311	-12.47	1.028	7.12	-0.729	-4.61
Sweden	-10.968	-7.04	8.879	6.16	-0.011	-0.12	1.638	10.17
Slovenia	-0.374	-1.08	-1.648	-20.24	-0.427	-8.37	2.454	09.9
Slovakia	1.995	11.00	-1.639	-12.63	-0.471	-7.49	0.151	2.87
United Kingdom	-2.267	-5.01	1.988	5.25	0.408	3.51	-0.108	-1.27

Table A.2.24, continued

	=		Ш		<u>S</u>		⊇	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
2004	0.618	1.12	-0.248	-0.57	-0.231	-2.20	-0.138	-0.61
2005	Reference category	ategory	Reference category	sategory	Reference category	ategory		
2006	-1.165	96.0-	1.531	1.67	-0.192	-1.51	-0.178	-0.78
2007	-1.925	-1.10	2.230	1.77	-0.132	-0.79	-0.227	-0.49
January	Reference category	ategory	Reference category	sategory	Reference category	ategory		
February	-1.740	-3.00	1.605	3.64	0.348	1.24	-0.204	-0.63
March	-2.742	-3.46	2.242	6.51	0.740	2.43	-0.246	-0.55
April	-2.589	-3.32	2.285	4.90	0.593	3.06	-0.271	-0.67
May	-2.349	-3.05	2.441	2.60	0.142	1.01	-0.222	-0.56
June	-2.786	-2.36	2.547	3.87	0.156	1.65	0.091	0.15
July	-1.824	-1.05	1.962	1.48	-0.279	-2.01	0.055	0.10
August	-6.396	-3.10	5.735	3.50	0.376	1.48	-0.063	-0.12
September	-2.993	-1.81	2.966	2.47	0.069	0.30	-0.173	-0.37
October	-1.427	-1.20	1.637	1.96	-0.041	-0.20	-0.163	-0.40
November	0.079	0.09	0.534	96.0	-0.238	-1.51	-0.357	-0.94
December	-78.246	-4.59	46.920	4.38	11.857	5.65	16.608	2.35
Pseudo-R²	0.217	_						
Observations	2616349	49						

Table A.2.24, continued

	=		Ш		8		⊇	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
ADDITIONAL EXPLANATORIES								
Densely populated area	0.7371	7.58	-0.4674	-2.10	-0.2455	-1.33	-0.0240	-0.82
Intermediate populated area	Reference category	ategory	Reference category	sategory	Reference category	ategory	Reference category	ategory
Thinly populated area	-0.1418	-0.60	-0.0801	-0.48	0.2161	3.58	0.0107	0.21
Pseudo-R <sup>2</sup>	0.2022							
Observations	1,562,964							
	Reference category	ategory	Reference category	sategory	Reference category	ategory	Reference category	ategory
Years of employment	0.0221	1.34	-0.0142	-0.98	0.0055	1.51	-0.0124	-7.09
Pseudo-R²	0.1988							
Observations	1,302,534							

Source: EU-SILC, own calculations. – Notes: II, IE, IS, IU indicate inactivity in period t and inactivity, employment, self-employment and unemployment in period t+1, respectively. Results for transitions into education are not presented due to small smaple sizes. Multinomial logit model;- t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. See Section 2.1 for explanation of the additional explanatories.

Table A.2.25 Regression results: Transitions from inactivity, Continental Europe

	=		Ш		<u>S</u>		⊇	
	Marg. Effect	t-value						
Male	-1.125	-0.85	0.762	0.64	900:0	0:30	0.345	2.40
Female	Reference category	category	Reference category	sategory	Reference category	category	Reference category	category
Age 15-24	Reference category	category	Reference category	sategory	Reference category	category	Reference category	category
Age 25-54	0.571	09.0	-0.475	-0.72	0.077	2.12	-0.151	-0.46
Age 55-65	8.778	6.21	-7.382	-7.33	-0.248	-2.91	-1.096	-2.67
Single	Reference category	category	Reference category	sategory	Reference category	category	Reference category	category
Married living with partner	3.755	3.59	-2.237	4.71	0.119	2.20	-1.607	-2.83
Not married living with partner	-0.994		0.878	0.98	0.355	1.53	-0.234	-0.56
Low skilled (ISCED 0-2)	1.515	1.95	-1.412	-1.81	-0.107	-2.54	-0.030	-0.40
Medium skilled (ISCED 3-4)	Reference category	category	Reference category	sategory	Reference category	category	Reference category	category
High skilled (ISCED 5)	-0.753	-0.81	0.829	1.02	0.213	2.15	-0.278	-1.35
Number of children (<= 4) in household	-1.128	-5.33	999.0	4.05	-0.022	-0.66	0.489	7.47
Number of children (5-14 years) in household	-0.496	-1.69	0.418	2.39	0.029	1.52	0.041	0.36
Number of elderly (>=65 ) in household	4.029	3.70	-2.797	-3.54	-0.045	-0.94	-1.177	-4.07
Full-time employed partner in household	-0.449	-0.48	0.428	1.01	0.038	1.06	-0.025	-0.05
Part-time employed partner in household	0.443	0.35	-0.872	-0.95	0.142	1.38	0.277	0.44
Inactive/unemployed partner in household	Reference category	category	Reference category	sategory	Reference category	category	Reference category	category
COUNTRY								
Austria	Reference category	category	Reference category	sategory	Reference category	category	Reference category	category
Belgium	-1.615	-7.51	0.039	0.38	-0.085	-3.77	1.640	10.71
Germany	0.145	0.15	0.064	0.08	0.080	0.92	-0.325	-3.23
France	0.601	0.90	-0.083	-0.18	-0.185	-2.89	-0.333	-1.90
Luxembourg	1.308	4.13	-1.082	-6.13	-0.122	-3.64	-0.114	-0.86
Netherlands	-14.033	-7.52	8.184	7.91	0.075	3.82	5.779	6.28

Table A.2.25, continued

	=		Ш		<u>S</u>		⊇	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
2004	-0.529	-2.93	0.252	1.46	-0.014	-0.19	0.297	1.53
2005	Reference category	ategory	Reference category	ategory	Reference category	sategory	Reference category	ategory
2006	-6.491	-1.90	5.655	1.87	0.106	3.65	0.723	1.72
2007	-11.572	-2.35	9.503	2.17	-0.005	-0.06	1.846	2.12
January	Reference category	ategory	Reference category	ategory	Reference category	sategory	Reference category	ategory
February	-1.490	-4.63	2.033	5.36	-0.090	-4.11	-0.460	-1.42
March	-1.283	-2.02	1.968	7.53	-0.058	-0.90	-0.672	-1.68
April	-1.262	-1.85	1.955	4.26	0.004	0.13	-0.702	-2.89
May	-1.325	-2.25	1.742	9.65	-0.013	-0.52	-0.448	-0.97
June	-1.364	-1.01	1.625	2.88	0.028	0.39	-0.320	-0.40
July	-1.416	-0.42	1.580	0.58	-0.062	-1.17	-0.195	-0.27
August	-4.123	-1.23	4.146	1.49	0.043	0.40	-0.420	-0.68
September	-1.083	-0.45	1.361	0.68	0.057	0.41	-0.676	-1.78
October	0.383	0.25	0.237	0.20	-0.067	-0.77	-0.582	-1.80
November	0.508	0.51	0.319	0.39	-0.077	-0.88	-0.748	-3.15
December	-56.119	-1.97	34.407	1.63	3.475	1.58	4.515	1.09
Pseudo-R²	0.280							
Observations	507,862							

Source: EU-SILC, own calculations. – Notes: II, IE, IS, IU indicate inactivity in period t and inactivity, employment, self-employment and unemployment in period t+1, respectively. Results for transitions into education are not presented due to small smaple sizes. Multinomial logit model;- t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.2.26 Regression results: Transitions from inactivity, Scandinavia

	=		Ш		<u>N</u>		⊇	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
Male	-3.229	-4.14	2.021	2.59	092'0	5.87	0.441	2:92
Female	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	category
Age 15-24	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	category
Age 25-54	3.610	4.07	-3.009	-5.39	0.102	0.36	-0.431	-2.84
Age 55-65	20.258	7.88	-13.781	-4.98	-0.518	-9.62	-3.233	-7.02
Single	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	category
Married living with partner	1.834	1.54	-0.610	-0.51	0.349	3.08	-1.280	-6.34
Not married living with partner	-5.232	-21.22	4.514	16.53	0.712	2.81	0.102	0.37
Low skilled (ISCED 0-2)	6.164	3.91	-5.200	-4.08	-0.530	-3.07	-0.530	-2.75
Medium skilled (ISCED 3-4)	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	category
High skilled (ISCED 5)	-4.196	-1.84	4.217	2.28	0.157	1.14	-0.207	-0.78
Number of children (<= 4) in household	-4.755	-6.51	4.169	8.78	0.020	0.15	0.493	2.50
Number of children (5-14 years) in household	-1.313	-3.45	0.819	2.61	0.155	1.51	0.224	1.60
Number of elderly (>=65 ) in household	4.262	2.65	-4.162	-2.69	0.171	1.36	-0.253	-1.20
Full-time employed partner in household	1.544	2.35	-1.665	-2.77	0.019	0.11	-0.084	-0.55
Part-time employed partner in household	5.991	10.07	-3.585	-8.83	-0.773	-10.21	-1.405	-7.34
Inactive/unemployed partner in household	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	category
COUNTRY								
Denmark	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	category
Finland	-6.258	-14.64	3.063	9.63	2.104	8.11	0.905	6.68
Norway	-6.686	-9.34	5.012	8.55	1.416	13.60	0.029	0.46
Sweden	-10.994	-13.46	9.157	11.73	0.911	14.52	0.480	2.90
2004	-1.062	-0.82	0.663	0.64	0.568	1.30	-0.259	-1.31
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Table A.2.26, continued

	=		Ш		S		⊇	
	Marg. Effect	t-value						
2006	-1.729	-1.37	2.098	1.47	0.127	0.43	-0.508	-4.17
2007	-8.330	-3.05	8.264	3.43	0.267	2.37	-0.279	1.11
January	Reference category	ategory						
February	-1.569	-0.55	-1.341	-0.75	0.459	1.71	2.536	1.90
March	-4.952	-1.21	1.278	0.70	1.462	1.32	2.045	1.34
April	-5.146	-1.67	2.792	1.04	1.753	4.45	0.754	92.0
May	-6.335	-5.33	4.105	3.64	1.078	1.33	1.335	1.37
June	-18.494	-3.50	12.061	3.84	0.525	0.75	5.854	1.93
July	-22.925	-5.01	13.990	5.78	2.006	3.95	2.800	3.56
August	-31.552	-3.00	20.038	2.81	2.036	2.50	4.549	4.61
September	-20.944	-1.32	15.028	1.19	2.110	1.41	3.453	5.09
October	-16.204	-0.99	12.343	0.98	0.936	0.87	2.476	1.03
November	-18.042	-2.39	11.561	1.97	3.702	16.49	2.531	1.62
December	-171.672	-2.73	110.684	2.64	17.673	1.13	38.110	88.9
Pseudo-R²	0.1892							
Observations	104,017							

Source: EU-SILC, own calculations. – Notes: II, IE, IS, IU indicate inactivity in period t and inactivity, employment, self-employment and unemployment in period t+1, respectively. Results for transitions into education are not presented due to small smaple sizes. Multinomial logit model;- t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.2.27 Regression results: Transitions from inactivity, Mediterranean

	=		旦		SI		⊇	
	Marg. Effect	t-value						
Male	-3.148	-3.00	1.723	2.98	1.065	6.28	0.325	1.00
Female	Reference category	sategory						
Age 15-24	Reference category	sategory						
Age 25-54	-0.688	-1.37	0.445	0.86	0.292	3.22	0.047	0.44
Age 55-65	7.062	12.88	-4.497	-21.95	-0.798	-11.86	-1.531	-2.66
Single	Reference category	sategory						
Married living with partner	4.754	7.63	-2.148	-3.67	-0.375	-6.97	-1.214	-3.92
Not married living with partner	0.135	0.32	-0.252	-1.20	0.362	6.62	-0.186	-0.74
Low skilled (ISCED 0-2)	1.706	4.27	-0.954	-4.94	-0.431	-2.59	-0.273	-2.79
Medium skilled (ISCED 3-4)	Reference category	sategory						
High skilled (ISCED 5)	-3.306	-5.85	1.867	8.09	1.121	5.03	0.308	1.12
Number of children (<= 4) in household	-1.611	-9.55	0.992	14.41	0.243	10.50	0.364	3.23
Number of children (5-14 years) in household	-0.692	-6.19	0.369	4.70	0.116	2.10	0.171	3.67
Number of elderly (>=65) in household	1.090	7.34	-0.881	-8.72	-0.114	-2.23	-0.072	-0.50
Full-time employed partner in household	-0.150	-0.26	-0.057	-0.12	-0.005	-0.09	0.082	1.15
Part-time employed partner in household	-1.469	-2.78	0.534	6.03	0.660	2.49	0.078	0.26
Inactive/unemployed partner in household	Reference category	sategory						
COUNTRY								
Cyprus	Reference category	sategory						
Spain	-1.111	-4.26	-0.032	-0.84	-0.267	-5.19	1.397	5.48
Greece	0.331	2.22	-1.357	-34.32	0.824	6.13	0.221	5.64
Italy	-2.131	-8.87	0.435	11.33	0.559	11.41	1.113	4.64
Portugal	-1.404	-5.62	0.379	12.92	0.623	9.13	0.440	3.09

Table A.2.27, continued

	=		Ш		<u>S</u>		⊇	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
2004	1.253	2.56	-0.259	-1.70	-0.517	-8.27	-0.465	-1.58
2005	Reference category	ategory	Reference category	sategory	Reference category	sategory	Reference category	ategory
2006	1.155	1.63	-0.144	-0.42	-0.519	-6.25	-0.484	-1.74
2007	1.998	2.37	-0.209	-0.53	-0.539	-3.44	-1.254	-4.04
January	Reference category	ategory	Reference category	sategory	Reference category	sategory	Reference category	ategory
February	-1.401	-3.87	1.257	2.93	0.287	1.66	-0.153	-2.75
March	-3.067	-3.84	2.066	2.75	0.794	2.73	0.185	1.52
April	-2.541	-3.07	1.469	1.59	0.808	2.05	0.276	1.05
May	-3.388	-3.04	2.910	2.76	0.426	0.99	0.061	0.56
June	-1.990	-1.57	1.729	1.21	0.009	0.11	0.262	2.15
July	-0.739	-1.12	0.579	0.79	-0.126	-1.06	0.285	6.13
August	-7.241	-9.67	5.402	6.97	1.283	3.93	0.164	0.99
September	-4.574	-4.99	3.589	2.66	0.503	2.30	0.383	1.49
October	-2.292	-2.73	1.333	1.36	0.558	2.56	0.408	1.95
November	-0.812	-0.97	0.670	0.65	-0.060	-0.78	0.234	1.48
December	-98.329	-3.77	41.988	3.35	22.465	3.92	32.954	3.73
Pseudo-R²	0.222							
Observations	803,162							

Source: EU-SILC, own calculations. – Notes: II, IE, IS, IU indicate inactivity in period t and inactivity, employment, self-employment and unemployment in period t+1, respectively. Results for transitions into education are not presented due to small smaple sizes. Multinomial logit model;- t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.2.28 Regression results: Transitions from inactivity, CEE

	=		Ш		<u>S</u>		⊇	
	Marg. Effect	t-value						
Male	-1.749	-6.47	1.013	2.84	0.591	7.01	0.143	2.69
Female	Reference category	category	Reference category	sategory	Reference category	category	Reference category	category
Age 15-24	Reference category	category	Reference category	sategory	Reference category	category	Reference category	category
Age 25-54	0.928	2.56	-0.653	-2.63	-0.046	-0.60	-0.216	-2.43
Age 55-65	5.442	10.46	-3.703	-9.35	-0.382	-2.88	-1.307	-9.58
Single	Reference category	category	Reference category	sategory	Reference category	category	Reference category	category
Married living with partner	1.542	60.9	-1.324	-5.53	0.176	0.86	-0.344	-5.18
Not married living with partner	-0.304	-1.55	-0.180	-0.87	0.521	2.12	-0.030	-0.76
Low skilled (ISCED 0-2)	1.661	11.85	-1.700	-15.36	0.212	2.67	-0.172	-2.83
Medium skilled (ISCED 3-4)	Reference category	category	Reference category	sategory	Reference category	category	Reference category	category
High skilled (ISCED 5)	-2.002	-3.35	1.859	3.34	0.254	1.61	-0.108	-1.18
Number of children (<= 4) in household	-0.500	-2.81	0.441	3.21	-0.091	-2.36	0.152	4.86
Number of children (5-14 years) in household	-0.824	-7.56	0.532	7.04	0.097	2.57	0.192	6.47
Number of elderly (>=65) in household	0.355	1.30	-0.629	-1.50	0.256	1.42	0.015	0.49
Full-time employed partner in household	-1.576	-6.64	0.875	4.85	0.397	4.00	0.285	4.40
Part-time employed partner in household	4.109	-7.34	1.144	1.55	2.410	7.18	0.564	2.56
Inactive/unemployed partner in household	Reference category	category	Reference category	sategory	Reference category	category	Reference category	category
COUNTRY								
Czech Republic	Reference category	category	Reference category	sategory	Reference category	category	Reference category	category
Bulgaria	-4.673	-11.34	2.868	15.53	1.395	5.32	0.403	6.30
Estonia	-2.891	-11.35	2.879	16.26	0.063	0.59	-0.073	-1.40
Hungary	-1.053	-6.04	1.197	9.87	-0.043	-0.58	-0.108	-2.07
Lithuania	-2.718	-8.50	1.954	10.88	0.991	5.45	-0.237	-4.48
Latvia	-4.491	-12.28	3.511	19.12	0.725	3.61	0.253	7.17

Table A.2.28, continued

	=		Ш		<u>S</u>		⊇	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
Poland	-1.809	-7.03	0.045	0.38	1.768	8.69	-0.008	-0.20
Romania	0.593	1.26	-1.936	-17.44	1.861	4.02	-0.516	-3.97
Slovenia	-0.883	-3.84	0.265	1.95	-0.217	-3.94	0.811	8.61
Slovakia	0.277	2.23	0.114	0.94	-0.280	-23.02	-0.107	-3.16
2004	0.250	0.57	-0.349	-1.04	-0.066	-0.73	0.170	2.41
2005	Reference category	ategory	Reference category	sategory	Reference category	sategory	Reference category	ategory
2006	-0.942	-1.59	0.838	2.00	0.127	1.72	-0.027	-0.19
2007	-2.668	-4.74	2.619	3.82	0.249	44.	-0.207	-2.52
January	Reference category	ategory	Reference category	sategory	Reference category	sategory	Reference category	ategory
February	-4.426	-3.05	2.275	3.42	1.639	2.08	0.519	2.40
March	-6.073	-7.21	3.230	5.92	2.089	3.50	0.761	4.23
April	-5.975	-7.08	4.089	6.11	1.322	4.20	0.570	3.76
May	-3.960	-6.64	3.210	5.39	0.420	1.91	0.338	2.64
June	-5.936	-7.64	4.485	5.97	0.496	2.51	0.961	4.45
July	-1.866	-3.20	2.000	3.75	-0.523	-2.65	0.395	1.94
August	-8.710	-6.54	8.060	7.60	-0.216	-0.77	0.840	4.22
September	-3.673	-5.72	3.390	6.40	-0.568	-1.87	0.845	5.09
October	-1.803	-3.35	1.934	3.86	-0.599	-2.29	0.475	3.21
November	0.036	90.0	0.353	0.98	-0.709	-7.01	0.328	1.50
December	-83.800	-5.41	54.019	5.78	9.194	1.97	20.508	8.54
Pseudo-R²	0.162							
Observations	1,053,709							

Source: EU-SILC, own calculations. – Notes: II, IE, IS, IU indicate inactivity in period t and inactivity, employment, self-employment and unemployment in period t+1, respectively. Results for transitions into education are not presented due to small smaple sizes. Multinomial logit model;- t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.2.29 Regression results: Transitions from inactivity, UK and Ireland

	=		Ш		<u>S</u>		⊇	
	Marg. Effect	t-value						
Male	-0.177	-0.75	-1.030	-9.28	0.781	119.48	0.385	4.82
Female	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	sategory
Age 15-24	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	sategory
Age 25-54	3.283	33.17	-3.232	-68.60	0.115	1.27	-0.097	-3.68
Age 55-65	9.045	26.03	-8.461	-37.24	0.186	4.86	-0.435	-8.39
Single	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	sategory
Married living with partner	0.994	1.57	-0.523	-0.92	0.131	4.76	-0.454	-15.74
Not married living with partner	-7.262	-52.08	6.224	34.81	1.160	16.64	-0.112	-1.02
Low skilled (ISCED 0-2)	10.624	162.37	-9.298	-48.36	-1.209	-41.92	-0.020	-1.20
Medium skilled (ISCED 3-4)	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	sategory
High skilled (ISCED 5)	-4.471	-7.26	3.694	6.64	0.535	10.03	0.181	4.51
Number of children (<= 4) in household	2.489	63.89	-2.313	-15.07	-0.135	-5.98	-0.092	-0.94
Number of children (5-14 years) in household	0.692	10.55	-0.876	-22.97	0.039	3.78	0.125	22.21
Number of elderly (>=65 ) in household	0.207	0.97	0.631	5.74	-0.364	-4.18	-0.228	-1.87
Full-time employed partner in household	-10.164	-12.71	9.388	14.55	0.590	26.40	0.185	1.10
Part-time employed partner in household	-10.938	-5.81	9.337	4.82	1.497	22.21	0.065	9.12
Inactive/unemployed partner in household	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	sategory
COUNTRY								
Ireland	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	sategory
United Kingdom	-3.220	-18.75	2.717	20.45	0.744	132.72	-0.230	-7.67
2004	0.724	20.53	-0.574	-8.95	-0.216	-31.67	0.047	1.27
2005	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	sategory
2006	-0.860	-3.83	1.142	4.52	-0.427	-43.91	0.119	2.92
2007	-1.132	-8.04	1.323	5.75	-0.411	-16.10	0.205	2.80

Table A.2.29, continued

	=		Ш		SI		⊇	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
January	Reference category	ategory	Reference category	sategory	Reference category	sategory	Reference category	sategory
February	1.041	14.86	-0.566	321.93	-0.784	-74.29	0.357	11.02
March	-2.239	-6.05	2.053	8.13	0.244	2.94	-0.011	-0.98
April	-3.040	-39.26	2.683	36.93	0.272	6.47	0.146	1.54
May	-1.572	-13.04	2.309	17.18	-0.608	-7.57	-0.012	-0.47
June	-4.059	-6.08	3.571	4.78	0.052	45.1	0.497	80.34
Лиly	-4.658	-13.16	4.867	16.42	-0.899	-22.87	0.629	29.56
August	-6.578	-10.64	5.848	15.35	0.201	2.60	0.106	8.28
September	-4.668	-7.28	4.760	7.48	-0.048	-0.62	-0.099	-3.01
October	-6.035	-12.85	6.183	12.31	-0.187	-4.44	0.146	7.77
November	2.065	2.03	-1.063	-1.17	-0.513	100.79	-0.466	-4.22
December	-113.494	-17.93	86.979	68.07	8.963	29.33	16.887	3.63
Pseudo-R <sup>2</sup>	0.141							
Observations	147,854							

Source: EU-SILC, own calculations. – Notes: II, IE, IS, IU indicate inactivity in period t and inactivity, employment, self-employment and unemployment in period t+1, respectively. Results for transitions into education are not presented due to small smaple sizes. Multinomial logit model;- t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.3.1

METR at personal and household level by household type

		Median in	per cent			Number of ol	oservations	
	METR UE	METR-HH UE	METR IE	METR-HH IE	METR UE	METR-HH UE	METR IE	METR-HH IE
Single, no children	26.40	27.60	20.00	20.20	4,467	4,465	1,009	1,009
Single, 1 child	25.00	27.00	20.10	20.20	1,037	1,036	283	283
Single, 2 or more children	26.30	26.70	15.30	15.30	448	448	118	118
Partner, no child	45.40	45.40	18.80	20.20	633	633	144	144
Partner, 1 child	42.10	42.10	20.10	20.10	372	371	150	149
Partner, 2 or more children	46.70	47.60	20.30	20.80	276	276	134	134
Married, no child	41.40	42.30	19.10	21.10	1,979	1,979	597	597
Married, 1 child	36.20	36.40	19.80	21.50	1,556	1,556	570	570
Married, 2 or more children	34.20	37.70	20.10	20.20	1,604	1,604	649	649
Total	29.30	29.30	20.00	20.20	12,628	12,624	3,723	3,722

Source: EU-SILC, own calculations. – Notes: METR = marginal effective tax rate at personal level, METR-HH = marginal effective tax rate at household level; UE = transition from unemployment to employment, IE = Transition from inactivity to employment.

Table A.3.2 **METR at personal and household level by country** 

		Median in	per cent			Number of ob	servations	3
	METR UE	METR-HH UE	METR IE	METR-HH IE	METR UE	METR-HH UE	METR IE	METR-HH IE
Austria	60.80	60.30	20.00	23.20	733	733	163	163
Belgium	66.50	63.80	30.80	31.60	368	368	217	217
Bulgaria	16.10	17.20	(21.0)	(23.0)	556	556	89	89
Czech Republic	29.70	24.90	20.50	20.90	549	549	108	108
Estonia	17.80	18.10	15.90	15.90	734	733	442	442
Spain	25.00	28.60	9.60	10.80	3,104	3,102	423	423
France	52.00	51.10	20.10	20.10	553	553	132	132
Greece	36.50	34.30	(16.0)	(16.0)	225	225	40	40
Italy	31.20	31.80	17.50	18.20	908	908	664	664
Luxembourg	28.60	30.80	14.00	17.10	542	542	138	138
Latvia	17.50	19.00	18.20	18.80	280	280	155	155
Poland	27.70	27.70	27.60	27.60	2,384	2,384	453	453
Portugal	18.50	18.50	15.50	16.60	269	268	126	126
Romania	(25.0)	(25.0)	(22.0)	(22.0)	42	42	37	37
Sweden	59.10	55.40	22.60	22.20	332	332	119	119
Slovenia	28.20	28.20	25.90	25.80	1,049	1,049	417	416
Total	29.30	29.30	20.00	20.20	12,628	12,624	3,723	3,722

Source: EU-SILC, own calculations. – Notes: METR = marginal effective tax rate at personal level, METR-HH = marginal effective tax rate at household level; UE = transition from unemployment to employment, IE = Transition from inactivity to employment. Results in parentheses indicate less than 100 observations.

Table A.3.3 METR at personal and household level by age group, skill group and gender

		Median in		<u> </u>	_	Number of ob	servations	
	METR UE	METR-HH UE	METR IE	METR-HH IE	METR UE	METR-HH UE	METR IE	METR-HH IE
Age 15-24	22.40	24.60	20.00	20.00	3,827	3,824	951	951
Age 25-54	33.70	33.30	20.10	20.30	8,328	8,327	2,576	2,575
Age 55-65	44.40	44.80	19.60	19.80	465	465	181	181
Education								
Low skilled (ISCED 0-2)	29.30	29.50	15.60	17.50	4,497	4,494	1,253	1,252
Medium skilled (ISCED 3-4)	29.30	29.30	20.70	21.70	6,072	6,071	1,743	1,743
High skilled (ISCED 5)	32.00	32.60	20.30	20.30	1,620	1,620	624	624
Gender								
Female	29.30	29.30	20.00	20.20	5,624	5,622	2,318	2,317
Male	29.30	29.60	19.80	20.10	7,002	7,000	1,405	1,405

Source: EU-SILC, own calculations. – Notes: METR = marginal effective tax rate at personal level, METR-HH = marginal effective tax rate at household level; UE = transition from unemployment to employment, IE = Transition from inactivity to employment.

Table A.3.4 **METR** at personal and household level by year

		Median in	per cent			Number of ob	servations	
	METR UE	METR-HH UE	METR IE	METR-HH IE	METR UE	METR-HH UE	METR IE	METR-HH IE
2004	34.30	37.10	15.10	17.70	1,456	1,455	398	398
2005	29.10	29.10	20.10	20.10	3,339	3,338	899	899
2006	29.30	29.30	20.00	20.20	4,834	4,834	1,374	1,373
2007	27.70	28.30	21.10	21.30	2,999	2,997	1,052	1,052
Total	29.30	29.30	20.00	20.20	12,628	12,624	3,723	3,722

Source: EU-SILC, own calculations. – Notes: METR = marginal effective tax rate at personal level, METR-HH = marginal effective tax rate at household level; UE = transition from unemployment to employment, IE = Transition from inactivity to employment.

Table A.3.5 **CR at personal and household level by type of household** 

	Mean in	per cent	Number of c	bservations
	All unemployed	Newly unemployed	All unemployed	Newly unemployed
Single, no children	23	44	121,845	4,426
Single, 1 child	21	41	30,746	921
Single, 2 or more children	25	40	14,227	360
Partner, no child	45	58	12,978	732
Partner, 1 child	45	64	8,757	400
Partner, 2 or more children	36	61	8,014	290
Married, no child	36	58	52,987	1,988
Married, 1 child	30	56	45,705	1,742
Married, 2 or more children	33	59	47,375	1,628

Source: EU-SILC, own calculations. – Notes: The coverage ratio (CR) indicates the number of (newly) unemployed persons receiving unemployment benefits divided by the total number of (newly) unemployed persons. "Newly unemployed" is defined as having made a transition from employment to unemployment during the last 12 months.

## **RWI**

Table A.3.6 **CR by country** 

	Mean in	per cent	Number of o	bservations
	All unemployed	Newly unemployed	All unemployed	Newly unemployed
Austria	85	91	8,999	709
Belgium	92	92	16,545	318
Bulgaria	3	11	14,318	359
Czech Republic	24	77	9,250	341
Estonia	11	20	12,083	502
Spain	36	59	51,981	3,000
France	43	59	23,841	879
Greece	8	24	15,326	668
Italy	13	42	77,958	1,732
Luxembourg	43	63	9,329	505
Latvia	19	26	9,765	402
Poland	13	30	63,479	1,597
Portugal	25	25	13,528	583
Romania	16	(61)	2,509	17
Sweden	63	67	5,007	375
Slovenia	27	55	18,137	827
Total	29	51	352,055	12,814

Source: EU-SILC, own calculations. – Notes: The coverage ratio (CR) indicates the number of (newly) unemployed persons receiving unemployment benefits divided by the total number of (newly) unemployed persons. "Newly unemployed" is defined as having made a transition from employment to unemployment during the last 12 months. Results in parentheses indicate less than 100 observations.

Table A.3.7 CR by age group, skill group and gender

	Mean in	per cent	Number of c	bservations
	All unemployed	Newly unemployed	All unemployed	Newly unemployed
Age 15-24	17	38	92,352	3,347
Age 25-54	33	56	259,101	9,462
Education				
Low skilled (ISCED 0-2)	27	50	142,616	5,080
Medium skilled (ISCED 3-4)	28	52	160,997	5,694
High skilled (ISCED 5)	36	56	35,940	1,634
Gender				
Female	28	51	196,834	5,975
Male	30	52	155,158	6,837

Source: EU-SILC, own calculations. – Notes: The coverage ratio (CR) indicates the number of (newly) unemployed persons receiving unemployment benefits divided by the total number of (newly) unemployed persons. "Newly unemployed" is defined as having made a transition from employment to unemployment during the last 12 months.

Table A.3.8 CR by year

	Mean in	per cent	Number of c	bservations
	All unemployed	Newly unemployed	All unemployed	Newly unemployed
2004	24.00	40.00	63,124	2,640
2005	27.00	50.00	109,225	3,782
2006	34.00	61.00	106,594	3,807
2007	31.00	59.00	73,112	2,585
Total	29.00	51.00	352,055	12,814

Source: EU-SILC, own calculations. – Notes: The coverage ratio (CR) indicates the number of (newly) unemployed persons receiving unemployment benefits divided by the total number of (newly) unemployed persons. "Newly unemployed" is defined as having made a transition from employment to unemployment during the last 12 months.

Table A.3.9

Realised NRR at personal and household level by type of household

		Median in	per cent			Number of o	bservations	
	NRR EU	NRR-HH EU	NRR EU 2	NRR-HH EU 2	NRR EU	NRR-HH EU	NRR EU 2	NRR-HH EU 2
Single, no children	53.90	83.50	52.00	83.30	1,798	1,798	1,811	1,797
Single, 1 child	59.40	92.10	53.80	90.40	341	341	343	341
Single, 2 or more children	67.00	91.70	58.30	91.60	142	142	147	142
Partner, no child	60.70	88.20	60.40	88.20	422	422	425	422
Partner, 1 child	66.30	90.70	59.60	90.60	230	230	224	230
Partner, 2 or more children	63.90	86.80	52.70	86.80	164	164	156	163
Married, no child	60.00	90.10	58.80	90.10	1,117	1,117	1,129	1,117
Married, 1 child	63.00	88.40	58.30	88.40	921	921	930	921
Married, 2 or more children	61.70	87.30	52.40	86.50	859	859	869	859
Total	59.30	87.10	54.80	86.80	6,045	6,045	6,001	6,043

Source: EU-SILC, own calculations. – Notes: NRR = net replacement rate at personal level, NRR-HH = net replacement at household level; EU = transition from employment to unemployment; 2: Calculation without family benefits and housing allowances.

Table A.3.10

Realised NRR at the personal and household level by country

		Median in	per cent			Number of o	bservations	8
	NRR EU	NRR-HH EU	NRR EU 2	NRR-HH EU 2	NRR EU	NRR-HH EU	NRR EU 2	NRR-HH EU 2
Austria	55.90	85.40	51.20	84.50	625	625	625	625
Belgium	64.00	84.30	60.00	83.50	275	275	270	275
Bulgaria	(56.0)	(84.0)	(56.0)	(84.0)	37	37	37	37
Czech Republic	50.00	94.30	45.60	94.20	265	265	261	265
Estonia	49.20	78.60	38.30	78.60	118	118	118	118
Spain	61.00	87.90	60.50	87.90	1,656	1,656	1,656	1,656
France	63.90	88.20	54.60	87.40	535	535	522	535
Greece	36.90	83.80	35.90	83.80	157	157	157	157
Italy	43.00	75.40	38.80	75.10	666	666	666	666
Luxembourg	99.50	99.60	99.10	99.50	315	315	307	314
Latvia	35.40	77.00	32.80	77.00	107	107	106	107
Poland	60.70	92.80	57.40	92.70	462	462	457	461
Portugal	72.30	90.60	72.10	90.60	152	152	148	152
Romania	1	1	1	1	9	9	9	9
Sweden	79.70	91.00	76.50	91.00	229	229	225	229
Slovenia	62.20	91.40	58.20	91.30	437	437	437	437
Total	59.30	87.10	54.80	86.80	6,045	6,045	6,001	6,043

Source: EU-SILC, own calculations. – Notes: NRR = net replacement rate at personal level, NRR-HH = net replacement at household level; EU = transition from employment to unemployment; 2: Calculation without family benefits and housing allowances.

Table A.3.11

Realised NRR at the personal and household level by age group, skill group and gender

		Median in	per cent			Number of o	bservations	
	NRR EU	NRR-HH EU	NRR EU 2	NRR-HH EU 2	NRR EU	NRR-HH EU	NRR EU 2	NRR-HH EU 2
Age 15-24	58.70	89.70	54.40	89.20	1,126	1,126	1,118	1,125
Age 25-54	59.30	86.60	55.40	86.20	4,918	4,918	4,882	4,917
Education								
Low skilled (ISCED 0-2)	59.40	87.00	55.50	86.80	2,282	2,282	2,268	2,282
Medium skilled (ISCED 3-4)	59.30	87.60	54.10	87.30	2,766	2,766	2,743	2,764
High skilled (ISCED 5)	56.80	84.60	54.40	84.40	843	843	836	843
Gender								
Female	59.30	89.60	54.80	89.50	2,916	2,916	2,884	2,916
Male	59.00	85.10	54.80	84.80	3,128	3,128	3,116	3,126

Source: EU-SILC, own calculations. – Notes: NRR = net replacement rate at personal level, NRR-HH = net replacement at household level; EU = transition from employment to unemployment; 2: Calculation without family benefits and housing allowances.

Table A.3.12

Realised NRR at the personal and household level by year

		Median in	per cent			Number of ol	servations	
	NRR EU	NRR-HH EU	NRR EU 2	NRR-HH EU 2	NRR EU	NRR-HH EU	NRR EU 2	NRR-HH EU 2
2004	63.30	92.30	58.00	91.80	961	961	948	961
2005	57.30	88.20	53.00	87.90	1,668	1,668	1,655	1,668
2006	56.90	85.00	53.00	84.70	2,053	2,053	2,041	2,052
2007	59.40	81.40	56.40	80.80	1,363	1,363	1,357	1,362
Total	59.30	87.10	54.80	86.80	6,045	6,045	6,001	6,043

Source: EU-SILC, own calculations. – Notes: NRR= net replacement rate at personal level, NRR-HH = net replacement at household level; EU = transition from employment to unemployment; 2: Calculation without family benefits and housing allowances.

Table A.3.13 Simulated METR for an unemployed person (1st month of unemployment)

Slovenia	96	81	29	69	96	98	73	63	96	80	29	29	95	87	79	69	100	83	80	89	96	84	69	61
Sweden	66	82	99	61	100	82	89	63	66	82	99	61	66	98	74	29	100	06	73	99	66	82	99	61
Portugal	101	82	99	22	88	79	09	51	105	85	89	22	06	79	64	99	63	61	69	51	104	84	89	22
Poland	96	79	49	23	12	80	49	22	71	62	25	46	79	96	78	61	100	87	74	61	82	29	55	84
) Latvia	104	98	89	99	100	82	99	54	108	88	02	22	26	80	64	53	92	77	62	52	93	77	62	52
Luxembourg	107	88	73	99	102	96	73	61	103	82	69	61	115	88	71	63	101	104	9/	63	107	88	72	63
Italy	81	72	19	99	9/	89	28	54	84	74	62	99	88	99	09	29	8	19	28	22	87	79	69	61
Greece	69	29	23	46	73	61	54	48	52	46	44	41	84	29	28	20	87	69	29	51	29	51	47	43
France	62	09	51	48	69	51	44	39	75	53	46	42	80	99	52	45	70	64	51	43	78	92	47	4
Spain	26	82	2	22	96	78	61	51	92	1	61	25	96	1	61	25	96	1	09	20	92	79	62	25
Estonia	92	63	20	41	9/	62	20	4	9/	63	20	41	9/	63	20	41	9/	62	20	41	9/	63	20	41
Czech Republic	80	72	62	23	79	71	61	52	9/	64	52	46	82	11	89	22	6/	69	28	20	88	11	61	51
Belgium	06	83	74	69	81	75	29	63	80	75	89	92	98	79	7	29	78	73	99	63	80	75	89	65
Austria	75	89	09	99	8	74	92	69	8	72	63	28	82	72	63	28	96	82	20	62	87	77	99	09
% of APW	909	29	100	150	20	29	100	150	20	29	100	150	20	29	100	150	20	29	100	150	20	29	100	150
Family Type	Single, no children				Single, 2 children				One-earner adult couples				One-earner adult couples, 2 children				Two-earner adult couple				Two-earner adult couple, 2 children			

Source: Carone, G., K. Stovicek, F. Pierini and E. Sail (2009). – Notes: previous work at 67% of the Average production worker (APW) wage level, returning to work at 2007. The wage level of first earner is fixed at 67% of the average worker (AW), while the wage level of the second earner is indicated in each column. The APW is a methodology by the OECD to express the earnings by the "Average Production Worker" which was used until 2007. The definition of the benchmark was significantly broadened in 2007 by mainly extending the coverage in terms of industry sector from D to sectors C to K. Moreover the AW method includes manual and non-manual workers. For detailed description see Annex A of OECD (2007).

Table A.3.14 Realised METR UE at personal level by country and OECD household classification

			ME	Median in per cent	ant					Number of o	Number of observations			
	Single, no children	Single, 2 children	One-earner adult adult couples couples, 2 children	One-earner adult couples, 2 children	Two-earner Two-earner adult couple, 2 children	Two-earner adult couple, 2 children	Total	Single, no children	Single, 2 children	One-earner adult couples	One-earner adult couples, 2 children	Two-earner Two-earner adult couple adult couple, 2 children	Two-earner adult couple, 2 children	Total
Austria	09	(41)	(63)	1	(89)	1	09	251	30	39	8	28	4	360
Belgium	2	,	_	_	<u>\$</u>	_	29	154	15	17	က	44	80	241
Bulgaria	4	,	/	(23)	_	_	4	156	19	22	8	က	0	234
Czech Republic	31	(33)	/	_	_	_	59	233	56	12	2	18	9	300
Estonia	18	(15)	(15)	_	(17)	_	18	260	38	35	12	59	14	388
Spain	15	(12)	(33)	_	47	_	17	1,009	88	55	15	117	20	1,304
France	33	,	(45)	_	(20)		45	164	15	59	15	92	1	299
Greece	(16)	,	_	_	_		(16)	80	_	က	0	0	0	84
Italy	24	,	_	_	_	/	25	410	17	16	4	15	_	463
Luxembourg	23	,	_	_	(71)	/	52	192	23	10	80	39	80	280
Latvia	7	,	_	_	_		17	108	15	12	4	10	_	150
Poland	78	28.00	(28)	_	_		78	752	113	53	12	17	က	950
Portugal	18	,	/	_	_	_	18	103	80	6	4	15	9	145
Romania	/	/	/	_	_	/	_	13	7	2	~	0	0	18
Sweden	(47)	,	99	(62)	_	_	61	22	9	189	45	0	0	297
Slovenia	27	(28)	_	_	(20)	/	61	482	30	20	80	69	4	623
Total	26	26	44	42	45	(09)	27	4,424	446	523	178	469	96	6,136

Source: EU-SILC, own calculations. – Notes: METR = marginal effective tax rate. Results in parentheses indicate less than 100 observations and more than 25 observations are marked by /.

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Realised METR IE at personal level by country and OECD household classification Table A.3.15

			¥	Median in per cent	int					Number of c	Number of observations			
	Single, no children	Single, 2 children	One-earner adult couples	One-earner One-earner adult couples couples, 2 children	Two-earner adult couple	Two-earner adult couple, 2 children	Total	Single, no children	Single, 2 children	One-earner adult couples	One-earner adult couples, 2 children	Two-earner adult couple	Two-earner adult couple, 2 children	Total
Austria	(23)	1	1	1	1	1	(23)	32	7	2	1	9	2	20
Belgium	(32)	_	_	,	,	/	(32)	38	2	o	4	20	7	83
Bulgaria	/	_	_	,	,	/	(17)	18	2	7	7	0	0	27
Czech Republic	,	/	_	/	,	/	(19)	80	4	2	2	4	2	25
Estonia	15	(16)	(11)	/	(17)	/	16	107	30	56	1	35	18	227
Spain	13	_	_	/	_	/	12	101	6	2	_	1	2	129
France	(20)	/	_	/	,	/	(20)	32	က	7	0	10	12	29
Greece	/	_	_	,	,	/	/	0	7	-	0	0	0	12
Italy	20	/	_	/	,	/	20	207	6	13	7	9	10	247
Luxembourg	(21)		_	_	_	/	(19)	56	4	2	က	∞	9	49
Latvia	,		_	_	_	/	(16)	23	7	4	_	12	9	53
Poland	(28)	_	_	/	_	/	78	8	41	80	7	က	2	123
Portugal	(17)	/	_	,	,	/	(15)	36	7	2	7	4	-	53
Romania	/	/	_	,	_	/	/	13	0	~	_	0	0	15
Sweden	,	_	(23)		_	/	(21)	4	0	28	23	0	0	92
Slovenia	56	_	,	/	_	,	25	237	16	6	ო	21	ဇ	289
Total	20	16	20	(21)	20	(20)	20	866	117	149	58	140	74	1,536

Source: EU-SILC, own calculations. – Notes: METR = marginal effective tax rate at personal level, IE = transition from inactivity to employment, Results in parentheses indicate less than 100 observations and more than 25 observations. Less than 25 observations are marked by /.

Table A.3.16 Simulated NRR for six family types: initial phase of unemployment 2004; different earnings levels<sup>1</sup>

			67% of AW	f AW					100% of AW	AW					150% of AW	AW		
		No children			2 children			No children		2	2 children			No children			2 children	
	Single person	One-eamer married	One-earner Two-earner Lone parent One-earner married married	Lone parent		Two-eamer married	Single person	One-earner Two-earner Lone parent One-earner Two-earner married married married	wo-earner Lo married	one parent Or	ne-eamer Tv married	wo-earner married	Single (person	One-eamer 1 married	One-eamer Two-earner Lone parent One-earner Two-earner married married married	one parent (	One-earner T married	wo-eamer married
Austria	22	25	81	71	72	98	55	22	77	29	89	82	43	43	65	52	53	69
Belgium	77	29	84	75	71	83	28	20	69	09	99	72	43	38	22	46	43	19
Czech Republic	99	22	92	69	83	82	20	56	72	71	99	92	20	51	29	61	92	69
France	9/	7	87	8	2	87	29	99	80	29	99	81	29	29	78	89	29	78
Greece	4	47	99	22	28	89	32	34	54	40	42	28	23	24	44	29	30	47
Italy	51	51	62	55	299	82	54	56	75	09	62	78	46	49	65	99	28	89
Luxembourg	83	81	6	88	88	93	84	82	88	91	87	95	92	73	81	80	77	83
Poland	75	78	75	9/	70	80	51	54	61	81	56	99	35	37	48	55	40	20
Portugal	78	92	91	87	82	95	84	79	92	82	78	95	88	83	93	87	82	93
Spain	74	74	87	9/	9/	88	62	63	78	75	75	98	43	4	62	22	22	70
Sweden	82	82	91	91	88	92	64	64	79	78	70	80	47	47	65	61	53	29

percentage of AW relates to one spouse only; the second spouse is assumed to be "inactive" with no earnings in a one-earner couple and to have full-time earnings equal to 67% of AW in a two-earner couple. Children are aged 4 and 6 and neither childcare benefits nor childcare costs are considered. Source: OECD, Tax-Benefit Models. - <sup>1</sup> Initial phase of unemployment but following any waiting period. AW = Average wage. No social assistance "top-ups" are assumed to be available in either the in-work or out-of-work situation. Any income taxes payable on unemployment benefits are determined in relation to annualised benefit values (i.e. monthly values multiplied by 12) even if the maximum benefit duration is shorter than 12 months. See Annex A of OECD (2007) for details. For married couples the

Table A.3.17
Simulated NRR for six family types: initial phase of unemployment 2005; different earnings levels<sup>1</sup>

			67% of AW	r AW					100% of AW	AW					150% of AW	AW		
		No children			2 children		_	No children		2 cf	2 children		_	No children		2	2 children	
	Single person	One-eamer married couple	One-earner Two-earner Lone parent One-earner married married couple couple	one parent (		Two-earner married couple	Single C person	One-eamer Ty married couple	wo-earner Lo married couple	One-earner Two-earner Two-earner married married married couple couple couple	ne-earner Two married m couple o		Single C person	One-eamer T married couple	One-eamer Two-eamer Lone parent One-eamer Two-earner married married married couple couple couple	one parent O	ne-eamer Ty married couple	vo-earner married couple
OECD countries																		
Austria	55	22	81	22	72	82	55	56	77	29	89	84	42	43	64	51	52	89
Belgium	77	99	81	75	70	83	28	20	69	59	56	72	43	38	22	46	43	09
Czech Republic	26	22	77	20	64	98	20	22	72	71	29	84	20	51	89	09	63	74
France	75	74	87	8	83	87	29	99	80	29	29	81	89	29	78	89	29	78
Greece	48	51	29	09	63	77	35	38	22	44	47	92	25	27	46	32	34	53
Italy	64	63	83	92	64	83	62	29	78	71	72	81	45	48	63	25	22	99
Luxembourg	83	81	06	88	88	93	85	82	88	95	87	95	9/	74	82	80	77	84
Poland	75	78	75	100	70	80	51	54	61	80	99	99	35	37	48	55	40	51
Portugal	77	75	06	98	82	91	83	78	91	81	77	95	87	82	92	98	81	93
Spain	9/	75	88	78	11	68	62	63	78	92	75	87	43	43	62	22	54	20
Sweden	82	82	91	91	68	95	62	62	78	77	69	79	46	46	64	09	52	99
Non-OECD countries																		
Estonia	26	99	78	92	61	79	55	22	73	62	61	75	54	99	89	29	28	20
Latvia	83	80	93	100	100	94	85	83	92	82	80	93	98	84	91	8	82	92
Slovenia	75	79	86	80	06	06	65	75	80	88	81	81	47	22	65	89	99	29

percentage of AW relates to one spouse only; the second spouse is assumed to be "inactive" with no earnings in a one-earner couple and to have full-time earnings equal to 67% of AW in a two-earner couple. Children are aged 4 and 6 and neither childcare benefits nor childcare costs are considered. Source: OECD, Tax-Benefit Models. - 'Initial phase of unemployment but following any waiting period. AW = Average wage. No social assistance "top-ups" are assumed to be available in either the in-work or out-of-work situation. Any income taxes payable on unemployment benefits are determined in relation to annualised benefit values (i.e. monthly values multiplied by 12) even if the maximum benefit duration is shorter than 12 months. See Annex A of OECD (2007) for details. For married couples the

Table A.3.18 Simulated NRR for six family types: initial phase of unemployment 2005; different earnings levels<sup>1</sup>

			67% of AW	of AW					100% of AW	F AW					150% of AW	of AW		
		No children			2 children			No children		2	2 children			No children			2 children	
	Single person	One-earner Two-earner married married couple couple	Two-earner married couple	One-earne Lone parent married couple	Б	Two-eamer married couple	Single	One-eamer Two-earner married married couple couple		O Lone parent	One-earner Two-earner married married couple couple	wo-earner married couple	Single person	One-earner Two-earner married married couple couple		Lone parent	One-earner Two-earner married married couple couple	fwo-earner married couple
OECD countries																		
Austria	22	22	81	70	71	82	55	26	77	99	89	81	42	42	49	51	52	89
Belgium	12	99	81	75	70	83	22	20	69	69	22	7.1	42	38	22	45	43	09
Czech Republic	22	28	77	70	25	98	20	26	73	02	29	80	20	51	89	69	61	74
France	75	70	87	83	83	87	29	99	80	29	29	81	89	29	78	89	29	78
Germany	61	63	88	79	79	93	61	09	98	72	74	91	29	28	81	99	89	98
Italy	99	64	83	65	94	83	61	99	77	20	71	81	45	48	63	54	99	29
Luxempourg	83	81	06	88	88	93	85	82	88	92	88	95	75	74	82	80	11	83
Poland	74	77	75	86	69	62	51	53	61	78	26	64	34	36	47	53	40	20
Portugal	78	76	06	98	82	91	84	78	95	82	78	93	98	80	91	84	42	91
Spain	92	75	88	78	77	68	61	62	77	92	9/	87	42	43	61	54	54	69
Sweden	82	82	91	91	06	95	61	61	77	92	69	62	45	45	64	09	52	99
Non-OECD countries																		
Estonia	99	26	78	49	92	80	54	22	73	63	29	75	53	22	89	29	29	20
Latvia	83	80	93	100	100	94	82	83	95	82	80	93	98	84	91	83	82	95
Slovenia	75	81	86	81	88	06	99	92	80	88	80	81	47	56	65	69	65	89

percentage of AW relates to one spouse only; the second spouse is assumed to be "inactive" with no earnings in a one-earner couple and to have full-time earnings equal to 67% of AW in a two-earner couple. Children are aged 4 and 6 and neither childcare benefits nor childcare costs are considered. Source: OECD, Tax-Benefit Models. - <sup>1</sup> Initial phase of unemployment but following any waiting period. AW = Average wage. No social assistance "top-ups" are assumed to be available in either the in-work or out-of-work situation. Any income taxes payable on unemployment benefits are determined in relation to annualised benefit values (i.e. monthly values multiplied by 12) even if the maximum benefit duration is shorter than 12 months. See Annex A of OECD (2007) for details. For married couples the

Table A.3.19
Simulated NRR for six family types: initial phase of unemployment 2005; different earnings levels<sup>1</sup>

			67% of AW	AW					100% of AW	AW.					150% of AW	f AW		
		No children		. 4	2 children			No children		2	2 children			No children			2 children	
	Single person	One-earner married couple	One-earner Two-earner Two-earner married married married couple couple couple	one parent G	One-earner T married couple	Two-earner married couple	Single	One-earner T married couple	One-earner Two-earner Tone parent One-earner Two-earner married married married couple couple couple	one parent Or	ne-earner T married couple	wo-earner married couple	Single	One-earner married couple	One-earner Two-earner Tone parent One-earner Two-earner married married married couple couple couple	one parent (	One-earner T married couple	wo-earner married couple
OECD countries																		
	22	22	81	70	71	82	55	26	17	99	29	81	45	43	2	51	52	89
	77	99	80	78	20	83	28	20	69	61	22	71	43	38	22	47	43	09
Czech Republic	69	99	12	78	72	98	51	29	72	69	92	88	20	52	89	22	25	71
	99	78	79	98	8	83	51	62	72	75	73	9/	4	49	2	61	28	29
	70	89	8	81	81	82	99	99	80	69	69	81	69	29	77	89	29	78
	20	25	29	2	29	2/8	37	40	22	47	49	29	56	27	45	33	35	53
	65	61	83	29	2	87	62	63	11	72	20	80	45	46	63	99	22	99
Luxembourg	83	82	06	88	88	88	82	82	88	95	88	95	75	74	82	80	77	2
	89	69	72	87	61	9/	47	48	28	29	48	62	32	33	45	45	8	49
	78	75	06	11	9/	91	8	78	92	82	77	95	86	80	91	82	79	91
	78	75	88	9/	9/	06	62	63	78	9/	77	87	45	4	62	22	22	02
	9/	9/	88	87	82	68	53	53	72	70	62	74	40	40	09	22	48	62
Non-OECD countries																		
	22	22	77	25	22	62	25	26	73	61	09	74	53	42	89	28	28	69
	82	79	93	88	82	86	8	81	92	80	78	93	85	83	91	82	81	95
Slovenia	72	82	98	82	98	06	62	73	11	98	82	88	4	25	62	92	2	92

(2007) for details. For married couples the percentage of AW relates to one spouse only; the second spouse is assumed to be "inactive" with no earnings in Source: OECD, Tax-Benefit Models. – ¹Initial phase of unemployment but following any waiting period. AW = Average wage. No social assistance "top-ups" are assumed to be available in either the in-work or out-of-work situation. Any income taxes payable on unemployment benefits are determined in relation to annualised benefit values (i.e. monthly values multiplied by 12) even if the maximum benefit duration is shorter than 12 months. See Annex A of OECD a one-earner couple and to have full-time earnings equal to 67% of AW in a two-earner couple. Children are aged 4 and 6 and neither childcare benefits nor childcare costs are considered.

Realised NRR 2 EU at personal level by country and OECD household classification Table A.3.20

			Me	Median in per cent	ınt					Numk	Number of observations	tions		
	Single, no children	Single, 2 children	One-earner One-earner adult couples couples, 2 children	One-earner adult couples, 2 children	Two-earner adult couple	Two-earner adult couple, 2 children	Total	Single, no children	Single, 2 children	One-earner adult couples	One-earner adult couples, 2 children	Two-earner Two-earner adult couple, 2 children	Two-earner adult couple, 2 children	Total
Austria	20	(45)	(55)	1	1	/	20	236	31	33	9	20	4	330
Belgium	62	/	/	_	(51)	_	29	102	9	7	2	36	2	165
Bulgaria	_	/	/	_	_	_	_	4	~	4	~	0	0	10
Czech Republic	(45)	/	/	_	_	_	45	88	4	10	~	9	4	124
Estonia	(22)	/	/	_	_	_	(23)	59	ဇ	7	7	ო	7	46
Spain	61	(64)	(67)	_	(57)	_	09	453	59	36	10	98	12	979
France	48	/	(67)	_	(22)	_	53	129	6	8	17	70	4	273
Greece	(34)	/	/	_	_	_	(31)	4	~	က	0	0	0	45
Italy	22	/	/	_	_	_	27	259	13	12	7	16	~	303
Luxembourg	(104)	/	/	_	(104)	_	104	69	6	13	2	30	7	133
Latvia	_	/	/	_	_	_	(30)	48	4	7	0	∞	~	38
Poland	49	/	/	_	_	_	49	115	7	7	9	7	0	142
Portugal	(73)	/	/	_	_	_	(72)	49	7	7	7	7	0	62
Romania	_	/	/	_	_	_	_	7	0	-	0	0	0	ဧ
Sweden	(83)	/	78	(86)	_	_	80	39	က	119	4	0	0	202
Slovenia	58	_	/	_	(69)	_	09	140	9	15	0	31	7	199
Total	51	28	99	(52)	22	(53)	54	1,774	138	314	98	320	57	2,701

Source: EU-SILC, own calculations. – Notes: NRR 2 = net replacement rate level without family benefits and housing allowances, EU = transition from employment to unemployment, Results in parentheses indicate less than 100 observations and more than 25 observations. Less than 25 observations are marked by /.

Table A.3.21
Estimation results for transitions from unemployment to employment

	Specific	cation 1	Specific	ation 2
	Marg. Effect	t-value	Marg. Effect	t-value
METR	0.0152	1.09	0.0098	0.95
Net equ. household income			0.0058	2.65
Male	0.0151	16.86	0.0124	11.06
Female	Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category
Age 25-54	0.0105	2.70	0.0094	3.58
Age 55-65	-0.0233	-10.59	-0.0213	-14.13
Single	Reference	category	Reference	category
Married living with partner	0.0005	0.29	0.0011	0.48
Not married living with partner	0.0065	2.99	0.0051	1.59
ow skilled (ISCED 0-2)	-0.0043	-1.47	-0.0035	-1.25
Medium skilled (ISCED 3-4)	Reference	category	Reference	category
High skilled (ISCED 5)	0.0072	4.52	0.0047	3.29
Number of children (<= 4) in household	0.0000	0.00	-0.0005	-0.76
Number of children (5-14 years) in household	-0.0003	-0.25	0.0000	-0.01
Number of elderly (>=65 ) in household	-0.0049	-7.47	-0.0040	-4.38
Full-time employed partner in household	0.0020	0.81	0.0009	0.57
Part-time employed partner in household	0.0040	1.11	0.0034	1.04
nactive/unemployed partner in household	Reference	category	Reference	category
Austria	Reference	category	Reference	category
Belgium	-0.0236	-60.28	-0.0206	-28.38
Bulgaria	-0.0124	-3.22	-0.0107	-3.09
Czech Republic	-0.0125	-5.14	-0.0086	-2.45
Estonia	-0.0050	-0.89	-0.0021	-0.42
rance	-0.0001	-0.03	0.0012	0.29
Greece	-0.0185	-16.25	-0.0247	-10.61
aly	-0.0065	-1.69	-0.0133	-5.21
atvia	-0.0204	-7.51	-0.0215	-12.34
uxemburg	-0.0057	-4.02	-0.0044	-3.43
Poland	-0.0052	-1.00	-0.0103	-3.03
Portugal	-0.0150	-4.15	-0.0117	-2.89
Romania	-0.0098	-2.74	-0.0126	-5.33
Slovenia	-0.0225	-18.52	-0.0207	-29.98
Spain	-0.0034	-3.34	-0.0025	-1.70
Sweden	-0.0034	-1.22	-0.0045	-1.21
2004	-0.0031	-1.61	-0.0143	-1.56
2005	-0.0032	-3.03	-0.0063	-2.59
2006	Reference	category	Reference	category
2007	-0.0036	-1.68	-0.0050	-2.08
Pseudo R²	0.04	428	0.05	93
Observations	594,	310	330,9	930

Source: EU-SILC, own calculations. – Notes: Specification 1 without, specification 2 with household income as explanatory variable. Net equivalised household income (calculated as in Hagenaars et al. (1994). Logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. Statistically significant marginal effects and t-values (5 per cent level) are in bold figures.

Table A.3.22
Estimation results for transitions from inactivity to employment

Estimation results for transitions fro	Specific		Specifica	ation 2
	Marg. Effect	t-value	Marg. Effect	t-value
METR	-0.0003	-0.11	-0.0004	-0.18
Net equ. household income			-0.0020	-2.99
Male	0.0042	4.59	0.0041	4.64
Female	Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category
Age 25-54	0.0030	2.67	0.0029	2.43
Age 55-65	-0.0035	-25.55	-0.0035	-41.66
Single	Reference	category	Reference	category
Married living with partner	-0.0004	-1.88	-0.0004	-1.14
Not married living with partner	0.0008	1.70	0.0004	0.70
_ow skilled (ISCED 0-2)	-0.0013	-4.05	-0.0011	-3.23
Medium skilled (ISCED 3-4)	Reference	category	Reference	category
ligh skilled (ISCED 5)	0.0035	8.93	0.0030	9.73
Number of children (<= 4) in household	0.0003	1.24	0.0004	2.42
Number of children (5-14 years) in household	0.0000	-0.30	0.0001	0.99
Number of elderly (>=65 ) in household	-0.0014	-9.96	-0.0012	-11.33
Full-time employed partner in household	-0.0001	-0.52	0.0001	0.57
Part-time employed partner in household	0.0002	0.54	0.0004	1.01
nactive/unemployed partner in household	Reference	category	Reference	category
Austria	Reference	category	Reference	category
Belgium	0.0005	1.45	0.0006	2.13
Bulgaria	0.0036	7.92	0.0020	5.43
Czech Republic	0.0017	8.74	0.0011	4.12
Estonia	0.0020	6.63	0.0018	5.93
rance	0.0000	-0.01	-0.0003	-1.05
Greece	-0.0012	-18.62	-0.0010	
aly	-0.0015	-12.98	-0.0014	-17.35
atvia	0.0010	4.87	0.0007	3.77
Luxemburg	-0.0003	-2.11	-0.0004	-2.79
Poland	0.0040	12.57	0.0018	6.33
Portugal	-0.0003	-1.32	-0.0006	-4.31
Romania	0.0026	5.38	0.0021	4.93
Slovenia	0.0000	-0.30	-0.0009	-3.00
Spain	0.0120	10.44	0.0126	7.22
Sweden	0.0014	3.54	0.0012	4.05
2004	0.0001	0.18	-0.0001	-0.63
2005	0.0000	0.04	0.0002	0.54
2006	Reference	category	Reference	category
2007	-0.0008	-1.95	-0.0006	-1.27
Pseudo R²	0.10	16	0.09	74
Observations	1,084	726	755,3	392

Source: EU-SILC, own calculations. – Notes: Specification 1 without, specification 2 with household income as explanatory variable. Net equivalised household income (calculated as in Hagenaars et al. (1994). Logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. Statistically significant marginal effects and t-values (5 per cent level) are in bold figures.

Table A.3.23
Estimation results for transitions from unemployment to employment, including institutional indicators

	Specific	ation 1	Specific	ation 2
	Marg. Effect	t-value	Marg. Effect	t-value
METR	0.0168	1.46	0.0136	1.48
Net equ. household income			0.0057	2.69
<i>M</i> ale	0.0150	16.03	0.0122	11.17
- Female	Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category
Age 25-54	0.0078	2.10	0.0082	3.07
Age 55-65	-0.0220	-10.27	-0.0198	-10.21
Single	Reference	category	Reference	category
Married living with partner	0.0014	0.78	0.0014	0.65
Not married living with partner	0.0066	3.31	0.0044	1.56
ow skilled (ISCED 0-2)	-0.0042	-1.45	-0.0033	-1.21
Medium skilled (ISCED 3-4)	Reference	category	Reference	category
ligh skilled (ISCED 5)	0.0067	4.43	0.0042	3.02
lumber of children (<= 4) in household	-0.0011	-1.62	-0.0010	-1.41
lumber of children (5-14 years) in household	-0.0012	-0.84	-0.0003	-0.36
lumber of elderly (>=65 ) in household	-0.0055	-7.00	-0.0039	-4.74
ull-time employed partner in household	0.0005	0.23	0.0006	0.40
art-time employed partner in household	0.0032	0.79	0.0037	1.20
nactive/unemployed partner in household	Reference	category	Reference	category
ustria	Reference	category	Reference	category
elgium	-0.0175	-20.39	-0.0117	-18.46
ulgaria	-0.0131	-5.61	-0.0109	-4.38
zech Republic	-0.0149	-11.72	-0.0108	-5.69
stonia	-0.0058	-1.81	-0.0023	-0.60
rance	-0.0003	-0.09	0.0018	0.50
Greece	-0.0157	-11.38	-0.0221	-9.89
aly	-0.0070	-3.19	-0.0131	-6.12
atvia	-0.0204	-12.15	-0.0212	-14.71
uxemburg	-0.0056	-5.13	-0.0049	-2.80
oland	-0.0055	-1.81	-0.0100	-3.74
ortugal	-0.0181	-10.35	-0.0141	-6.07
comania	-0.0018	-0.35	-0.0048	-1.27
lovenia	-0.0225	-31.36	-0.0204	-40.31
pain	-0.0043	-1.62	-0.0036	-1.47
weden	-0.0043	-2.69	-0.0052	-1.92
004	-0.0020	-1.45	-0.0140	-1.53
005	-0.0027	-2.11	-0.0061	-2.62
006	Reference	category	Reference	category
007	-0.0035	-1.72	-0.0049	-2.06
ime limit UI payments < 6 months	0.0338	2.89	0.0342	4.56
ime limit UI payments < 12 months	0.0166	3.30	0.0248	5.24
ime limit UI payments < 24 months	0.0168	5.38	0.0214	8.45
ime limit UI payments > 24 months or non-existent	Reference	category	Reference	category
seudo R²	0.04	143	0.06	808
Observations	594,	310	330,	930

Source: EU-SILC, own calculations. – Notes: Specification 1 without, specification 2 with household income as explanatory variable. Net equivalised household income (calculated as in Hagenaars et al. (1994). Logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. Statistically significant marginal effects and t-values (5 per cent level) are in bold figures. UI: Unemployment insurance.

Table A.3.24
Estimation results for transitions from inactivity to employment, including institutional indicators

	Specification 1		Specification 2	
	Marg. Effect	t-value	Marg. Effect	t-value
METR	0.0004	0.15	0.0002	0.11
Net equ. household income			-0.0025	-2.72
Male	0.0042	4.83	0.0040	5.45
Female	Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category
Age 25-54	0.0025	2.75	0.0024	2.41
Age 55-65	-0.0033	-29.58	-0.0031	-24.50
Single	Reference	category	Reference	category
Married living with partner	-0.0002	-1.19	-0.0002	-0.62
Not married living with partner	0.0009	1.76	0.0004	0.90
Low skilled (ISCED 0-2)	-0.0012	-4.09	-0.0010	-3.24
Medium skilled (ISCED 3-4)	Reference	category	Reference	category
High skilled (ISCED 5)	0.0033	8.61	0.0027	8.71
Number of children (<= 4) in household	0.0001	0.51	0.0003	1.48
Number of children (5-14 years) in household	-0.0001	-1.10	0.0000	0.11
Number of elderly (>=65 ) in household	-0.0014	-8.72	-0.0011	-10.50
Full-time employed partner in household	-0.0002	-2.79	0.0001	0.32
Part-time employed partner in household	0.0002	0.43	0.0004	1.37
Inactive/unemployed partner in household	Reference	category	Reference	category
Austria	Reference	category	Reference	category
Belgium	0.0048	4.01	0.0080	2.19
Bulgaria	0.0014	2.98	0.0003	2.10
Czech Republic	-0.0001	-0.80	-0.0010	-5.42
Estonia	0.0004	1.54	0.0003	1.25
France	-0.0002	-0.55	-0.0006	-2.58
Greece	-0.0007	-7.95	-0.0005	-3.98
italy	-0.0020	-17.31	-0.0017	-12.92
_atvia	-0.0002	-0.74	-0.0001	-0.40
Luxemburg	-0.0009	-5.87	-0.0008	-3.53
Poland	0.0018	4.50	0.0007	1.85
Portugal	-0.0015	-8.10	-0.0019	-11.56
Romania	0.0070	7.32	0.0062	5.33
Slovenia	-0.0010	-6.35	-0.0014	-8.27
Spain	0.0072	7.68	0.0087	4.63
Sweden	0.0005	1.45	-0.0001	-0.34
2004	0.0001	0.34	-0.0001	-0.62
2005	0.0001	0.26	0.0002	0.62
2006	Reference	category	Reference	category
2007	-0.0007	-2.02	-0.0005	-1.28
Time limit UI payments < 6 months	0.0091	12.13	0.0162	3.40
Time limit UI payments < 12 months	0.0038	14.46	0.0048	4.60
Time limit UI payments < 24 months	0.0033	7.54	0.0049	2.87
Time limit UI payments > 24 months or non-existent	Reference	ce category	Referenc	ce category
Pseudo R²	0.10	39	0.10	25
Observations	1,084	.726	755,3	392

Source: EU-SILC, own calculations. – Notes: Specification 1 without, specification 2 with household income as explanatory variable. Net equivalised household income (calculated as in Hagenaars et al. (1994). Logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. Statistically significant marginal effects and t-values (5 per cent level) are in bold figures. UI: Unemployment insurance.

Table A.3.25
Estimation results for transitions from unemployment to employment by country groups

	CEE		Contin	Continental		Mediterranean	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	
METR	-0.0056	-0.33	-0.0049	-2.02	0.0206	1.28	
Net equ. household income	0.0236	1.78	0.001	2.12	0.0179	2.88	
Male	0.0162	4.96	0.0033	3.38	0.0132	4.88	
Female	Reference	category	Reference	category	Reference	category	
Age 15-24	Reference	category	Reference	category	Reference	category	
Age 25-54	0.0098	4.94	0.0049	2.15	0.0029	1.44	
Age 55-65	-0.0125	-6.68	-0.0081	-1.64	-0.024	-16.02	
Single	Reference	category	Reference	category	Reference	category	
Married living with partner	-0.0016	-1.65	0.002	3.21	0.0008	0.53	
Not married living with partner	-0.0043	-4.95	0.0027	2.79	0.0055	4.05	
Low skilled (ISCED 0-2)	-0.0113	-22.33	-0.003	-2.75	0.0035	2.58	
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference category		
High skilled (ISCED 5)	0.0093	5.48	0.0016	0.63	0.0062	6.57	
Number of children (<= 4) in household	-0.0014	-0.69	-0.0002	-12.50	-0.0001	-0.26	
Number of children (5-14 years) in household	0.0005	0.46	-0.0009	-3.53	0.0009	1.08	
Number of elderly (>= 65) in household	-0.0049	-3.00	0.001	2.50	-0.0056	-17.13	
Full-time employed partner in household	0.0017	0.58	0.0014	1.43	-0.0026	-1.02	
Part-time employed partner in household	0.0044	1.98	0.0000	0.02	0.0048	1.71	
Inactive/unemployed partner in household	Reference	category	Reference	category	Reference category		
2004	-0.0071	-5.64	-0.0171	-5.80	-0.0057	-1.13	
2005	-0.0082	-7.37	-0.0003	-0.82	-0.0097	-1.19	
2006	Reference	category	Reference	category	Reference	category	
2007	0.0003	0.08	0.0001	0.69	-0.0083	-6.41	
Time limit UI payments < 6 months	0.0453	17.66	(Omit	ted)	0.0563	7.08	
Time limit UI payments < 12 months	0.0623	14.04	0.0085	4.84	0.0331	12.89	
Time limit UI payments < 24 months	(Omit	ted)	0.002	4.51	0.0256	33.64	
Time limit UI payments > 24 months or non-existent	Reference	category	Reference	category	Reference	category	
Pseudo R²	0.0	43	0.13	19	0.06	17	
Observations	135,9	61	57,4	70	121,0	80	

Table A.3.26
Estimation results for transitions from inactivity to employment by country groups

Latination results for transitions	CEI		Contin		Mediterr	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
METR	-0.0096	-5.35	0.0061	18.32	0.002	0.90
Net equ. household income	0.0141	2.73	-0.002	-10.15	0.0007	0.34
Male	0.0027	13.64	0.0017	5.31	0.0054	7.37
Female	Reference	category	Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category	Reference	category
Age 25-54	0.0027	7.67	0.0031	9.94	0.0015	1.41
Age 55-65	-0.003	-16.39	-0.0016	-7.51	-0.0034	-50.00
Single	Reference	category	Reference	category	Reference	category
Married living with partner	-0.0014	-3.26	0.0003	4.84	0.0001	0.38
Not married living with partner	-0.0013	-3.63	0.0013	2.68	0.0004	0.73
Low skilled (ISCED 0-2)	-0.0019	-5.15	-0.0011	-5.42	-0.0006	-8.33
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category
High skilled (ISCED 5)	0.0029	3.64	0.0016	5.35	0.0028	4.29
Number of children (<= 4) in household	-0.0002	-0.43	0.0000	0.06	0.0004	2.00
Number of children (5-14 years) in household	0.0003	4.48	0.0000	-0.65	0.0000	-0.81
Number of elderly (>= 65) in household	-0.0015	-5.91	-0.0015	-2.80	-0.0011	-9.24
Full-time employed partner in household	0.0011	3.13	-0.0001	-1.82	-0.0002	-2.41
Part-time employed partner in household	0.0003	0.46	0.0001	0.43	0.0005	4.13
Inactive/unemployed partner in household	Reference	category	Reference	category	Reference	category
2004	-0.0003	-0.48	-0.0002	-2.78	0.0000	0.18
2005	-0.0011	-2.46	0.0001	9.09	0.0005	1.93
2006	Reference	category	Reference	category	Reference	category
2007	0.0003	0.25	-0.0004	-20.00	-0.0008	-28.57
Time limit UI payments < 6 months	0.0058	9.93	(Omit	ted)	0.0104	3.33
Time limit UI payments < 12 months	0.0033	7.84	0.0087	4.12	0.0028	8.78
Time limit UI payments < 24 months	(Omit	ted)	0.0031	8.24	0.0026	7.98
Time limit UI payments > 24 months or non-existent	Reference	category	Reference	category	Reference	category
Pseudo R <sup>2</sup>	0.076	65	0.12	57	0.11	34
Observations	208,5	39	117,7	58	393,8	58

Table A.3.27
Estimation results for transitions from unemployment to employment by country groups, women only

	CEE		Contin	Continental		Mediterranean	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	
METR	0.0229	0.97	-0.0047	-1.41	0.0244	1.15	
Net equ. household income	0.0489	4.64	0.0017	2.72	0.0288	19.46	
Age 15-24	Reference	category	Reference	category	Reference	category	
Age 25-54	0.0079	3.88	0.0031	2.83	0.0024	1.49	
Age 55-65	-0.0147	-17.63	-0.0059	-1.74	-0.0185	-9.14	
Single	Reference	category	Reference	category	Reference	category	
Married living with partner	-0.0112	-3.54	0.0015	3.46	-0.0127	-8.99	
Not married living with partner	-0.0094	-3.89	0.0016	1.08	-0.0089	-5.81	
Low skilled (ISCED 0-2)	-0.0133	-24.72	-0.004	-3.10	0.0018	1.01	
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category	
High skilled (ISCED 5)	0.0086	7.49	0.0017	0.79	0.0075	5.32	
Number of children (<= 4) in household	-0.0074	-14.77	-0.0022	-6.47	-0.0042	-3.81	
Number of children (5-14 years) in household	-0.0003	-0.48	-0.0011	-3.87	0.0012	1.09	
Number of elderly (>= 65) in household	-0.0001	-0.08	-0.0006	-0.34	-0.0023	-1.62	
Full-time employed partner in household	0.0042	3.74	0.0014	1.86	0.0042	1.44	
Part-time employed partner in household	0.0019	0.45	-0.001	-1.81	0.0062	2.19	
Inactive/unemployed partner in household	Reference	category	Reference	category	Reference	category	
2004	-0.0097	-17.64	-0.0115	-5.16	-0.0058	-1.71	
2005	-0.0062	-4.92	0.0000	-0.12	-0.0098	-1.72	
2006	Reference	category	Reference	category	Reference category		
2007	-0.0011	-0.34	0.0005	2.44	-0.0024	-2.88	
Time limit UI payments < 6 months	0.0363	20.47	(omitt	ted)	0.0475	15.32	
Time limit UI payments < 12 months	0.0541	12.37	0.0002	0.12	0.0277	43.35	
Time limit UI payments < 24 months	(omit	ted)	0.0018	5.61	0.0191	32.65	
Time limit UI payments > 24 months or non-existent	Reference	category	Reference	category	Reference	category	
Pseudo R²	0.05	14	0.14	59	0.06	26	
Observations	72,3	50	30,5	89	69,5	75	

Table A.3.28
Estimation results for transitions from unemployment to employment by country groups, men only

groups, men only	CEE		Contin	ental	Mediterranean	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
METR	-0.0642	-2.36	-0.0055	-3.29	0.0109	0.50
Net equ. household income	0.0174	2.01	0.0011	1.88	0.0162	2.71
Age 15-24	Reference	category	Reference	category	Reference	category
Age 25-54	0.0126	6.30	0.0067	2.15	0.0045	1.83
Age 55-65	-0.0136	-5.67	-0.0103	-1.48	-0.0303	-11.74
Single	Reference	category	Reference	category	Reference	category
Married living with partner	0.0087	2.29	0.0025	2.00	0.0135	2.66
Not married living with partner	0.0014	0.27	0.0037	4.24	0.0213	6.48
Low skilled (ISCED 0-2)	-0.0087	-5.51	-0.0021	-2.50	0.0052	3.18
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category
High skilled (ISCED 5)	0.0046	1.59	0.0012	0.52	0.0023	1.04
Number of children (<= 4) in household	0.0054	1.57	0.002	4.99	0.0042	13.33
Number of children (5-14 years) in household	0.0001	0.07	-0.001	-3.44	0	0.00
Number of elderly (>= 65) in household	-0.0078	-5.25	0.0022	1.57	-0.0076	-8.97
Full-time employed partner in household	0.0025	0.45	0.0028	1.79	-0.0025	-0.73
Part-time employed partner in household	0.0053	1.67	-0.0002	-0.08	0.0023	0.79
Inactive/unemployed partner in household	Reference	category	Reference	Reference category		category
2004	-0.0055	-4.04	-0.0225	-6.16	-0.0047	-0.72
2005	-0.0095	-5.66	-0.0009	-1.76	-0.0088	-0.86
2006	Reference	category	Reference	category	Reference	category
2007	0.002	0.54	-0.0006	-1.47	-0.0125	-7.31
Time limit UI payments < 6 months	0.0532	13.01	(omit	ted)	0.0671	6.96
Time limit UI payments < 12 months	0.0604	9.00	0.0148	9.70	0.0404	12.42
Time limit UI payments < 24 months	(omitt	ed)	0.0028	14.89	0.0319	33.30
Time limit UI payments > 24 months or non-existent	Reference	category	Reference	category	Reference	category
Pseudo R²	0.04	43	0.12	98	0.06	55
Observations	63,6	11	26,8	81	51,5	05

Table A.3.29
Estimation results for transitions from inactivity to employment by country groups, women only

women only	CEI	E	Contin	ental	Mediterr	anean
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
METR	-0.0022	-2.10	0.013	3.58	-0.0005	-0.22
Net equ. household income	0.0111	2.28	-0.0014	-5.15	-0.002	-0.42
Age 15-24	Reference	category	Reference	category	Reference	category
Age 25-54	0.0012	3.68	0.0021	8.14	0.0009	1.42
Age 55-65	-0.0026	-19.85	-0.0014	-3.51	-0.0027	-27.55
Single	Reference	category	Reference	category	Reference	category
Married living with partner	-0.0035	-8.18	0.0000	-0.05	-0.0015	-9.26
Not married living with partner	-0.0017	-6.18	0.001	6.25	-0.0007	-10.14
Low skilled (ISCED 0-2)	-0.0012	-2.37	-0.001	•	-0.001	-13.16
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category
High skilled (ISCED 5)	0.0024	2.55	0.0017	2.85	0.003	9.74
Number of children (<= 4) in household	-0.0001	-0.26	0.0000	0.21	0.0002	1.02
Number of children (5-14 years) in household	-0.0001	-1.10	0.0000	-1.07	-0.0003	-2.80
Number of elderly (>= 65) in household	-0.0011	-2.71	-0.002	-1.22	-0.0004	-4.60
Full-time employed partner in household	0.0019	6.74	-0.0003	-5.00	0.0003	1.94
Part-time employed partner in household	-0.0001	-0.10	-0.0004	-12.50	-0.0003	-2.16
Inactive/unemployed partner in household	Reference	category	Reference	category	Reference category	
2004	0.0000	-0.05	-0.0005	-17.24	-0.0001	-0.81
2005	-0.001	-2.83	0.0000	1.64	0.0002	1.45
2006	Reference	category	Reference	category	Reference	category
2007	-0.0004	-0.39	-0.0003	-16.67	-0.0005	-3.52
Time limit UI payments < 6 months	0.0036	7.84	(omitt	ted)	0.0034	1.46
Time limit UI payments < 12 months	0.0016	2.79	0.0239	1.71	0.0014	4.06
Time limit UI payments < 24 months	(omitt	ted)	0.002	3.14	0.0023	6.42
Time limit UI payments > 24 months or non-existent	Reference	category	Reference	category	Reference	category
Pseudo R²	0.0	772	0.1	103	0.0	911
Observations	135,	869	100,	740	339,	769

Table A.3.30 Estimation results for transitions from inactivity to employment by country groups, men only

-	CE	Ē	Contin	ental	Mediterr	anean
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
METR	-0.0171	-3.17	-0.0098	-2.74	0.0231	2.00
Net equ. household income	0.0155	1.60	-0.0047	-2.73	0.0116	3.26
Age 15-24	Reference	category	Reference	category	Reference	category
Age 25-54	0.0064	3.15	0.0057	18.39	0.0046	1.75
Age 55-65	-0.0037	-8.55	-0.0024	-6.28	-0.0097	-10.66
Single	Reference	category	Reference	category	Reference	category
Married living with partner	0.0015	1.59	0.0009	0.98	0.0053	5.00
Not married living with partner	-0.0009	-1.12	0.0013	0.73	0.0054	1.38
Low skilled (ISCED 0-2)	-0.0025	-6.70	-0.0012	-21.82	0.0006	1.40
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category
High skilled (ISCED 5)	0.0035	2.07	0.0012	13.79	0.0023	1.35
Number of children (<= 4) in household	-0.0001	-0.15	-0.0002	-1.98	0.0011	2.55
Number of children (5-14 years) in household	0.0007	3.61	-0.0001	-0.46	0.0008	2.90
Number of elderly (>= 65) in household	-0.0013	-2.73	-0.0014	-10.53	-0.003	-4.52
Full-time employed partner in household	0.0000	-0.06	0.0016	1.94	-0.0013	-3.00
Part-time employed partner in household	0.0005	1.39	0.001	4.03	0.0005	0.84
Inactive/unemployed partner in household	Reference	category	Reference	category	Reference	category
2004	-0.0009	-1.37	0.0004	1.37	0.0005	0.68
2005	-0.0011	-1.67	0.0002	1.55	0.0019	1.73
2006	Reference	category	Reference	category	Reference	category
2007	0.0013	0.93	-0.0005	-7.58	-0.0026	-5.88
Time limit UI payments < 6 months	0.012	7.21	(omitt	ted)	0.0727	3.17
Time limit UI payments < 12 months	0.0053	18.34	0.033	2.17	0.0132	7.32
Time limit UI payments < 24 months	(omitt	ed)	0.0092	2.74	0.0067	2.89
Time limit UI payments > 24 months or non-existent	Reference	category	Reference	category	Reference	category
Pseudo R²	0.09	81	0.11	84	0.16	19
Observations	72,6	70	54,0	89	17,0	18

Table A.3.31
Estimation results for the probability of receiving unemployment benefits, all unemployed workers

	All unem	All unemployed		mployed
	Marg. Effect	t-value	Marg. Effect	t-value
Male	0.0059	9.08	0.0004	0.02
- Female	Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category
Age 25-54	-0.0031	-3.28	-0.1645	-6.91
Single	Reference	category	Reference	category
Married living with partner	0.0191	21.68	0.1789	7.13
Not married living with partner	0.0044	3.24	0.1170	3.80
ow skilled (ISCED 0-2)	-0.0063	-8.27	-0.0142	-0.70
Medium skilled (ISCED 3-4)	Reference	category	Reference	category
ligh skilled (ISCED 5)	0.0136	16.31	-0.0110	-0.42
Number of children (<= 4) in household	-0.0049	-6.84	0.0132	0.78
lumber of children (5-14 years) in household	-0.0036	-7.32	-0.0372	-3.06
Number of elderly (>=65 ) in household	-0.0013	-1.74	-0.0207	-1.07
Full-time employed partner in household	0.0004	0.44	-0.0548	-2.28
Part-time employed partner in household	0.0149	9.54	0.0256	0.50
nactive/unemployed partner in household	Reference	category	Reference	category
Austria	Reference	category	Reference	category
Belgium	0.0005	0.15	-0.0119	-0.18
Bulgaria	-0.4557	-20.96	-0.6555	-69.63
Czech Republic	-0.1594	-10.86	-0.2383	-4.37
Estonia	-0.1503	-10.10	-0.6032	-55.07
rance	-0.0534	-8.46	-0.2144	-4.23
Greece	-0.0455	-6.11	-0.4871	-15.94
aly	-0.0805	-11.89	-0.3448	-7.75
atvia	-0.0843	-8.03	-0.5670	-33.32
uxemburg	-0.0425	-4.91	-0.4224	-10.28
Poland	-0.2359	-16.52	-0.6437	-35.99
Portugal	-0.0700	-7.82	-0.5360	-21.67
Romania	-0.0793	-7.84	-0.5473	-17.94
Blovenia	-0.0817	-9.39	-0.4951	-21.01
Spain	-0.1417	-13.53	-0.4909	-14.15
Sweden	-0.0299	-4.79	-0.3812	-8.09
2004	0.0076	13.50	0.0519	1.95
2005	0.0025	6.02	-0.0038	-0.19
2006	Reference	category	Reference	category
2007	0.0085	16.80	0.0683	3.27
Pseudo R²		0805		1888
Observations	8,466			,750
ADDITIONAL EXPLANATORIES				
ime limit UI payments < 6 months	-0.0489	-6.43	-0.3732	-4.79
ime limit UI payments < 12 months	-0.0363	-9.40	-0.2255	-2.69
ime limit UI payments < 24 months	-0.0122	-3.79	-0.0886	-1.25
Fime limit UI payments > 24 months or non-existen			Reference	
Pseudo R²		0825		1966
Dbservations	8,466			,750

Source: EU-SILC, own calculations. – Notes: Logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. Statistically significant marginal effects and t-values (5 per cent level) are in bold figures. UI: Unemployment insurance.

Table A.3.32
Estimation results for the net replacement rate of unemployed workers receiving unemployment benefits

	Coefficient	t-value
Male	-0.0363	-1.29
Female	Reference	category
Age 15-24	Reference	category
Age 25-54	0.0621	1.50
Single	Reference	category
Married living with partner	0.0496	1.29
Not married living with partner	-0.0097	-0.19
Low skilled (ISCED 0-2)	-0.0170	-0.51
Medium skilled (ISCED 3-4)	Reference	category
High skilled (ISCED 5)	-0.0741	-2.04
Number of children (<= 4) in household	-0.0221	-0.87
Number of children (5-14 years) in household	0.0673	1.80
Number of elderly (>=65 ) in household	0.0101	0.38
Full-time employed partner in household	0.0101	0.26
Part-time employed partner in household	-0.0298	-0.53
Inactive/unemployed partner in household	Reference	category
Austria	Reference	category
Belgium	0.2009	4.23
Bulgaria	0.0276	0.33
Czech Republic	-0.0919	-2.82
Estonia	0.1542	1.48
France	0.1909	3.97
Greece	-0.1725	-4.06
Italy	-0.0019	-0.05
Latvia	-0.1661	-3.24
Luxemburg	0.4276	12.22
Poland	0.0504	1.56
Portugal	0.1994	3.46
Romania	0.3441	3.19
Slovenia	0.1104	2.86
Spain	0.1502	4.56
Sweden	0.4670	6.00
2004	-0.0224	-0.44
2005	-0.0722	-2.10
2006	Reference	category
2007	-0.0272	-0.73
R <sup>2</sup>	0.042	23
Observations	6,52	22

Source: EU-SILC, own calculations. – Notes: OLS regression; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. Statistically significant coefficients and t-values (5 per cent level) are in bold figures. UI: Unemployment insurance.

Table A.4.1 **Share of part-time employment by gender**in per cent of total employment

	Total	Female	Male
Austria	19.7	38.2	4.4
Belgium	24.3	44.0	7.4
Bulgaria	3.4	4.4	2.5
Cyprus	5.7	9.3	2.5
Czech Republic	4.1	7.0	1.7
Germany	31.4	54.1	9.0
Denmark	13.5	22.6	4.9
Estonia	5.5	7.7	3.1
Spain	9.1	21.5	3.2
Finland	10.7	14.7	6.5
France	18.6	31.8	5.7
Greece	8.6	14.8	4.2
Hungary	5.3	7.3	3.3
Ireland	22.6	38.2	7.8
Italy	12.0	22.1	4.3
Lithuania	4.2	5.5	3.0
Luxembourg	14.3	31.4	2.1
Latvia	4.5	6.5	2.5
Netherlands	40.6	72.9	14.4
Norway	12.3	22.1	3.2
Poland	7.0	9.8	4.5
Portugal	5.9	9.6	2.5
Romania	0.6	0.8	0.5
Sweden	20.9	34.1	8.5
Slovenia	3.4	4.8	2.2
Slovakia	3.4	5.3	1.5
United Kingdom	21.6	36.6	6.0
EU-SILC	15.7	28.1	5.2

Table A.4.2 Real weekly working hours by gender (employed individuals)

-	Total	Female	Male
Austria	33.1	41.0	37.4
Belgium	32.2	40.1	36.4
Bulgaria	41.2	42.8	42.0
Cyprus	38.2	42.9	40.7
Czech Republic	39.9	43.3	41.7
Germany	29.4	39.5	34.5
Denmark	35.4	39.1	37.3
Estonia	38.8	41.0	39.9
Spain	35.8	41.8	39.9
Finland	36.0	39.1	37.5
France	33.5	39.3	36.5
Greece	36.5	40.9	39.1
Hungary	39.6	41.6	40.6
Ireland	30.1	39.4	34.8
Italy	34.3	40.6	37.9
Lithuania	38.5	40.5	39.5
Luxembourg	34.0	42.2	38.8
Latvia	40.3	43.7	42.0
Netherlands	26.8	37.2	32.5
Norway	34.0	39.9	37.1
Poland	38.3	42.8	40.7
Portugal	37.8	41.7	39.8
Romania	41.1	42.2	41.7
Sweden	34.5	38.7	36.7
Slovenia	40.3	41.8	41.1
Slovakia	39.6	42.6	41.1
United Kingdom	33.2	43.1	38.0
EU-SILC	34.5	40.9	37.9

Table A.4.3

Share of full-time employment in year t by gender of individuals who changed from part-time to full-time employment from year t-2 to year t-1 in per cent

	Total	Female	Male
Austria	64.4	58.5	80.9
Belgium	68.6	59.6	84.3
Bulgaria	100.0	100.0	100.0
Cyprus	87.8	83.2	100.0
Czech Republic	91.8	91.5	92.5
Denmark	59.1	58.1	62.7
Estonia	87.6	85.8	97.6
Spain	80.7	74.8	91.1
Finland	90.4	94.4	82.8
France	91.6	90.4	94.7
Greece	91.9	90.6	93.0
Hungary	85.2	82.3	92.1
Ireland	72.9	70.3	82.1
Italy	73.8	68.2	86.9
Lithuania	79.1	81.3	76.3
Luxembourg	89.7	87.8	96.2
Latvia	82.9	82.0	84.6
Netherlands	72.6	71.9	73.3
Norway	72.6	73.1	70.1
Poland	91.0	90.6	91.7
Portugal	95.7	98.6	91.8
Sweden	70.7	68.3	76.4
Slovenia	86.5	89.6	77.4
Slovakia	91.8	86.2	100.0
United Kingdom	66.8	60.7	84.6
EU-SILC	78.9	75.3	86.9

Table A.4.4 **Share of temporary employment by gender**in per cent of total employment

in per cent of total emp	Total	Female	Male
Austria	6.9	7.4	6.5
Belgium	10.3	13.0	8.0
Bulgaria	11.9	12.7	11.2
Cyprus	11.9	16.5	7.8
Czech Republic	14.3	16.0	12.8
Germany	13.5	13.8	13.2
Estonia	2.5	2.0	3.1
Spain	27.3	31.5	25.4
Finland	15.8	19.1	12.3
France	14.1	15.9	12.4
Greece	23.3	26.8	20.8
Hungary	9.7	9.3	10.1
Ireland	8.5	10.7	6.4
Italy	13.9	16.2	12.1
Lithuania	7.2	5.9	8.6
Luxembourg	8.3	9.8	7.3
Latvia	7.2	5.3	9.1
Netherlands	13.5	15.3	12.1
Norway	10.3	12.1	8.6
Poland	27.3	26.0	28.5
Portugal	19.8	20.0	19.6
Romania	3.7	3.5	3.8
Sweden	9.9	10.9	8.9
Slovenia	13.2	14.3	12.3
Slovakia	12.3	12.6	12.1
United Kingdom	4.5	4.8	4.3
EU-SILC	14.6	15.3	14.1

Table A.4.5 **Estimation results: Two-year transitions from temporary to permanent employment** 

	Total	Female	Male
Austria	86.0	87.7	84.3
Belgium	93.4	90.9	96.1
Bulgaria	87.3	88.2	85.8
Cyprus	80.9	73.4	88.2
Czech Republic	87.2	88.1	86.4
Estonia	100.0	100.0	100.0
Spain	79.3	81.2	78.3
Finland	92.2	88.5	100.0
France	94.6	95.4	94.0
Greece	83.9	75.3	89.0
Hungary	85.1	91.8	78.4
Ireland	91.9	93.1	90.2
Italy	91.5	91.1	91.8
Lithuania	91.6	97.4	86.8
Luxembourg	93.0	92.9	93.1
Latvia	90.0	97.7	84.5
Netherlands	88.9	87.5	90.4
Norway	85.6	84.0	87.5
Poland	88.6	88.4	88.7
Portugal	87.0	89.2	85.4
Slovenia	92.1	92.7	91.6
Sweden	77.0	74.1	79.9
Slovakia	82.8	80.4	84.9
United Kingdom	90.1	89.3	90.9
EU-SILC	86.6	87.4	86.0

Table A.4.6
Employment status by country in per cent total employment

	Full-time, permanent	Full-time, temporary	Part-time, permanent	Part-time, temporary
Austria	74.3	5.4	18.8	1.5
Belgium	68.9	6.1	21.0	3.9
Bulgaria	88.6	6.8	3.2	1.5
Cyprus	84.6	9.5	4.0	1.8
Czech Republic	83.4	12.8	2.2	1.7
Germany	54.1	7.9	31.9	6.1
Estonia	93.0	1.8	4.9	0.3
Spain	67.8	22.8	4.4	5.0
Finland	75.8	13.0	7.0	4.1
France	71.5	10.2	12.9	5.4
Greece	74.2	17.3	3.1	5.5
Hungary	85.8	9.2	3.6	1.5
Ireland	73.0	3.5	18.4	5.0
Italy	77.8	10.1	8.7	3.4
Lithuania	90.2	6.3	2.9	0.6
Luxembourg	78.5	6.9	13.3	1.2
Latvia	90.4	5.1	3.4	1.1
Netherlands	49.8	7.7	36.2	6.2
Norway	79.0	8.2	10.8	2.0
Poland	69.3	23.6	2.7	4.4
Portugal	76.4	17.6	3.1	2.9
Romania	96.1	3.3	0.4	0.2
Sweden	73.0	6.0	17.4	3.6
Slovenia	84.1	12.5	2.4	1.0
Slovakia	86.5	10.1	2.3	1.0
United Kingdom	74.3	2.4	21.6	1.8
EU-SILC	72.0	12.1	12.0	3.9

Table A.4.7
Regression results: Transitions from full-time to part-time employment

	A		•	men		en
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
BASELINE SPECIFICATION						
Male	-0.037	-10.70				
Female	Referenc	e category	Referen	ce category	Reference	ce category
Age 15-24	Referenc	e category	Referen	ce category	Reference	ce category
Age 25-54	-0.010	-3.56	-0.016	-2.28	-0.009	-4.64
Age 55-65	0.005	0.61	0.004	0.26	0.005	1.23
Single	Referenc	e category	Referen	ce category	Reference	ce category
Married living with partner	-0.004	-0.94	0.004	0.50	-0.005	-2.25
Not married living with partner	-0.002	-0.76	0.003	0.62	0.000	-0.14
ow skilled (ISCED 0-2)	0.004	1.75	0.008	1.82	0.003	1.93
Medium skilled (ISCED 3-4)	Referenc	e category	Referen	ce category	Reference	ce category
ligh skilled (ISCED 5)	-0.004	-3.17	-0.013	-4.92	0.001	1.28
Number of children (<= 4) in household	0.008	6.66	0.027	10.79	-0.001	-0.81
Number of children (5-14 years) in household	0.002	2.05	0.007	2.54	-0.001	-2.10
Number of elderly (>=65) in household	0.001	0.50	0.000	0.07	0.001	0.58
Full-time employed partner in household	0.006	2.62	0.006	1.30	0.000	0.08
Part-time employed partner in household	0.001	0.67	0.003	0.59	0.003	1.52
nactive/unemployed partner in household	Referenc	e category	Referen	ce category	Reference	ce category
 Austria	Referenc	e category	Referen	ce category	Reference	ce category
Belgium	0.003	2.92	0.006	2.02	0.000	0.00
Bulgaria	-0.009	-10.17	-0.025	-20.42	-0.001	-2.20
Cyprus	-0.015	-21.89	-0.033	-140.93	-0.007	-18.88
Zech Republic	-0.017	-25.07	-0.037	-83.82	-0.010	-23.33
Denmark	-0.003	-3.36	-0.008	-4.19	-0.002	-2.92
Estonia	-0.014	-22.12	-0.031	-45.78	-0.007	-30.08
Finland	-0.010	-13.73	-0.025	-23.50	-0.003	-11.58
France	-0.012	-22.12	-0.025	-29.00	-0.006	-19.75
Sermany	0.005	1.96	0.008	2.03	0.002	1.15
Greece	-0.008	-26.11	-0.025	-39.55	0.000	0.00
lungary	-0.014	-23.61	-0.034	-103.65	-0.005	-13.29
reland	-0.005	-8.02	-0.013	-8.76	-0.004	-10.43
aly	-0.008	-18.22	-0.019	-30.52	-0.003	-7.69
atvia	-0.013	-20.64	-0.030	-57.06	-0.005	-22.51
ithuania	-0.014	-20.86	-0.033	-90.91	-0.005	-20.50
uxembourg	0.005	9.46	0.024	11.32	-0.005	-13.12
letherlands	0.008	5.82	0.029	8.93	0.000	0.40
lorway	-0.002	-2.17	-0.005	-1.69	-0.003	-8.47
Poland	-0.015	-22.50	-0.035	-80.05	-0.006	-15.44
Portugal	-0.018	-23.84	-0.040	-73.80	-0.009	-15.93
Romania	-0.019	-25.84	-0.043	-63.57	-0.010	-20.12
Blovakia	-0.016	-26.20	-0.037	-99.19	-0.009	-22.69
Slovenia	-0.015	-22.94	-0.034	-96.03	-0.007	-18.18
Spain	-0.007	-10.55	-0.008	-5.95	-0.007	-14.88
Sweden	-0.001	-0.49	-0.003	-0.69	-0.001	-1.20
United Kingdom	-0.001	-1.36	0.003	1.11	-0.001	-11.20

Table A.4.7, continued

	Al	I	Wor	nen	Me	n
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
2005	-0.002	-0.85	-0.002	-0.57	-0.003	-1.70
2006	Reference	e category	Referenc	e category	Reference	e category
2007	-0.001	-0.94	-0.002	-0.79	-0.001	-0.70
2008	-0.002	-1.00	-0.001	-0.42	-0.002	-1.35
Pseudo-R²	0.	0958	0.	.0692	0.	0532
Observations	252	2,178	10	5,963	146	5,215
ADDITIONAL EXPLANATORIES						
Work experience	0.000	-3.03	-0.001	-1.97	0.000	-1.02
Work experience squared	0.000	0.00	0.000	0.00	0.000	0.00
Health problems	0.004	3.50	0.008	2.84	0.003	3.56
Densely Populated	0.000	0.36	0.001	0.35	0.000	0.21
Intermediate	Reference	e category	Referenc	e category	Reference	e category
Thinly Populated	-0.001	-1.08	-0.002	-0.63	0.000	-0.80
Real hourly wage	-0.002	-15.74	-0.004	-10.67	-0.001	-7.20
Legislators, Senior officials and Managers	Reference	e category	Referenc	e category	Reference	e category
Professionals	0.007	1.53	0.001	0.12	0.012	2.16
Technicians and Associate Professionals	0.003	0.70	0.003	0.30	0.003	1.06
Clerks	-0.001	-0.20	-0.007	-1.01	0.003	0.89
Service workers and shop and market sales workers	0.008	1.63	0.008	0.82	0.010	2.00
Skilled agricultural and fishery workers	0.003	0.40	0.004	0.17	0.005	0.98
Craft and related trades workers	-0.004	-1.20	-0.008	-1.02	-0.001	-0.24
Plant and machine operators and assemblers	-0.004	-1.39	-0.013	-1.70	0.000	-0.15
Elementary occupations	0.008	1.62	0.013	0.94	0.005	1.75
Pseudo-R²	0.	1397	0.	.1112	0.	1174
Observations	188	3,254	8	0,461	107	7,793

Source: EU-SILC, own calculations. – Notes: Logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. For the explanation of the additional explanatories see section 4.1.

Table A.4.8 Regression results: Transitions from full-time to part-time employment by country group

	Contir	Continental	Scandi	Scandinavian	Mediter	Mediterranean	CEE		UK and	UK and Ireland
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
BASELINE SPECIFICATION										
Male	-0.044	-6.62	-0.046	-10.42	-0.043	-9.35	-0.009	-8.70	-0.083	-32.68
Female	Reference category	category	Reference category	category	Reference	Reference category	Reference	Reference category	Reference	Reference category
Age 15-24	Reference category	category	Reference category	category	Reference	Reference category	Reference category	e category	Reference	Reference category
Age 25-54	-0.010	-1.85	-0.044	-2.35	-0.005	-3.43	-0.009	-3.24	-0.030	-10.46
Age 55-65	0.042	1.26	-0.011	-1.45	-0.008	-7.16	0.002	0.97	-0.005	-50.00
Single	Reference category	category	Reference category	category	Reference category	category	Reference category	e category	Reference	Reference category
Married living with partner	-0.009	-2.17	0.002	0.32	-0.008	-2.57	0.000	0.08	0.020	7.19
Not married living with partner	-0.003	-1.72	-0.004	-0.63	-0.004	-1.15	0.002	1.08	0.010	2.43
Low skilled (ISCED 0-2)	0.000	-0.11	0.003	1.36	0.008	2.43	0.003	2.71	0.004	1.17
Medium skilled (ISCED 3-4)	Reference category	category	Reference category	category	Reference category	e category	Reference category	e category	Reference	Reference category
High skilled (ISCED 5)	-0.001	-0.38	-0.007	-1.39	-0.005	-8.27	-0.003	-6.39	-0.006	-26.85
Number of children $(<=4)$ in household	0.013	3.93	0.012	2.17	0.007	2.90	0.001	1.97	0.013	8.36
Number of children (5-14 years) in household	0.003	2.14	0.004	3.03	-0.001	-0.27	0.001	1.68	0.005	14.94
Number of elderly (>=65) in household	0.008	2.18	-0.004	-0.52	-0.001	-0.73	-0.001	-1.40	-0.001	-7.14
Full-time employed partner in household	0.021	2.73	0.003	0.68	0.005	4.15	0.000	-0.36	-0.001	-0.58
Part-time employed partner in household	0.006	1.01	-0.007	-2.27	-0.003	-1.56	0.002	0.95	0.003	2.57
Inactive/unemployed partner in household	Reference category	category	Reference category	category	Reference	Reference category	Reference	Reference category	Reference	Reference category
Austria	Reference category	category								
Belgium	0.000	0.37								
France	-0.022	-19.91								
Germany	0.007	1.66								
Luxembourg	0.006	3.96								
Netherlands	0.010	4.90								
Sweden			Reference category	category						
Denmark			-0.005	-1.31						
Finland			-0.021	-10.84						
Norway			-0.005	-2.00						

Table A.4.8, continued

		3	Scaridiraviari	aviai	Mediterranean	ranean	SE	Ш	UK and	UK and Ireland
N	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
Spain					Reference category	category				
Cyprus					-0.012	-7.68				
Greece					-0.003	-6.87				
Italy					-0.003	-7.75				
Portugal					-0.017	-8.18				
Czech Republic							Reference	Reference category		
Bulgaria							0.024	6.13		
Estonia							0.005	3.35		
Hungary							0.007	4.79		
Latvia							0.011	2.07		
Lithuania							0.008	4.46		
Poland							0.007	60.9		
Romania							-0.008	-10.22		
Slovakia							0.001	0.57		
United Kingdom									Referenc	Reference category
Ireland									-0.008	-47.65
2005	0.002	99.0	-0.005	-1.03	-0.005	-1.77	0.004	3.62	0.005	19.22
2006	Reference category	ategory	Reference category	category	Reference category	category	Reference	Reference category	Referenc	Reference category
2007	0.000	-0.18	-0.008	-1.43	-0.003	-1.26	0.000	0.00	0.001	1.71
2008	0.002	0.34	-0.003	-0.58	-0.004	-1.58	-0.001	-1.40	-0.007	-11.04
Pseudo-R²	0.1017	2	0.0771	11	0.0901	101	0.0	0.058	0.1	0.1204
Observations	51,585	5	21,673	73	72,912	112	94,	94,751	11	11,257

Source: EU-SILC, own calculations. – Notes: Definition of country groups as on page 75. – Logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.4.9

Regression results: Monthly transitions from full-time to part-time employment

regression results. Monthly	Al		Wor		Mei	
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
BASELINE SPECIFICATION						
Male	-0.001	-9.34				
Female	Reference	category	Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category	Reference	category
Age 25-54	-0.001	-2.83	-0.001	-2.49	0.000	-2.21
Age 55-65	0.000	-1.34	0.000	-2.59	0.000	0.85
Single	Reference	category	Reference	category	Reference	category
Married living with partner	0.000	-0.95	0.000	1.44	0.000	-3.19
Not married living with partner	0.000	-0.56	0.000	1.83	0.000	-0.98
Low skilled (ISCED 0-2)	0.000	1.49	0.000	1.30	0.000	0.86
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category
High skilled (ISCED 5)	0.000	-1.44	0.000	-3.21	0.000	0.93
Number of children (<= 4) in household	0.000	3.23	0.001	4.00	0.000	0.06
Number of children (5-14 years) in household	0.000	2.28	0.000	2.95	0.000	0.31
Number of elderly (>=65) in household	0.000	0.87	0.000	0.26	0.000	1.26
Full-time employed partner in household	0.000	0.92	0.000	-0.23	0.000	-3.23
Part-time employed partner in household	0.000	0.68	0.001	2.22	0.000	1.82
Inactive/unemployed partner in household	Reference	category	Reference	category	Reference	category
Austria	Reference	category	Reference	category	Reference	category
Belgium	0.000	6.10	0.000	3.04	0.000	7.73
Bulgaria	0.000	-8.98	-0.001	-8.39	0.000	0.98
Cyprus	-0.001	-10.29	-0.001	-8.60	0.000	-9.89
Czech Republic	-0.001	-11.00	-0.001	-9.21	0.000	-13.14
Denmark	0.000	-5.40	0.000	-5.37	0.000	-10.06
Estonia	0.000	-10.70	-0.001	-8.81	0.000	-9.24
Finland	0.000	1.75	0.000	-4.59	0.000	9.55
France	0.000	-8.96	-0.001	-8.08	0.000	-7.73
Germany	0.000	-6.42	-0.001	-4.82	0.000	-9.21
Greece	0.000	-9.80	-0.001	-8.86	0.000	-3.17
Hungary	0.000	-10.17	-0.001	-8.90	0.000	12.56
Ireland	0.000	-11.59	-0.001	-9.99	0.000	2.67
Italy	0.000	-10.31	-0.001	-7.80	0.000	-8.69
Latvia	0.000	-10.32	-0.001	-8.64	0.000	-8.20
Lithuania	0.000	-10.08	-0.001	-8.66	0.000	1.66
Luxembourg	0.000	2.95	0.001	3.88	0.000	-16.27
Netherlands	0.000	-2.04	0.000	-0.62	0.000	-0.07
Norway	0.000	5.42	0.000	3.67	0.000	5.45
Poland	-0.001	-10.13	-0.001	-8.36	0.000	-11.73
Portugal	-0.001	-11.57	-0.001	-9.40	0.000	-10.12
Romania	-0.001	-10.23	-	-	0.000	-9.90
Slovakia	-0.001	-10.88	-0.001	-8.99	0.000	-12.98
Slovenia	-0.001	-10.78	-0.001	-8.86	0.000	-12.91
Spain	0.000	-6.41	0.000	-5.82	0.000	1.98
Sweden	0.001	10.43	0.002	10.13	0.001	10.62
United Kingdom	0.001	9.34	0.001	9.03	0.001	9.56

Table A.4.9, continued

	Al	l	Won	nen	Me	n
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
2003	0.000	-1.88	-0.001	-2.25	0.000	-0.94
2004	0.000	0.38	0.000	0.16	0.000	0.69
2005	Reference	category	Reference	category	Reference	category
2006	0.000	1.09	0.000	0.26	0.000	2.17
2007	0.000	0.97	0.000	0.86	0.000	1.08
January	Reference	category	Reference	category	Reference	category
February	-0.001	-16.54	-0.002	-13.75	-0.001	-18.36
March	-0.001	-18.03	-0.002	-16.04	-0.001	-21.09
April	-0.001	-17.71	-0.002	-15.46	-0.001	-16.27
May	-0.001	-20.26	-0.002	-16.09	-0.001	-27.40
June	-0.001	-13.89	-0.002	-11.41	-0.001	-16.36
July	-0.001	-15.73	-0.002	-13.12	-0.001	-21.89
August	-0.001	-14.09	-0.002	-11.37	-0.001	-15.03
September	-0.001	-23.30	-0.002	-17.74	0.000	-24.09
October	-0.001	-16.48	-0.002	-14.24	-0.001	-17.29
November	-0.001	-14.66	-0.002	-11.98	-0.001	-17.89
December	-0.001	-15.64	-0.002	-13.35	-0.001	-16.37
Pseudo-R²	0.17	4557	0.17	7577	0.13	5104
Observations	3,38	5,036	1,40	5,739	1,959	9,663

Source: EU-SILC, own calculations. – Notes: Logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.4.10

Regression results: Transitions from part-time to full-time employment

	Al	1	Wor	men	Me	n
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
BASELINE SPECIFICATION						
Male	0.132	7.14				
Female	Reference	category	Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category	Reference	category
Age 25-54	-0.076	-2.75	-0.062	-2.15	-0.117	-3.13
Age 55-65	-0.135	-13.22	-0.110	-13.52	-0.287	-9.47
Single	Reference	category	Reference	category	Reference	category
Married living with partner	-0.034	-4.47	-0.050	-5.19	0.020	0.54
Not married living with partner	0.027	2.63	0.005	0.49	0.079	2.07
ow skilled (ISCED 0-2)	-0.017	-1.87	-0.022	-1.86	-0.006	-0.19
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category
ligh skilled (ISCED 5)	0.036	4.74	0.037	5.10	-0.008	-0.30
lumber of children (<= 4) in household	-0.012	-0.88	-0.018	-1.34	0.007	0.29
Number of children (5-14 years) in household	-0.008	-1.54	-0.011	-2.13	0.008	0.70
Number of elderly (>=65) in household	-0.013	-1.20	-0.007	-0.72	-0.035	-1.54
ull-time employed partner in household	-0.036	-3.53	-0.025	-3.53	-0.013	-0.42
Part-time employed partner in household	0.004	0.17	0.013	0.64	-0.030	-0.72
nactive/unemployed partner in household	Reference	category	Reference	category	Reference	category
Nustria	Reference	category	Reference	category	Reference	category
Belgium	-0.059	-31.65	-0.047	-20.64	-0.165	-42.23
ulgaria	0.538	48.04	0.515	37.42	0.530	29.28
cyprus	0.057	8.63	0.089	10.12	-0.123	-12.93
zech Republic	0.159	52.21	0.197	63.23	-0.067	-10.02
enmark	0.141	18.22	0.182	19.53	-0.046	-2.77
stonia	0.143	21.02	0.229	22.31	-0.145	-20.29
inland	0.095	8.20	0.141	9.33	-0.090	-5.96
rance	-0.054	-13.75	-0.027	-6.21	-0.227	-19.41
Germany	-0.119	-28.34	-0.108	-31.61	-0.227	-9.42
Greece	0.113	13.78	0.098	11.63	0.121	12.26
	0.120	45.49	0.281	43.02	0.074	7.13
dungary	-0.007	-1.83	0.013	2.76	-0.141	-17.08
aly				34.15		-8.81
,	0.064	18.30	0.079		-0.069	
atvia	0.355	50.38	0.352	36.22	0.251	38.34
ithuania	0.379	76.17	0.418	64.44	0.195	26.74
uxembourg	-0.062	-18.18	-0.046	-12.99	-0.154	-24.90
letherlands	-0.116	-45.60	-0.100	-40.50	-0.252	-39.87
lorway	0.203	27.65	0.208	23.43	0.130	17.72
Poland	0.126	24.45	0.173	30.23	-0.064	-9.85
Portugal	0.012	1.47	0.022	2.41	-0.078	-4.63
Romania	0.253	16.70	0.108	7.98	0.326	11.87
Slovakia	0.142	52.74	0.166	56.40	-0.051	-4.08
Blovenia	0.101	20.67	0.168	30.98	-0.111	-13.17
Spain	0.176	21.16	0.176	22.69	0.121	11.09
Sweden	0.003	0.42	0.024	2.20	-0.131	-12.91
Jnited Kingdom	0.007	1.01	0.017	2.60	-0.036	-2.16

Table A.4.10, continued

	Al		Won	nen	Me	n
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
2005	-0.018	-1.40	-0.012	-0.90	-0.058	-3.65
2006	Reference	category	Reference	category	Reference	category
2007	-0.013	-2.14	-0.008	-1.49	-0.035	-1.42
2008	0.011	1.20	0.014	1.56	-0.003	-0.10
Pseudo-R <sup>2</sup>	0.1	323	0.1	134	0.1	017
Observations	34,	143	28,	730	5,	413
ADDITIONAL EXPLANATORIES						
Work experience	-0.004	-3.83	-0.004	-5.28	-0.003	-0.58
Work experience squared	0.000	0.00	0.000	3.45	0.000	-0.86
Health problems	-0.028	-3.34	-0.021	-3.59	-0.058	-1.91
Densely Populated	0.001	0.10	0.009	0.83	-0.046	-1.41
Intermediate	Reference	category	Reference	category	Reference	category
Thinly Populated	-0.005	-0.77	-0.004	-0.65	-0.019	-0.92
Real hourly wage	0.004	3.37	0.003	4.33	0.004	0.92
Legislators, Senior officials and Managers	Reference	category	Reference	category	Reference	category
Professionals	-0.070	-3.26	-0.064	-2.61	-0.060	-0.43
Technicians and Associate Professionals	-0.070	-3.23	-0.063	-2.34	-0.068	-0.56
Clerks	-0.092	-3.44	-0.081	-2.30	-0.121	-1.22
Service workers and shop and market sales w	-0.084	-3.52	-0.079	-2.44	-0.078	-0.93
Skilled agricultural and fishery workers	-0.077	-2.24	-0.032	-0.51	-0.156	-1.59
Craft and related trades workers	-0.042	-1.99	-0.073	-3.90	0.054	0.51
Plant and machine operators and assemblers	-0.031	-0.91	-0.016	-0.46	0.009	0.08
Elementary occupations	-0.092	-3.97	-0.086	-2.95	-0.098	-1.13
Pseudo-R <sup>2</sup>	0.1	474	0.1	298	0.1	029
Observations	22,	341	18,	878	3,	463

Source: EU-SILC, own calculations. – Notes: Logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. For the explanation of the additional explanatories see section 4.1.

Table A.4.11 Regression results: Transitions from part-time to full-time employment by country group

	Conti	Continental	Scandinavian	navian	Mediterranean	anean	CEE	Щ	UK and Ireland	Ireland
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
BASELINE SPECIFICATION										
Male	0.110	2.67	0.115	4.67	0.173	13.20	0.076	5.85	0.168	12.27
Female	Reference	Reference category	Reference category	category						
Age 15-24	Reference	Reference category	Reference category	category						
Age 25-54	-0.119	-6.45	-0.065	-0.76	0.001	90.0	-0.109	-11.12	-0.051	-1.39
Age 55-65	-0.093	-27.07	-0.231	-10.16	-0.124	-21.41	-0.270	-17.18	-0.147	-39.79
Single	Reference	Reference category	Reference category	category						
Married living with partner	-0.043	-10.14	0.004	0.10	-0.052	-7.41	0.002	0.10	-0.033	-9.05
Not married living with partner	0.010	1.19	0.066	3.63	-0.010	-0.32	0.144	4.32	0.013	3.33
Low skilled (ISCED 0-2)	-0.014	-1.90	0.000	0.00	-0.014	-0.44	-0.101	-4.07	-0.037	-5.62
Medium skilled (ISCED 3-4)	Reference	Reference category	Reference category	category						
High skilled (ISCED 5)	0.020	1.75	0.070	2.97	0.061	4.19	0.076	4.44	0.020	1.96
Number of children ( $\leq 4$ ) in household	-0.003	-0.27	0.016	0.77	0.005	0.18	0.039	1.34	-0.071	-5.16
Number of children (5-14 years) in household	-0.003	-1.55	0.008	0.73	-0.005	-1.03	0.019	1.46	-0.035	-5.07
Number of elderly (>=65) in household	-0.008	-0.39	-0.015	-0.25	-0.027	-1.15	-0.070	-1.84	0.018	3.04
Full-time employed partner in household	-0.009	-0.70	-0.069	-2.20	-0.098	-4.62	-0.068	-3.90	-0.027	-3.09
Part-time employed partner in household	0.009	0.44	-0.083	-2.08	-0.051	-1.38	-0.059	-0.69	0.079	6.52
Inactive/unemployed partner in household	Reference	Reference category	Reference category	category						
Austria	Reference	Reference category								
Belgium	-0.037	-11.78								
France	-0.043	-22.45								
Germany	-0.088	-11.65								
Luxembourg	-0.036	-11.06								
Netherlands	-0.080	-20.44								
Sweden			Reference category	category						
Denmark			0.134	14.00						
Finland			0.142	5.30						
Norway			0.203	21.65						

Table A.4.11, continued

	Continental	əntal	Scandinavian	avian	Mediterranean	anean	CEE	111	UK and Ireland	reland
2	Marg. effect	t-value								
Spain					Reference category	category				
Cyprus					-0.117	-10.34				
Greece					-0.044	-15.71				
Italy					-0.131	-19.91				
Portugal					-0.161	-13.57				
Czech Republic							Reference category	category		
Bulgaria							0.369	25.19		
Estonia							0.018	2.75		
Hungary							0.114	11.03		
Latvia							0.219	37.97		
Lithuania							0.244	25.13		
Poland							-0.007	-1.14		
Romania							0.180	9.33		
Slovakia							-0.015	-2.11		
United Kingdom									Reference category	sategory
Ireland									-0.002	-0.43
2005	-0.021	0.01	-0.048	0.01	-0.011	-0.30	-0.077	-5.57	0.002	1.04
2006	Reference category	sategory	Reference category	sategory	Reference category	category	Reference category	category	Reference category	sategory
2007	-0.022	0.01	0.052	0.01	-0.016	-2.95	0.042	3.55	-0.005	-0.85
2008	-0.010	0.00	0.010	0.01	0.058	6.81	0.044	1.10	-0.070	-44.46
Pseudo-R <sup>2</sup>	0.0998	86	0.0739	39	0.0716	16	0.0541	41	0.0771	71
Observations	15,692	92	3,627	27	7,589	89	4,141	41	3,094	94

Source: EU-SILC, own calculations. – Notes: Definition of country groups as on page 75. – Logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.4.12
Regression results: Monthly transitions from part-time to full-time employment

nog. coolen recance menning	A	-	Won	nen	Me	n
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
BASELINE SPECIFICATION						
Male	0.004	7.62				
Female	Reference	category	Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category	Reference	category
Age 25-54	-0.003	-5.08	-0.003	-5.70	-0.004	-3.26
Age 55-65	-0.004	-7.24	-0.004	-7.63	-0.009	-6.58
Single	Reference	category	Reference	category	Reference	category
Married living with partner	-0.001	-1.67	-0.002	-3.19	0.001	0.24
Not married living with partner	0.001	1.41	0.000	0.21	0.002	0.90
Low skilled (ISCED 0-2)	-0.001	-2.08	-0.001	-1.97	0.000	-0.27
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category
High skilled (ISCED 5)	0.002	6.07	0.002	6.15	0.001	0.84
Number of children (<= 4) in household	-0.001	-1.11	-0.001	-1.16	0.000	-0.35
Number of children (5-14 years) in household	-0.001	-2.57	-0.001	-2.44	-0.001	-1.78
Number of elderly (>=65) in household	0.000	-0.89	0.000	-0.47	-0.001	-1.14
Full-time employed partner in household	0.000	-0.76	0.000	-0.57	0.003	1.55
Part-time employed partner in household	0.000	0.02	0.000	0.13	-0.001	-0.66
Inactive/unemployed partner in household	Reference	category	Reference	category	Reference	category
Austria	Reference	category	Reference	category	Reference	category
Belgium	-0.002	-12.14	-0.001	-8.84	-0.007	-15.38
Bulgaria	0.010	12.65	0.010	8.10	0.010	10.25
Cyprus	0.000	-0.64	0.000	-2.21	-0.001	-1.78
Czech Republic	0.003	5.56	0.007	12.41	-0.008	-9.03
Denmark	0.001	2.24	0.003	6.41	-0.006	-12.15
Estonia	0.008	15.05	0.011	20.04	-0.001	-2.52
Finland	0.010	19.98	0.012	17.35	0.006	6.48
France	-0.002	-9.40	-0.001	-6.77	-0.007	-10.88
Germany	-0.004	-3.94	-0.003	-4.40	-0.006	-3.14
Greece	0.003	6.32	0.002	5.33	0.004	3.67
Hungary	0.004	12.14	0.006	16.68	0.000	-0.26
Ireland	-0.002	-25.95	-0.001	-14.92	-0.007	-18.86
Italy	0.002	11.48	0.002	12.02	0.000	1.02
Latvia	0.008	20.09	0.010	20.70	0.002	2.54
Lithuania	0.008	16.48	0.008	15.18	0.006	17.63
Luxembourg	-0.003	-24.59	-0.002	-31.67	-0.007	-18.57
Netherlands	-0.004	-12.09	-0.004	-10.19	-0.010	-15.20
Norway	0.006	6.06	0.006	7.04	0.006	4.63
Poland	0.003	10.65	0.004	13.09	-0.003	-9.98
Portugal	0.002	6.33	0.002	5.45	0.001	1.62
Romania	0.003	2.27	-	-	0.022	5.06
Slovakia	0.001	9.10	0.002	9.96	-0.004	-7.89
Slovenia	0.018	26.11	0.019	20.19	0.016	11.95
Spain	0.004	15.72	0.004	11.85	0.004	7.03
Sweden	0.008	16.78	0.007	11.13	0.011	10.45
United Kingdom	0.003	7.24	0.002	5.19	0.008	8.56

Table A.4.12, continued

	А	JI .	Wor	men	Me	en
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
2003	-0.003	-1.82	-0.002	-2.15	-0.003	-0.79
2004	0.002	2.04	0.002	2.38	0.003	1.22
2005	Reference	category	Reference	category	Reference	category
2006	0.000	0.33	0.000	0.44	0.000	-0.09
2007	0.000	0.48	0.001	0.85	-0.001	-1.10
January	Reference	category	Reference	category	Reference	category
February	-0.007	-11.77	-0.006	-12.11	-0.016	-11.66
March	-0.007	-19.75	-0.006	-23.43	-0.015	-15.51
April	-0.007	-18.85	-0.006	-18.13	-0.016	-19.16
May	-0.007	-15.52	-0.006	-16.95	-0.016	-13.46
June	-0.007	-17.81	-0.006	-19.98	-0.015	-14.34
July	-0.007	-18.52	-0.006	-20.31	-0.015	-14.32
August	-0.007	-16.65	-0.006	-17.31	-0.015	-15.02
September	-0.007	-32.41	-0.005	-31.43	-0.014	-22.41
October	-0.007	-19.80	-0.006	-22.45	-0.016	-15.70
November	-0.007	-16.42	-0.006	-18.75	-0.015	-13.18
December	-0.008	-18.22	-0.006	-21.14	-0.016	-14.38
Pseudo-R²	0.223	3897	0.217	404	0.22	356
Observations	486	,228	399,	,475	86,	593

Source: EU-SILC, own calculations. – Notes: Logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.4.13 **Estimation results: Two-year transitions from part-time to full-time employment** 

Latination results. Two-year tra	A		Fem		Ma	le
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
Female	Reference	category				
Male	0.093	6.91				
Age 15-24	Reference	category	Reference	category	Reference	category
Age 25-54	-0.017	-0.35	-0.031	-0.58	-0.003	-0.08
Age 55-65	-0.070	-0.85	-0.101	-1.04	-0.019	-0.20
Single	Reference	category	Reference	category	Reference	category
Married living with partner	-0.001	-0.04	0.057	1.31	-0.081	-1.51
Not married living with partner	0.010	0.27	0.050	1.59	-0.034	-0.57
Low skilled (ISCED 0-2)	-0.045	-2.13	-0.018	-0.86	-0.082	-2.82
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category
High skilled (ISCED 5)	-0.037	-0.99	-0.028	-0.60	-0.056	-1.42
Number of children (<= 4) in household	0.002	0.11	-0.009	-0.48	0.041	1.47
Number of children (5-14 years) in household	-0.007	-0.53	-0.019	-1.13	0.040	1.99
Number of elderly (>=65) in household	-0.060	-3.26	-0.081	-3.43	-0.016	-0.33
Full-time employed partner in household	-0.083	-1.59	-0.137	-2.37	-0.009	-0.18
Part-time employed partner in household	0.035	0.75	-0.146	-1.38	0.090	6.12
Inactive/unemployed partner in household	Reference	category	Reference	category	Reference	category
Austria	Reference	category	Reference	category	Reference	category
Belgium	0.020	1.10	0.022	0.83	0.018	1.36
Cyprus	0.125	15.02	0.141	20.90	-	-
Czech Republic	0.155	40.92	0.196	83.06	0.057	3.49
Denmark	0.011	0.46	0.029	1.08	-0.028	-0.83
Estonia	0.137	43.49	0.169	44.25	0.082	10.05
Finland	0.147	25.90	0.211	56.80	0.009	0.64
France	0.177	18.12	0.211	14.71	0.094	17.53
Greece	0.151	34.56	0.190	32.63	0.078	13.15
Hungary	0.115	24.19	0.149	27.30	0.040	3.79
Ireland	0.052	5.49	0.068	9.26	0.016	0.79
Italy	0.062	11.46	0.064	7.96	0.041	4.13
Latvia	0.102	16.69	0.143	27.38	-0.011	-0.41
Lithuania	0.062	6.83	0.136	17.21	-0.043	-1.65
Luxembourg	0.145	34.47	0.176	42.55	0.074	9.82
Netherlands	-0.001	-0.10	0.034	3.26	-0.042	-2.34
Norway	0.058	6.56	0.101	10.69	-0.108	-2.39
Poland	0.148	26.49	0.194	46.50	0.044	2.76
Portugal	0.173	45.05	0.230	88.77	0.064	8.70
Slovakia	0.148	29.69	0.167	31.87	-	-
Slovenia	0.123	24.04	0.183	49.50	-0.013	-0.59
Spain	0.109	12.49	0.110	8.15	0.078	12.89
Sweden	0.024	1.08	0.054	2.33	-0.043	-1.37
United Kingdom	0.009	0.46	-0.012	-0.70	0.038	1.71
2006	Reference	category	Reference	category	Reference	category
2007	0.053	2.20	0.044	1.64	0.062	2.16
2008	0.084	2.30	0.063	1.56	0.102	3.06
Pseudo-R <sup>2</sup>		878	0.0	745	0.13	
Observations	2,	567	1,	848		690

Source: EU-SILC, own calculations. – Notes: Logit model; The dependent variable takes value 1 if the individual is still in fulltime employment in year t and value 0 if the individual changed into part-time employment from year t-1 to year t. – t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.4.14 **Estimation results: Spouses' labour supply and the "added worker effect"** 

estimation results: Spouses			and th			er errec		
		s with an emp		-			oloyed partne	•
	Coefficient	male t-value	Coefficient	ale t-value	Coefficient	male t-value	Coefficient	ale t-value
Age 15-24		e category		e category		e category		e category
Age 25-54	-0.206	-0.97	-0.091	-0.32	-0.349	-1.79	-0.373	-0.95
Age 55-65	-0.200 - <b>0.464</b>		-0.199	-0.65			-0.373	-0.95
•		-2.41			-1.096	-3.29		
Single		e category		e category		e category		e category
Married	-0.185	-1.60	-0.134	-1.34	-0.181	-1.30	-0.188	-0.76
Low skilled (ISCED 0-2)	0.265	2.23	-0.153	-1.60	0.277	2.06	-0.142	-1.71
Medium skilled (ISCED 3-4)		e category	0.004	e category		e category		e category
High skilled (ISCED 5)	0.088	1.16		0.07	0.072	0.76	0.028	0.32
Number of children (<= 4) in household		0.11	0.014	0.32	-0.048	-1.23	-0.044	-0.56
Number of children (5-14 years) in household	0.255	4.20	-0.009	-0.32	0.140	3.13	0.016	0.26
Number of elderly (>=65) in household	-0.176	-1.46	-0.156	-1.12	0.130	1.49	0.235	0.98
Partner employed in year t		e category		e category				
Partner unemployed in year t	0.040	0.12	0.169	0.76				
Partner inactive in year t	0.386	1.63	-0.143	-0.67				
Partner employed in year t-1						e category		e category
Partner unemployed in year t-1					0.296	1.19	-0.751	-2.54
Partner inactive in year t-1					-0.229	-0.49	0.445	1.43
Austria	Referenc	e category	Reference	e category	Referenc	e category	Reference	e category
Belgium	-0.430	-17.33	0.180	7.47	-0.631	-17.39	-0.505	-10.32
Bulgaria	0.218	1.04	0.309	2.18	-0.147	-0.78	-0.627	-4.01
Cyprus	-0.479	-10.09	-0.201	-4.10	-0.543	-6.03	-0.874	-12.58
Czech Republic	-0.112	-2.85	0.150	3.30	-0.095	-0.91	-0.330	-3.69
Denmark	-0.122	-1.73	0.356	4.54	-0.464	-4.83	-0.016	-0.17
Estonia	-0.122	-3.60	-0.022	-1.87	-0.440	-8.60	-0.546	-16.39
Finland	-0.085	-3.22	0.222	9.12	-0.138	-2.58	-0.275	-7.05
France	-0.187	-2.36	0.562	9.29	-0.494	-4.66	-0.208	-2.15
Germany	-2.149	-12.83	-3.397	-24.15	-	-	-	-
Greece	-0.198	-3.48	-0.381	-8.25	-0.386	-4.97	-1.020	-14.75
Hungary	-0.254	-6.33	-0.017	-0.39	-0.162	-2.03	-0.414	-7.49
Ireland	-0.576	-36.73	-0.033	-0.94	-0.890	-19.85	-0.445	-11.01
Italy	-0.276	-22.31	0.211	10.26	-0.482	-36.62	-0.065	-2.10
Latvia	0.043	0.93	-0.490	-10.84	-0.154	-1.86	-0.178	-2.78
Lithuania	-0.033	-0.55	-0.005	-0.09	-0.542	-5.09	-0.901	-11.48
Luxembourg	-0.466	-24.72	0.315	11.47	-0.710	-21.21	-0.147	-3.08
Netherlands	-0.433	-12.17	0.157	3.68	-0.499	-9.45	-0.513	-6.17
Norway	0.015	0.56	0.351	14.51	0.042	0.93	0.144	2.33
Poland	0.092	1.81	0.060	1.15	0.015	0.15	-0.762	-10.50
Portugal	-0.330	-5.20	0.346	5.09	-0.635	-9.93	-0.101	-1.62
Romania	-0.263	-1.24	0.063	0.44	-	-	-	-
Slovakia	-0.257	-5.38	-0.057	-1.11	-0.494	-5.73	-0.446	-5.95
Slovenia	-0.601	-10.36	-0.343	-6.82	-0.643	-9.92	-0.963	-15.01
Spain	-0.305	-7.06	0.182	6.10	-0.567	-15.28	-0.095	-1.92
Sweden	-2.539	-36.38	-1.304	-21.84	-2.357	-25.20	-2.110	-14.96
United Kingdom	-0.544	-8.40	-0.151	-2.05	-0.644	-7.55	-0.927	-12.77
2005	0.010	0.13	0.063	0.31	-	-	-	-
2006	Referenc	e category	Reference	e category	Referenc	e category	Reference	e category
2007	0.071	0.86	0.146	1.55	-0.079	-0.50	0.234	2.04
2008	-0.241	-0.91	-0.075	-0.39	-0.224	-0.72	-0.006	-0.02
Adj. R²		0052		0039		0045		0043
Observations		5,243		,780		1,821		,124

Source: EU-SILC, own calculations. – Notes: t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

 Table A.4.15

 Estimation results: Female labour supply and the "added worker effect" by country group

	Continental	Scandinavian		Mediterranean	CEE	UK and Ireland	eland
	Coefficient t-value	Coefficient t-value	lue Coefficient	nt t-value	Coefficient t-value	Coefficient	t-value
Age 15-24	Reference category	Reference category		Reference category	Reference category	Reference category	ategory
Age 25-54	-0.582 -1.51	0.424 0.45	5 0.179	0.23	-0.187 -0.92	-0.192	-0.50
Age 55-65	-0.987 -7.71	-0.340 -0.32	.2 -0.338	-0.39	-0.774 -2.44	-2.538	-2.08
Single	Reference category	Reference category		Reference category	Reference category	Reference category	ategory
Married	-0.058 -0.33	-0.492 -1.30	0.032	0.11	0.057 0.18	-0.735	-2.55
Low skilled (ISCED 0-2)	0.292 2.67	0.247 0.96	6 0.037	0.23	0.069 0.26	1.905	2.37
Medium skilled (ISCED 3-4)	Reference category	Reference category		Reference category	Reference category	Reference category	ategory
High skilled (ISCED 5)	0.101 1.45	-0.124 -0.70	0 0.052	0.33	0.290 2.60	-0.433	-1.12
Number of children $(<=4)$ in household	-0.069 -1.65	-0.146 -0.63	3 -0.041	-0.55	0.267 2.11	0.196	0.87
Number of children (5-14 years) in household	0.142 1.51	0.144 1.52	0.161	2.33	0.072 0.97	0.392	10.63
Number of elderly (>=65) in household	-0.513 -2.65	0.395 0.89	9 -0.001	-0.01	0.287 2.79	0.437	0.82
Partner employed in year t-1	Reference category	Reference category		Reference category	Reference category	Reference category	ategory
Partner unemployed in year t-1	0.139 0.27	-2.138 -1.37	7 0.383	1.52	0.256 1.04	3.302	9.41
Partner inactive in year t-1	-0.461 -1.33	-1.040 -2.59	968.0	2.48	-0.407 -0.59	-3.299	-13.96
2006	Reference category	Reference category		Reference category	Reference category	Reference category	ategory
2007	0.090 0.41	2.231 1.04	4 -0.087	-0.46	-0.207 -2.85	-1.822	-28.86
2008	-0.162 -0.67	2.465 1.29	060.0	0.51	-0.089 -0.53	-0.424	-20.84
Austria	Reference category						
Belgium	-0.652 -16.43						
France	-0.417 -8.86						
Luxembourg	-0.697 -16.54						
Netherlands	-0.469 -7.34						
Sweden		Reference category	ory				
Denmark		1.348 2.78	œ				
Finland		2.482 9.18	80				
Norway		2.654 10.39	6				

Table A.4.15, continued

	Continental	Scandinavian	Mediterranean	ranean	CEE		UK and Ireland	reland
	Coefficient t-value	Coefficient t-value	e Coefficient t-value	t-value	Coefficient t-value	t-value	Coefficient t-value	t-value
Spain			Reference category	category				
Cyprus			-0.095	-0.85				
Greece			0.180	5.29				
Italy			0.029	0.49				
Portugal			0.004	0.07				
Czech Republic					Reference category	sategory		
Bulgaria					-0.117	-0.64		
Estonia					-0.181	-1.16		
Hungary					990.0	0.45		
Latvia					-0.064	-0.43		
Lithuania					-0.458	-3.33		
Poland					0.139	1.00		
Slovakia					-0.323	-2.46		
United Kingdom							Reference category	sategory
Ireland							-0.014	-0.17
Adj. R²	0.0007	0.0583	-0.0004	204	0.0025	25	0.0167	29
Observations	8,015	4,080	. έδ	8,264	10,631	31	1,260	09

Source: EU-SILC, own calculations. – Notes: t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.4.16 Estimation results: Male labour supply and the "added worker effect" by country group

	Continental	ental	Scandinavian	ıavian	Mediterranean	anean	CEE	Щ	UK and Ireland	Ireland
	Coefficient	t-value								
Age 15-24	Reference category	category								
Age 25-54	0.247	0.35	-1.954	-1.19	-1.686	-0.81	0.030	0.04	-0.721	-7.89
Age 55-65	-0.281	-0.48	-1.989	-1.11	-1.850	-0.85	0.255	0.42	-2.667	-5.97
Single	Reference category	category								
Married	0.335	3.06	-0.420	-0.86	-0.420	-5.08	-0.512	-1.64	-1.205	-62.61
Low skilled (ISCED 0-2)	-0.253	-2.22	0.411	1.08	-0.089	-1.52	-0.154	-1.16	-0.068	-0.71
Medium skilled (ISCED 3-4)	Reference category	category								
High skilled (ISCED 5)	-0.045	-0.47	-0.166	-0.61	0.240	1.25	-0.032	-0.29	-0.010	-0.05
Number of children $(<=4)$ in household	-0.206	-2.85	-0.044	-0.59	-0.048	-1.36	-0.080	-0.90	0.251	2.93
Number of children (5-14 years) in household	-0.079	-1.05	0.269	1.11	-0.021	-0.13	-0.002	-0.02	0.018	0.40
Number of elderly (>=65) in household	-0.604	-1.28	-2.527	-1.67	0.667	2.11	0.425	2.18	-3.933	-3.99
Partner employed in year t-1	Reference category	category								
Partner unemployed in year t-1	-0.615	-0.95	0.565	0.68	-1.217	-10.98	-0.108	-0.21	-2.041	-3.29
Partner inactive in year t-1	0.011	0.04	-0.410	-1.22	0.291	0.70	0.758	2.25	1.718	2.12
2006	Reference category	category								
2007	-0.804	-2.16	1.129	0.87	0.268	0.71	-0.014	-0.15	0.647	53.47
2008	-0.348	-0.93	1.316	0.95	0.461	1.78	-0.060	-0.49	0.518	11.95
Austria	Reference category	category								
Belgium	-0.434	-5.38								
France	0.098	0.76								
Luxembourg	-0.145	-1.81								
Netherlands	-0.600	-4.64								
Sweden			Reference category	category						
Denmark			1.638	5.14						
Finland			1.911	8.43						
Norway			2.268	13.47						

Table A.4.16, continued

	Continental	Scandinavian	Mediterranean	anean	CEE		UK and Ireland	reland
	Coefficient t-value	Coefficient t-value	Coefficient t-value	t-value	Coefficient t-value	t-value	Coefficient t-value	t-value
Spain			Reference category	category				
Cyprus			-0.724	-17.05				
Greece			-0.967	-6.25				
Italy			0.074	2.67				
Portugal			-0.014	-0.37				
Czech Republic					Reference category	tegory		
Bulgaria					-0.103	-0.68		
Estonia					-0.174	-1.34		
Hungary					0.051	0.42		
Latvia					0.279	2.23		
Lithuania					-0.415	-3.57		
Poland					-0.223	-1.87		
Slovakia					0.087	0.77		
United Kingdom							Reference category	category
Ireland							0.429	14.04
Adj. R²	0.0029	0.0298	0.0031	131	0.0012	<b>Q</b> I	0.0153	53
Observations	7,698	3,898	7,7	7,742	9,962	2	1,1	1,148

Source: EU-SILC, own calculations. – Notes: t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. Definition of country groups as on page 75.

Table A.4.17
Estimation results: Tobit estimation of spouse's working hours

	<b>ion of spou</b> Fer	nale	Mai	le
	Coefficient	t-value	Coefficient	t-value
ndividual characteristics				
Age 15-24	Reference	e category	Reference	category
Age 25-54	4.278	4.45	6.415	6.24
Age 55-65	-1.684	-1.39	-9.414	-4.87
ow skilled (ISCED 0-2)	-2.269	-4.84	-2.804	-5.39
Medium skilled (ISCED 3-4)	Reference	e category	Reference	category
ligh skilled (ISCED 5)	-0.039	-0.09	1.582	2.56
Partner's characteristics				
Age 15-24	Reference	e category	Reference	category
ge 25-54	10.189	9.07	1.549	1.99
ge 55-65	-7.982	-4.40	-9.940	-5.78
ow skilled (ISCED 0-2)	-11.190	-8.96	-3.160	-6.43
Nedium skilled (ISCED 3-4)	Reference	e category	Reference	category
ligh skilled (ISCED 5)	7.775	10.90	0.140	0.39
lousehold characteristics				
<i>f</i> larried	-2.860	-3.08	1.647	3.78
Single	Reference	e category	Reference	category
Number of children (<= 4) in household	-9.677	-8.88	0.199	0.78
lumber of children (5-14 years) in household	-3.161	-6.79	0.600	3.68
lumber of elderly (>=65) in household	-0.686	-0.50	-3.348	-2.71
lustria	Reference	e category	Reference	category
Belgium	0.735	3.92	0.082	0.65
Bulgaria	7.632	16.79	-2.187	-5.85
Syprus	6.461	25.41	6.831	72.40
czech Republic	5.603	20.93	3.904	22.59
enmark	11.232	39.29	2.322	8.82
stonia	7.781	23.89	1.262	7.91
inland	8.091	28.71	-0.834	-5.26
rance	6.013	27.00	-0.832	-4.95
Germany	1.832	1.78	-5.512	-9.25
Greece	1.438	4.44	6.017	19.91
lungary	3.185	17.77	-4.812	-73.08
eland	-1.051	-3.89	2.089	9.68
aly	-1.737	-5.44	1.771	4.45
atvia	9.826	35.87	3.312	32.16
ithuania	9.700	46.37	-0.752	-4.10
uxembourg	0.629	2.33	3.022	22.61
letherlands	-2.922	-10.85	0.870	6.51
lorway	9.401	33.44	2.818	16.48
oland	0.981	3.53	-3.344	-21.35
ortugal	16.257	17.02	5.168	9.35
Romania	4.966	12.49	-2.260	-5.60
Slovakia	8.356	43.35	0.300	2.18
Blovenia	9.267	54.58	-2.920	-38.35
Spain	0.863	2.28	4.980	19.83
Sweden	10.239	15.47	3.347	9.78
Jnited Kingdom	5.159	18.55	4.591	31.55

Table A.4.17, continued

	Fen	nale	Ma	le
	Coefficient	t-value	Coefficient	t-value
2004	-1.335	-2.68	-0.610	-3.23
2005	-1.109	-3.50	-0.296	-1.01
2006	Reference	e category	Reference	category
2007	0.324	1.65	0.187	0.85
2008	1.281	3.52	0.222	0.41
AdjR²	0.0	311	0.0	327
Observations	361	,944	361,	944

Source: EU-SILC, own calculations. – Notes: t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. – The estimation approach does not allow for calculating marginal effects, hence coefficient estimates are reportet instead.

Table A.4.18
Estimation results: Tobit estimation of spouse's working hours

	Fem	ıale	Mai	le
	Marg. effect	t-value	Marg. effect	t-value
Predicted working hours of the partner	0.403	13.94	0.354	9.98
Age 15-24	Reference	category	Reference	category
Age 25-54	10.125	8.21	3.142	2.25
Age 55-65	-3.169	-1.67	-13.336	-4.99
Low skilled (ISCED 0-2)	-10.235	-7.52	-1.453	-2.84
Medium skilled (ISCED 3-4)	Reference	category	Reference	category
ligh skilled (ISCED 5)	7.598	9.98	0.409	0.71
Single	Reference	category	Reference	category
<i>f</i> arried	-3.473	-3.71	2.493	5.78
lumber of children (<= 4) in household	-9.779	-9.03	3.621	7.87
lumber of children (5-14 years) in household	-3.426	-7.30	1.828	8.96
lumber of elderly (>=65) in household	0.651	0.46	-3.283	-2.55
Nustria	Reference	category	Reference	category
Belgium	0.514	2.65	-0.857	-6.48
Bulgaria	8.390	20.14	-5.134	-9.64
Cyprus	3.519	12.86	4.154	23.26
Czech Republic	4.126	17.50	1.725	6.93
enmark	10.204	41.40	-2.407	-8.19
stonia	7.254	21.40	-2.311	-5.57
inland	8.259	26.73	-4.546	-13.71
rance	6.217	27.03	-3.446	-24.03
Germany	3.984	3.80	-6.473	-10.43
Greece	-1.242	-4.19	5.557	22.11
lungary	5.127	26.56	-6.181	-33.85
eland	-2.205	-9.83	1.912	8.36
aly	-2.716	-11.52	2.314	5.15
atvia	8.442	28.35	-0.756	-1.62
ithuania	10.006	48.13	-4.830	-8.81
uxembourg	-0.771	-3.04	2.570	23.45
letherlands	-3.427	-13.08	1.517	7.54
lorway	8.194	29.56	-1.159	-3.03
Poland	2.364	9.53	-3.991	-18.74
ortugal	13.699	18.30	-0.684	-2.20
omania	5.881	15.37	-3.846	-7.75
lovakia	8.316	50.08	-2.900	-7.31
lovenia	10.448	53.46	-6.434	-18.66
Spain	-1.492	-4.48	4.343	21.04
Sweden	8.837	13.04	-1.199	-3.11
Inited Kingdom	3.189	11.31	2.174	10.06

Table A.4.18, continued

	Fem	ale	Mal	le
	Marg. effect	t-value	Marg. effect	t-value
2004	-1.094	-2.20	-0.094	-0.53
2005	-0.982	-3.09	0.119	0.43
2006	Reference	category	Reference	category
2007	0.272	1.46	0.067	0.33
2008	1.212	3.42	-0.282	-0.56
Observations	361,9	944	361,9	944

Source: EU-SILC, own calculations. – Notes: t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. – The estimation approach does not allow for calculating marginal effects, hence coefficient estimates are reported instead.

Table A.4.19 Regression results: Transitions from permanent to temporary employment by country group

	Continental	ental	Scandinavian	navian	Mediterranean	anean	CEE	Ш	UK and Ireland	Ireland
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
BASELINE SPECIFICATION										
Male	-0.006	-1.74	-0.008	-2.11	-0.008	-1.85	0.002	0.77	-0.002	-1.00
Female	Reference category	category	Reference category	category	Reference category	category	Reference category	category	Reference category	category
Age 15-24	Reference category	category	Reference category	category	Reference category	category	Reference category	category	Reference category	category
Age 25-54	-0.033	-5.62	-0.036	-4.39	-0.051	-3.86	-0.024	-4.31	-0.014	-4.50
Age 55-65	-0.014	-7.93	-0.022	-4.35	-0.039	-42.15	-0.011	-2.26	-0.010	-6.72
Single	Reference category	category	Reference category	category	Reference category	category	Reference category	category	Reference category	category
Married living with partner	-0.009	-2.93	-0.007	-2.54	-0.026	-3.13	-0.012	-5.66	-0.010	-47.74
Not married living with partner	0.004	1.05	0.000	-0.48	-0.008	-2.27	0.008	1.83	-0.002	-0.97
Low skilled (ISCED 0-2)	0.002	0.32	0.003	0.59	0.023	10.10	0.013	3.05	-0.001	-1.25
Medium skilled (ISCED 3-4)	Reference category	category	Reference category	category	Reference category	category	Reference category	category	Reference category	category
High skilled (ISCED 5)	-0.004	-1.37	0.003	0.62	-0.003	-3.59	-0.010	-8.46	0.004	71.67
Number of children $(<=4)$ in household	0.003	2.39	0.004	1.79	0.008	7.51	0.005	1.88	-0.004	-2.07
Number of children (5-14 years) in household	0.002	1.45	-0.001	-3.54	0.003	17.28	0.005	6.03	-0.001	-2.60
Number of elderly (>=65) in household	-0.004	-1.90	-0.002	-0.23	-0.007	-7.65	-0.004	-1.61	-0.005	-14.17
Full-time employed partner in household	-0.001	-0.23	-0.005	-6.33	-0.004	-0.78	-0.007	-6.47	-0.002	-2.50
Part-time employed partner in household	0.001	0.10	-0.009	-10.00	-0.006	-1.84	-0.005	-1.14	-0.003	-3.04
Inactive/unemployed partner in household	Reference	e category	Reference category	category						
Austria	Reference category	category								
Belgium	-0.005	-5.32								
France	-0.014	-12.41								
Germany	-0.004	-2.67								
Luxembourg	-0.007	-8.55								
Netherlands	-0.003	-2.85								
Sweden			Reference category	category						
Finland			-0.015	-12.99						
Norway			-0.004	-6.52						

Table A.4.19, continued

	Continental	Scandinavian	Mediterranean	CEE	UK and Ireland
	Marg. effect t-value	Marg. effect t-value	Marg. effect t-value	ue Marg. effect t-value	Marg. effect t-value
Spain			Reference category	Kı	
Cyprus			-0.020 -13.84	_	
Greece			-0.008 -19.71		
Italy			-0.033 -29.20		
Portugal			-0.025 -26.65		
Czech Republic				Reference category	
Bulgaria				-0.002 -2.31	
Estonia				-0.033 -71.62	
Hungary				0.008 18.66	
Latvia				-0.018 -58.94	
Lithuania				-0.013 -20.63	
Poland				0.012 25.55	
Romania				-0.028 -67.97	
Slovakia				0.020 39.03	
United Kingdom					Reference category
Ireland					0.003 73.91
2005	-0.001 -0.85	-0.020 -2.31	0.003 1.11	0.056 9.28	-0.001 -1.67
2006	Reference category	Reference category	Reference category	ry Reference category	Reference category
2007	0.001 0.30	-0.012 -3.01	-0.003 -0.43	0.004 0.58	0.003 21.19
2008	0.002 0.56	-0.008 -18.12	-0.011 -1.62	-0.004 -1.45	0.022 10.12
Pseudo-R²	0.0464	0.0837	0.0693	0.0387	0.0377
Observations	61,063	19,854	66,928	87,103	13,718

Source: EU-SILC, own calculations. – Notes: Definition of country groups as on page 75. – Logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.4.20
Regression results: Transitions from permanent to temporary employment

	A		Won	nen	Me	n
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
BASELINE SPECIFICATION						
Male	-0.005	-2.49				
Female	Reference	category	Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category	Reference	category
Age 25-54	-0.034	-7.76	-0.043	-7.60	-0.027	-5.75
Age 55-65	-0.022	-13.39	-0.021	-10.27	-0.022	-13.95
Single	Reference	category	Reference	category	Reference	category
Married living with partner	-0.013	-4.47	-0.010	-4.36	-0.015	-3.97
Not married living with partner	0.001	0.20	0.003	0.94	-0.001	-0.18
Low skilled (ISCED 0-2)	0.011	3.47	0.008	2.14	0.014	4.90
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category
High skilled (ISCED 5)	-0.003	-1.97	-0.003	-1.63	-0.003	-1.50
Number of children (<= 4) in household	0.004	3.78	0.004	2.89	0.004	3.28
Number of children (5-14 years) in household	0.002	3.55	0.003	3.40	0.001	0.89
Number of elderly (>=65) in household	-0.004	-7.07	-0.005	-3.10	-0.005	-3.97
Full-time employed partner in household	-0.003	-1.66	-0.005	-2.36	-0.003	-1.63
Part-time employed partner in household	-0.004	-2.00	-0.002	-0.53	-0.004	-1.79
Inactive/unemployed partner in household	Reference	category	Reference	category	Reference	category
Austria	Reference	category	Reference	category	Reference	category
Belgium	-0.007	-12.48	0.000	0.46	-0.013	-18.91
Bulgaria	0.012	3.98	0.022	5.89	0.004	1.37
Cyprus	0.002	2.62	0.012	8.94	-0.006	-7.12
Czech Republic	0.014	9.50	0.021	12.04	0.008	6.49
Estonia	-0.020	-38.70	-0.022	-60.45	-0.017	-27.62
Finland	-0.014	-27.78	-0.008	-12.75	-0.018	-27.89
France	-0.017	-42.93	-0.018	-33.46	-0.016	-31.48
Germany	-0.008	-6.02	-0.001	-0.31	-0.015	-14.49
Greece	0.022	9.21	0.030	12.43	0.015	7.70
Hungary	0.021	19.70	0.020	14.31	0.021	25.98
Ireland	-0.007	-28.81	0.001	1.24	-0.013	-27.96
Italy	0.000	-0.23	0.005	5.75	-0.004	-6.01
Latvia	-0.007	-8.61	-0.016	-28.49	0.002	3.20
Lithuania	-0.001	-0.97	-0.002	-1.71	0.000	0.00
Luxembourg	-0.012	-33.05	-0.007	-11.29	-0.015	-28.54
Netherlands	-0.003	-3.87	0.002	1.50	-0.007	-8.54
Norway	-0.002	-2.23	0.002	2.37	-0.005	-7.49
Poland	0.027	16.18	0.020	11.14	0.033	20.10
Portugal	-0.002	-1.78	-0.002	-1.79	-0.002	-1.69
Romania	-0.014	-11.71	-0.019	-23.54	-0.011	-6.93
Slovakia	0.034	18.58	0.031	13.93	0.037	25.03
Slovenia	0.016	9.74	0.013	8.37	0.017	9.92
Spain	0.031	11.92	0.040	9.84	0.024	14.00
Sweden	0.002	1.00	0.006	2.85	-0.002	-1.44
United Kingdom	-0.013	-19.76	-0.013	-21.48	-0.013	-16.19

Table A.4.20, continued

	Al	I	Wor	men	Me	n
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
2005	0.001	0.42	-0.001	-0.21	0.002	1.18
2006	Reference	category	Reference	e category	Reference	category
2007	-0.001	-0.25	-0.001	-0.43	0.000	-0.05
2008	-0.005	-1.68	-0.005	-1.78	-0.004	-1.57
Pseudo-R <sup>2</sup>	0.0	676	0.0	0611	0.0	779
Observations	248,	666	115	,677	132,	989
ADDITIONAL EXPLANATORIES						
Work experience	-0.001	-5.28	-0.002	-6.98	-0.001	-4.92
Work experience squared	0.000	0.00	0.000	0.00	0.000	0.00
Health problems	0.002	2.09	-0.001	-1.39	0.005	3.24
Densely Populated	0.001	0.60	0.003	1.48	0.000	0.11
Intermediate	Reference	category	Reference	e category	Reference	category
Thinly Populated	0.003	2.92	0.003	3.17	0.002	1.72
Real hourly wage	-0.003	-12.44	-0.002	-10.43	-0.003	-17.18
Legislators, Senior officials and Managers	Reference	category	Reference	e category	Reference	category
Professionals	-0.002	-0.43	-0.001	-0.15	-0.001	-0.27
Technicians and Associate Professionals	-0.005	-4.45	-0.004	-1.72	-0.006	-4.74
Clerks	-0.009	-4.55	-0.005	-1.39	-0.011	-6.62
Service workers and shop and market sales workers	0.000	0.05	0.008	2.20	-0.004	-2.40
Skilled agricultural and fishery workers	0.006	1.03	0.013	1.10	0.001	0.22
Craft and related trades workers	0.003	1.29	0.012	2.53	-0.001	
Plant and machine operators and assemblers	-0.001	-0.56	-0.005	-0.90	-0.003	-1.19
Elementary occupations	0.004	1.28	0.012	2.69	0.001	0.24
Pseudo-R <sup>2</sup>	0.1	118	0.0	0964	0.1	331
Observations	181,	813	84	,805	97,	008

Source: EU-SILC, own calculations. – Notes: Logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. For the explanation of the additional explanatories see section 4.1.

Table A.4.21

Regression results: Transitions from temporary to permanent employment

	al	I	wor	men	m	en
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
BASELINE SPECIFICATION						
Male	0.028	2.00				
Female	Reference	category	Reference	ecategory	Reference	category
Age 15-24	Reference	category	Reference	category	Reference	category
Age 25-54	0.015	0.50	0.002	0.07	0.022	0.75
Age 55-65	0.014	0.24	-0.033	-0.55	0.044	0.78
Single	Reference	category	Reference	category	Reference	category
Married living with partner	-0.015	-1.38	-0.046	-2.79	-0.001	-0.07
Not married living with partner	0.009	0.62	-0.034	-1.33	0.037	2.84
Low skilled (ISCED 0-2)	-0.057	-3.09	-0.009	-0.66	-0.094	-3.49
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category
High skilled (ISCED 5)	-0.016	-0.83	0.003	0.10	-0.038	-1.85
Number of children (<= 4) in household	-0.010	-1.23	-0.017	-1.87	-0.006	-0.34
Number of children (5-14 years) in household	-0.016	-1.58	-0.019	-1.81	-0.015	-1.00
Number of elderly (>=65) in household	0.003	0.42	-0.005	-0.54	0.011	1.82
Full-time employed partner in household	0.015	2.03	0.036	2.35	0.014	0.98
Part-time employed partner in household	0.012	0.65	-0.024	-1.19	0.015	0.89
Inactive/unemployed partner in household	Reference	category	Reference	category	Reference	category
Austria	Reference	category	Reference	ecategory	Reference	category
Belgium	-0.123	-38.20	-0.130	-42.23	-0.108	-23.19
Bulgaria	0.205	8.55	0.140	6.24	0.285	10.80
Cyprus	-0.193	-64.81	-0.219	-67.30	-0.129	-23.26
Czech Republic	-0.144	-27.18	-0.140	-20.03	-0.145	-17.38
Estonia	0.289	61.42	0.313	78.19	0.274	40.72
Finland	-0.259	-171.90	-0.244	-139.69	-0.280	-137.69
France	-0.320	-135.53	-0.338	-127.15	-0.297	-121.07
Germany	-0.181	-15.93	-0.179	-18.46	-0.177	-12.92
Greece	-0.206	-40.38	-0.210	-49.32	-0.194	-32.26
Hungary	0.052	6.05	0.036	4.85	0.066	4.56
Ireland	-0.021	-7.08	0.009	1.84	-0.068	-41.12
Italy	-0.184	-60.30	-0.201	-55.76	-0.160	-47.36
Latvia	0.115	17.28	0.162	18.42	0.090	10.98
Lithuania	0.004	0.67	0.047	5.95	-0.019	-1.87
Luxembourg	-0.074	-25.64	-0.057	-20.01	-0.089	-26.86
Netherlands	-0.232	-116.47	-0.206	-80.23	-0.258	-129.61
Norway	-0.062	-18.73	-0.076	-21.58	-0.032	-7.80
Poland	-0.205	-33.13	-0.195	-36.53	-0.212	-23.16
Portugal	-0.232	-83.65	-0.240	-103.23	-0.221	-55.00
Romania	0.039	1.60	-0.031	-1.57	0.107	3.51
Slovakia	0.034	4.29	0.032	3.92	0.035	2.30
Slovenia	-0.122	-15.63	-0.132	-17.73	-0.111	-9.64
Spain	-0.229	-70.55	-0.207	-35.91	-0.231	-44.27
Sweden	0.035	4.07	0.029	2.83	0.049	5.35
United Kingdom	0.019	1.82	0.031	2.59	0.016	1.53

Table A.4.21, continued

	all		won	nen	me	n
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
2005	0.035	1.40	0.022	0.92	0.039	1.42
2006	Reference	category	Reference	category	Reference	category
2007	-0.009	-0.39	0.005	0.28	-0.019	-0.75
2008	-0.012	-0.32	0.024	0.77	-0.036	-0.91
Pseudo-R <sup>2</sup>	0.08	505	0.0	619	0.04	172
Observations	34,2	272	17,	306	16,9	966
ADDITIONAL EXPLANATORIES						
Work experience	0.005	1.98	0.005	1.07	0.005	2.92
Work experience squared	0.000	-2.27	0.000	-0.81	0.000	-2.44
Health problems	0.000	0.01	-0.017	-1.84	0.013	0.42
Densely Populated	0.013	0.69	0.005	0.30	0.014	0.35
Intermediate	Reference	category	Reference	category	Reference	category
Thinly Populated	-0.019	-1.04	-0.027	-1.49	-0.011	-0.28
Real hourly wage	0.006	2.71	0.003	1.53	0.010	3.25
Legislators, Senior officials and Managers	Reference	category	Reference	category	Reference	category
Professionals	-0.055	-1.12	-0.178	-3.15	0.022	0.34
Technicians and Associate Professionals	0.002	0.05	-0.158	-2.56	0.123	2.31
Clerks	0.045	0.65	-0.123	-1.78	0.165	2.02
Service workers and shop and market sales wo	0.031	0.41	-0.146	-1.96	0.162	1.76
Skilled agricultural and fishery workers	-0.069	-0.79	-0.250	-6.79	0.089	0.77
Craft and related trades workers	0.014	0.23	-0.160	-2.25	0.140	2.35
Plant and machine operators and assemblers	0.027	0.39	-0.167	-3.51	0.162	2.16
Elementary occupations	-0.051	-0.87	-0.207	-3.43	0.070	1.03
Pseudo-R²	0.08	549	0.0	655	0.08	552
Observations	25,4	422	12,	839	12,5	583

Source: EU-SILC, own calculations. – Notes: Logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. For the explanation of the additional explanatories see section 4.1.

Table A.4.22 Regression results: Transitions from temporary to permanent employment by country group

	Continental	nental	Scandinavian	navian	Mediterranean	anean	CEE	ш	UK and Ireland	Ireland
	Marg. effect	t-value								
BASELINE SPECIFICATION										
Male	0.036	1.09	0:030	0.85	0.025	1.39	0.027	09.9	0.003	0.08
Female	Reference category	category								
Age 15-24	Reference category	category								
Age 25-54	-0.015	-0.22	-0.002	-0.10	0.043	1.84	0.009	1.15	-0.168	-3.77
Age 55-65	-0.023	-0.25	-0.005	-0.24	0.119	2.82	-0.106	-6.63	-0.278	-4.79
Single	Reference category	category								
Married living with partner	-0.078	-2.79	0.065	2.92	-0.022	-4.63	0.020	1.49	0.038	6.77
Not married living with partner	-0.032	-1.85	0.051	5.03	-0.017	-1.00	0.033	1.15	0.109	2.67
Low skilled (ISCED 0-2)	-0.116	-4.10	-0.009	-0.29	-0.034	-4.43	-0.083	-3.54	0.109	0.72
Medium skilled (ISCED 3-4)	Reference category	category								
High skilled (ISCED 5)	-0.037	-0.73	-0.020	-0.79	-0.014	-3.09	0.053	1.19	-0.022	-0.99
Number of children (<= 4) in household	0.010	1.29	0.013	0.28	-0.021	-1.67	-0.009	-3.58	0.000	0.01
Number of children (5-14 years) in household	0.003	0.26	0.003	0.16	-0.034	-2.94	900.0	0.76	-0.054	-19.37
Number of elderly (>=65) in household	0.035	2.41	0.059	0.97	-0.003	-0.60	-0.013	-0.95	0.251	0.71
Full-time employed partner in household	0.020	1.76	0.044	12.31	0.026	3.57	0.001	0.04	-0.004	-0.24
Part-time employed partner in household	0.007	1.05	0.070	1.12	0.019	0.77	-0.037	-0.93	0.196	23.73
Inactive/unemployed partner in household	Reference category	category								
Austria	Reference category	category								
Belgium	-0.110	-18.72								
France	-0.381	-96.99								
Germany	-0.189	96.6-								
Luxembourg	-0.061	-9.86								
Netherlands	-0.210	-45.76								
Sweden			Reference category	category						
Finland			-0.450	-13.75						
Norway			-0.150	-3.92						

Table A.4.22, continued

	Continental	Scandinavian	Mediterranean	iean	CEE		UK and Ireland	eland
	Marg. effect t-value	Marg. effect t-value	Marg. effect	t-value	Marg. effect t-va	t-value N	Marg. effect	t-value
Spain			Reference category	itegory				
Cyprus			0.007	0.85				
Greece			-0.021	-1.76				
Italy			0.036	11.12				
Portugal			-0.066	-8.29				
Czech Republic					Reference category	gory		
Bulgaria					0.355 54.08	80		
Estonia					0.443 151.32	32		
Hungary					0.221 52.57	24		
Latvia					0.299 80.85	82		
Lithuania					0.174 38.05	92		
Poland					-0.104 -22.26	56		
Romania					0.201 19.49	64		
Slovakia					0.207 45.83	83		
United Kingdom							Reference category	ategory
Ireland							-0.095	-1.53
2005	-0.005 -0.10	0.154 0.85	0.027	0.92	-0.102 -12.02	02	0.057	1.50
2006	Reference category	Reference category	Reference category	tegory	Reference category	yory	Reference category	ategory
2007	-0.034 -0.80	-0.164 -1.16	-0.008	-0.22	0.010 0.0	0.33	0.127	2.97
2008	0.030 1.16	-0.150 -1.19	-0.029	-0.43	0.020	1.22	-0.024	-3.66
Pseudo-R²	0.0804	0.1598	0.0082	2	0.0559		0.0533	33
Observations	6,214	2,063	13,573	3	11,789		9	633

Source: EU-SILC, own calculations. – Notes: Definition of country groups as on page 75. -Logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.4.23 **Estimation results: Two-year transitions from temporary to permanent employment** 

Latimation results. Two-year ti		All	Fem			ale
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
Female	Referenc	e category				
Male	0.009	0.62				
Age 15-24	Referenc	e category	Reference	category	Reference	e category
Age 25-54	0.035	1.88	0.006	0.25	0.062	2.98
Age 55-65	0.009	0.27	0.020	0.44	0.019	0.64
Single	Referenc	e category	Reference	category	Reference	e category
Married living with partner	-0.005	-0.14	-0.001	-0.02	-0.019	-0.35
Not married living with partner	-0.023	-0.77	-0.048	-0.87	-0.007	-0.11
Low skilled (ISCED 0-2)	-0.035	-2.47	-0.030	-1.11	-0.034	-1.34
Medium skilled (ISCED 3-4)	Referenc	e category	Reference	category	Reference	e category
High skilled (ISCED 5)	0.016	1.07	-0.016	-0.79	0.046	2.29
Number of children (<= 4) in household	-0.025	-1.22	-0.019	-1.02	-0.026	-0.93
Number of children (5-14 years) in household	0.002	0.31	-0.004	-0.64	0.009	0.81
Number of elderly (>=65) in household	0.036	3.78	0.022	0.75	0.046	1.79
Full-time employed partner in household	0.011	0.48	0.052	1.84	-0.030	-0.66
Part-time employed partner in household	0.021	0.98	-0.044	-0.46	0.026	0.99
Inactive/unemployed partner in household	Referenc	e category	Reference	category	Reference	e category
Austria	Referenc	e category	Reference	category	Reference	e category
Belgium	0.055	17.33	0.032	5.42	0.083	33.21
Bulgaria	-0.017	-0.54	-0.024	-1.37	0.012	0.36
Cyprus	-0.052	-3.37	-0.143	-4.57	0.033	4.99
Czech Republic	0.005	0.61	-0.022	-0.94	0.026	2.55
Finland	0.048	18.39	0.013	2.28		
France	0.091	15.83	0.082	19.63	0.099	14.47
Greece	-0.016	-1.01	-0.113	-4.43	0.040	5.24
Hungary	-0.031	-1.78	0.022	1.67	-0.070	-3.17
Ireland	0.047	10.44	0.057	12.89	0.041	3.90
Italy	0.048	15.50	0.031	6.46	0.066	11.60
Latvia	0.024	2.46	0.087	13.73	0.008	0.66
Lithuania	0.026	2.02	0.080	10.16	0.008	0.59
Luxembourg	0.062	24.24	0.049	11.13	0.070	20.71
Netherlands	0.016	0.94	0.012	0.68	0.016	0.93
Norway	-0.005	-0.74	-0.039	-4.79	0.035	4.89
Poland	0.004	0.25	-0.012	-0.68	0.025	1.71
Portugal	0.014	4.50	0.019	1.26	0.025	2.95
Slovakia	-0.054	-3.15	-0.106	-3.15	-0.002	-0.20
Slovenia	0.043	6.40	0.030	2.54	0.052	7.55
Spain	-0.050	-14.28	-0.051	-3.95	-0.035	-3.21
Sweden	-0.076	-5.49	-0.077	-1.96	-0.059	-1.91
United Kingdom	0.033	4.22	0.016	1.32	0.040	6.77
2006	Referenc	e category	Reference	category	Reference	e category
2007	0.005	0.15	0.027	0.70	-0.011	-0.40
2008	0.028	0.57	0.038	0.96	0.020	0.36
Pseudo-R <sup>2</sup>	0.0	)476	0.05	513	0.0	688
Observations	4	,802	2,3	315	2,	449

Source: EU-SILC, own calculations. – Notes: Logit model; The dependent variable takes value 1 if the individual is still in permanent employment in year t and value 0 if the individual changed into temporary employment from year t-1 to year t. – t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.4.24Estimation Results: Labour market status dependent on first employment after education

	Permanent e	mployment	Permanent employment Temporary employment	mployment	Selfemployment	ment	Unemployment	oyment	Inactivity	ivity
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
First employment after education										
Full-time, permanent	Reference category	category	Reference category	category	Reference category	ategory	Reference category	category	Reference category	category
Full-time, temporary	-0.424	-8.55	0.374	8.17	0.001	1.13	0.005	2.69	0.045	1.51
Part-time, permanent	-0.206	-4.45	0.125	2.94	0.000	0.34	0.002	0.94	0.078	2.08
Part-time, temporary	-0.540	-19.77	0.395	7.84	0.001	0.72	0.000	-0.09	0.145	2.55
1st year after entering employment	Reference category	category	Reference category	category	Reference category	ategory	Reference category	category	Reference category	category
2nd year after entering employment	0.040	96.0	-0.050	-1.78	0.002	1.99	-0.002	-2.16	0.011	0.35
3rd year after entering employment	0.152	4.40	-0.116	-7.28	0.003	2.20	-0.001	-0.85	-0.038	-1.08
Female	Reference category	category	Reference category	category	Reference category	ategory	Reference category	category	Reference	Reference category
Male	-0.011	-0.48	0.009	0.55	0.001	2.98	0.000	-0.22	0.002	0.07
Single	Reference category	category	Reference category	category	Reference category	ategory	Reference category	category	Reference category	category
Married living with partner	0.031	0.48	-0.001	-0.01	0.003	0.84	-0.002	-0.41	-0.031	-1.22
Not married living with partner	0.109	1.41	-0.054	-0.87	0.001	0.33	-0.002	-0.57	-0.054	-2.17
Low skilled (ISCED 0-2)	-0.050	-1.02	0.068	1.39	0.002	92.0	0.006	1.99	-0.026	-1.11
Medium skilled (ISCED 3-4)	Reference category	category	Reference category	category	Reference category	ategory	Reference category	category	Reference category	category
High skilled (ISCED 5)	0.158	3.73	-0.026	-0.83	0.001	1.62	-0.006	-3.88	-0.127	-6.59
Number of children $(<=4)$ in household	-0.044	-0.75	-0.052	-0.88	0.000	0.79	0.006	2.59	0.090	2.93
Number of children (5-14 years) in household	-0.038	-0.99	0.086	2.92	0.000	-0.35	0.001	0.61	-0.049	-1.83
Number of elderly (>=65) in household	0.047	1.09	-0.005	-0.22	0.000	-0.23	0.005	2.64	-0.047	-1.63
Full-time employed partner in household	-0.113	-1.19	0.086	1.38	-0.001	-0.90	0.001	0.13	0.027	0.70
Part-time employed partner in household	-0.250	-1.75	0.124	1.24	-0.001	-4.28	-0.006	-2.21	0.132	1.31
Inactive/unemployed partner in household	Reference category	category	Reference category	category	Reference category	ategory	Reference category	category	Reference category	category
COUNTRIES										
Austria	Reference category	category	Reference category	category	Reference category	ategory	Reference category	category	Reference category	category
Belgium	0.025	1.09	0.077	3.48	-0.001	-3.88	-0.002	-2.13	-0.099	-24.14
Bulgaria	0.167	7.63	-0.148	-20.95	0.001	66.0	-0.002	-2.35	-0.018	-1.14
Cyprus	0.089	5.44	-0.028	-2.29	-0.001	-3.13	-0.002	-3.21	-0.058	-7.67

Table A.4.24, continued

	Permanent e	nployment	Permanent employment Temporary employment	mployment	Selfemployment	oyment	Unemployment	oyment	Inactivity	ivity
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
Czech Republic	0.150	5.70	-0.027	-1.01	-0.001	-5.31	-0.008	-9.78	-0.114	-19.80
Denmark	0.305	36.23	-0.247	-26.76	-0.001	-5.39	-0.005	-7.89	-0.052	-11.73
Estonia	-0.220	-8.68	0.290	11.38	-0.001	-3.40	-0.007	-7.89	-0.063	-6.39
Spain	-0.004	-0.16	0.138	9.00	-0.001	-4.67	0.004	2.23	-0.137	-24.44
Finland	-0.258	-3.27	0.155	3.68	-0.002	-4.66	-0.016	-10.24	0.122	1.49
France	-0.251	-9.24	0.195	99.8	0.000	-0.39	0.019	3.24	0.038	1.55
Greece	-0.004	-0.22	0.067	3.92	0.000	-0.45	0.004	3.19	-0.067	-17.00
Hungary	0.068	3.20	-0.105	-7.22	-0.002	-5.14	0.011	4.12	0.029	1.61
Ireland	-0.056	-2.61	0.144	7.07	0.000	-0.88	-0.002	-2.45	-0.086	-15.26
Italy	0.237	20.05	-0.196	-30.64	0.000	-0.30	0.000	-0.11	-0.040	-5.37
Lithuania	-0.001	-0.06	0900	3.05	-0.001	-5.26	0.001	1.48	-0.059	-13.58
Luxembourg	0.165	69.9	-0.059	-2.45	-0.001	-2.99	-0.007	-10.51	-0.099	-21.51
Latvia	0.043	2.65	-0.004	-0.39	-0.003	-5.28	-0.002	-1.36	-0.035	-3.65
Netherlands	0.246	18.87	-0.166	-29.06	-0.001	-3.48	-0.005	-7.47	-0.075	-8.81
Norway	-0.050	-1.54	0.142	4.65	-0.001	-2.71	-0.002	-1.98	-0.088	-10.80
Poland	-0.208	-8.92	0.305	13.80	-0.001	-4.91	0.003	1.91	-0.099	-23.33
Portugal	0.109	4.41	-0.019	-0.77	0.002	1.36	-0.006	-10.95	-0.086	-17.59
Romania	0.129	5.26	-0.030	-1.24	-0.001	-2.99	-0.003	-2.79	960'0-	-21.05
Sweden	-0.044	-1.56	0.109	3.95	-0.001	-3.48	-0.003	-2.87	-0.062	-10.90
Slovenia	-0.082	-3.35	0.175	7.99	-0.001	-4.43	-0.002	-1.92	-0.090	-11.03
Slovakia	0.034	1.52	0.026	1.40	-0.002	-5.08	0.002	0.64	-0.059	-5.31
United Kingdom	0.178	7.38	-0.214	-27.34	0.000	0.53	-0.031	-11.76	990'0	2.70
2006	Reference category	category	Reference category	category	Reference category	category	Reference category	category	Reference category	category
2007	0.013	0.24	0.021	0.61	0.000	-0.19	0.001	0.37	-0.035	-0.95
2008	-0.005	-0.12	0.014	99.0	0.000	00.00	-0.002	-1.41	-0.007	-0.25
Pseudo-R <sup>2</sup>	0.199									
Observations	2,973									

Source: EU-SILC, own calculations. – Notes: t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.4.25 Estimation Results: Labour market status dependent on first labour market status after education

	Permanent ei	mployment	Permanent employment Temporary employment	nployment	Selfemployment	yment	Unemployment	yment	Inactivity	ıity
	Marg. effect t-value		Marg. effect t-value	t-value	Marg. effect t-value	t-value	Marg. effect t-value	t-value	Marg. effect t-value	t-value
First labour market status after education										
Full-time permanent employed	Reference category	category	Reference category	sategory	Reference category	category	Reference category	category	Reference category	sategory
Full-time temporary employed	-0.396	-8.71	0.338	6.50	0.008	0.47	0.051	2.01	-0.002	-0.05
Part-time permanent employed	-0.197	-4.66	0.092	2.03	0.010	0.35	0.022	1.02	0.074	1.65
Part-time temporary employed	-0.430	-21.23	0.331	6.38	0.005	0.30	-0.013	-0.33	0.107	2.01
Self-employed	-0.447	-31.27	0.014	0.24	0.419	4.27	-0.004	-0.08	0.018	0.29
Unemployed	-0.496	-17.81	0.106	2.11	0.012	0.81	0.280	5.62	0.098	3.54
Pseudo-R²	0.199									
Observations	2,973									

Source: EU-SILC, own calculations. – Notes: Multinomial logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.4.26Estimation Results: Labour market status dependent on first employment after unemployment

	Permanent employment Temporary employment	Temporary employme	nt Selfemployment	Unemployment	Inactivity
	Marg. effect t-value	Marg. effect t-value	Marg. effect t-value	Marg. effect t-value	Marg. effect t-value
First employment after education					
Full-time, permanent	Reference category	Reference category	Reference category	Reference category	Reference category
Full-time, temporary	-0.410 -12.57	0.358 9.35	0.000 0.00	0.041 3.16	0.010 1.40
Part-time, permanent	-0.028 -0.60	0.004 0.07	0.004 0.42	-0.025 -0.98	0.044 2.09
Part-time, temporary	-0.398 -16.24	0.352 9.08	0.010 1.30	0.023 1.82	0.013 0.93
1st year after entering employment	Reference category	Reference category	Reference category	Reference category	Reference category
2nd year after entering employment	0.019 0.93	-0.069 -3.80	0.006 1.03	0.029 1.40	0.016 2.11
3rd year after entering employment	0.064 2.11	-0.110 -4.59	0.011 1.48	-0.014 -1.16	0.049 3.46
Female	Reference category	Reference category	Reference category	Reference category	Reference category
Male	0.017 0.95	-0.008 -0.45	0.028 9.55	0.020 1.50	-0.056 -10.02
Age 15-24	Reference category	Reference category	Reference category	Reference category	Reference category
Age 25-54	0.037 1.40	-0.008 -0.28	0.002 0.39	-0.013 -0.58	-0.019 -1.88
Age 55-65	-0.031 -0.62	-0.066 -1.51	-0.016 -2.41	0.018 0.81	0.095 3.72
Single	Reference category	Reference category	Reference category	Reference category	Reference category
Married living with partner	-0.014 -0.28	0.037 1.18	0.015 2.07	-0.037 -1.63	-0.002 -0.18
Not married living with partner	-0.084 -1.50	0.057 1.27	0.026 1.27	-0.005 -0.17	0.006 0.57
Low skilled (ISCED 0-2)	-0.070 -4.06	0.001 0.07	0.003 0.38	0.060 6.61	0.005 0.78
Medium skilled (ISCED 3-4)	Reference category	Reference category	Reference category	Reference category	Reference category
High skilled (ISCED 5)	0.062 1.51	-0.007 -0.26	0.003 0.31	-0.035 -2.65	-0.023 -2.44
Number of children (<= 4) in household	-0.023 -1.86	-0.035 -2.79	0.001 0.18	0.017 1.12	0.041 7.43
Number of children (5-14 years) in household	-0.017 -1.78	0.001 0.11	0.006 1.65	0.009 1.12	0.002 0.16
Number of elderly (>=65) in household	-0.007 -0.40	-0.021 -2.11	0.006 1.92	0.018 1.23	0.004 0.53
Full-time employed partner in household	0.043 1.04	-0.028 -0.78	-0.008 -1.55	-0.007 -0.32	-0.001 -0.04
Part-time employed partner in household	0.089 1.04	-0.026 -0.47	-0.008 -1.82	-0.047 -1.52	-0.008 -0.64
Inactive/unemployed partner in household	Reference category	Reference category	Reference category	Reference category	Reference category
COUNTRIES					
Austria	Reference category	Reference category	Reference category	Reference category	Reference category
Belgium	-0.143 -13.17	0.148 9.69	0.026 4.24	0.014 1.66	-0.046 -14.46
Bulgaria	-0.125 -9.92	0.044 4.62	0.039 4.40	0.073 6.18	-0.029 -8.10
Cyprus	-0.249 -34.43	0.362 28.36	0.001 0.21	-0.081 -20.89	-0.034 -11.85
Czech Republic	-0.311 -17.05	0.422 17.02	-0.031 -36.44	-0.026 -1.47	-0.054 -11.60

Table A.4.26, continued

	Permanent e	mployment	Permanent employment Temporary employment	nployment	Selfemployment	oyment	Unemployment	yment	Inactivity	ivity
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
Denmark	0.144	13.21	-0.251	-40.00	-0.017	-9.41	0.119	10.43	0.005	0.67
Estonia	-0.287	-37.37	0.362	28.06	-0.028	-35.52	-0.019	-2.40	-0.028	-15.90
Spain	-0.292	-31.28	0.304	16.50	-0.004	-1.08	0.042	3.10	-0.050	-10.70
Finland	-0.216	-7.89	0.264	7.48	090.0	2.49	-0.068	-4.76	-0.041	-8.08
France	-0.313	-33.29	0.349	21.16	0.025	2.28	-0.024	-3.35	-0.037	-7.65
Greece	-0.179	-24.49	0.171	21.84	-0.009	-4.32	0.035	6.28	-0.018	-7.74
Hungary	-0.058	-7.92	0.001	90.0	0.042	3.95	0:030	3.96	-0.015	-5.44
Ireland	-0.238	-20.93	0.282	15.60	0.044	4.08	-0.054	-11.42	-0.033	-10.57
Italy	960'0	7.05	-0.176	-48.54	0:030	4.14	0.057	9.18	-0.007	-1.26
Lithuania	-0.051	-4.05	0.000	0.05	0.016	2.31	0.044	4.78	-0.009	-1.47
Luxembourg	-0.047	-2.71	0.127	7.00	0.033	3.60	-0.076	-21.91	-0.038	-10.73
Latvia	-0.164	-7.45	0.336	12.28	0.009	1.31	-0.136	-90.69	-0.044	-14.89
Netherlands	0.023	1.29	-0.017	-0.88	0.023	3.18	-0.024	-2.56	-0.006	-1.13
Norway	-0.224	-10.97	0.300	15.30	-0.009	-2.45	-0.030	-6.00	-0.037	-9.57
Poland	-0.225	-19.45	0.339	24.34	-0.005	-0.84	-0.063	-12.02	-0.046	-12.39
Portugal	0.114	7.31	-0.067	-5.08	0.022	4.53	-0.042	-11.75	-0.027	-5.05
Romania	-0.028	-1.53	0.127	7.77	0.023	3.15	-0.082	-27.25	-0.040	-11.18
Sweden	-0.170	-12.75	0.238	15.64	-0.004	-0.99	-0.015	-2.10	-0.049	-12.64
Slovenia	-0.266	-18.09	0.297	16.63	0.002	0.27	0.000	0.02	-0.034	-9.29
Slovakia	-0.085	-6.27	0.115	7.01	-0.005	-3.39	-0.013	-1.04	-0.012	-2.63
United Kingdom	-0.137	-8.96	0.022	1.85	0.074	6.40	0.031	2.94	0.011	2.29
2006	Reference category	category	Reference category	category	Reference category	category	Reference category	category	Reference category	category
2007	-0.010	-0.37	900.0	0.27	-0.006	-0.81	0.018	1.03	-0.007	-0.84
2008	0.034	1.09	0.003	60.0	-0.006	-1.27	-0.024	-2.82	-0.007	-0.68
Pseudo-R <sup>2</sup>	0.131									
Observations	8,789									

Source: EU-SILC, own calculations. – Notes: t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.4.27

Regression results: Transition from full-time employment covered by a permanent contract

	FP_	FP	FP_	FT	FP_	PP	FP_I	PT
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
BASELINE SPECIFICATION								
Male	0.0296	9.22	0.0014	0.95	-0.0291	-8.32	-0.0019	-10.33
Female	Reference	category	Reference	category	Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category	Reference	category	Reference	category
Age 25-54	0.0301	5.17	-0.0250	-5.06	-0.0029	-1.14	-0.0022	-4.45
Age 55-65	0.0087	0.87	-0.0190	-12.79	0.0111	1.15	-0.0008	-5.41
Single	Reference	category	Reference	category	Reference	category	Reference	category
Married living with partner	0.0127	2.96	-0.0113	-4.73	-0.0009	-0.27	-0.0005	-2.73
Not married living with partner	0.0004	0.09	0.0002	0.07	-0.0008	-0.38	0.0002	0.55
Low skilled (ISCED 0-2)	-0.0140	-3.55	0.0111	3.64	0.0023	1.32	0.0005	2.20
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category	Reference	category
High skilled (ISCED 5)	0.0045	3.00	-0.0017	-1.16	-0.0024	-2.31	-0.0004	-5.19
Number of children (<= 4) in household	-0.0110	-9.31	0.0040	4.80	0.0070	10.32	0.0000	0.00
Number of children (5-14 years) in household	-0.0023	-3.10	0.0008	1.30	0.0013	2.06	0.0002	3.23
Number of elderly (>=65) in household	0.0041	2.88	-0.0039	-5.87	0.0002	0.16	-0.0004	-2.50
Full-time employed partner in household	-0.0029	-0.96	-0.0025	-1.66	0.0056	2.23	-0.0002	-1.34
Part-time employed partner in household	0.0040	1.81	-0.0056	-3.26	0.0014	1.30	0.0001	0.21
Inactive/unemployed partner in household	Reference	category	Reference	category	Reference	category	Reference	category
Austria	Reference	category	Reference	category	Reference	category	Reference	category
Belgium	0.0090	12.47	-0.0089	-17.15	-0.0003	-0.54	0.0001	1.11
Bulgaria	-0.0016	-0.54	0.0095	3.90	-0.0088	-14.99	0.0008	2.13
Cyprus	0.0103	9.84	0.0005	0.67	-0.0106	-18.28	-0.0002	-2.78
Czech Republic	0.0007	0.46	0.0122	10.28	-0.0122	-19.00	-0.0007	-9.86
Estonia	0.0279	29.97	-0.0172	-33.27	-0.0098	-17.19	-0.0009	-11.11
Finland	0.0239	28.25	-0.0145	-27.67	-0.0086	-14.12	-0.0007	-9.46
France	0.0278	46.72	-0.0176	-38.68	-0.0099	-19.11	-0.0003	-4.41
Germany	0.0076	3.03	-0.0128	-16.35	0.0045	1.80	0.0008	2.84
Greece	-0.0053	-3.44	0.0118	7.61	-0.0085	-21.96	0.0020	7.66
Hungary	-0.0063	-5.81	0.0170	20.00	-0.0104	-19.05	-0.0003	-4.92
reland	0.0177	29.26	-0.0125	-39.56	-0.0052	-13.27	-0.0001	-1.72
taly	0.0122	18.65	-0.0049	-6.94	-0.0080	-17.17	0.0006	6.67
_atvia	0.0161	15.71	-0.0061	-9.62	-0.0098	-17.38	-0.0002	-3.33
Lithuania	0.0122	8.91	-0.0018	-1.78	-0.0102	-17.96	-0.0002	-2.78
Luxembourg	0.0100	30.21	-0.0125	-31.65	0.0022	6.55	0.0003	3.41
Netherlands	-0.0001	-0.10	-0.0054	-9.85	0.0043	4.96	0.0011	5.50
Norway	0.0076	7.17	-0.0043	-7.45	-0.0036	-4.77	0.0003	2.73
Poland	-0.0094	-5.88	0.0210	15.98	-0.0125	-19.90	0.0008	6.40
Portugal	0.0164	14.92	-0.0032	-2.96	-0.0123	-18.33	-0.0008	-8.33
Romania	0.0262	15.95	-0.0113	-10.32	-0.0130	-19.15	-0.0018	-10.71
Slovakia	-0.0173	-10.13	0.0293	21.11	-0.0116	-19.66	-0.0004	-7.14
Slovenia	-0.0022	-1.31	0.0136	9.20	-0.0106	-19.00	-0.0008	-8.08
Spain	-0.0130	-8.29	0.0202	11.37	-0.0090	-13.78	0.0018	11.61
Sweden	0.0073	3.49	-0.0045	-3.97	-0.0038	-3.64	0.0010	2.47
Jnited Kingdom	0.0146	15.68	-0.0126	-20.45	-0.0016	-2.42	-0.0004	-5.56
2005	-0.0009	-0.42	0.0017	1.22	-0.0016	-0.28	-0.0004	-2.46
2006	-0.0009 Reference		Reference		-0.0005 Reference		Reference	
2007	0.0005	0.20	0.0000	0.00	-0.0004	-0.55	-0.0002	-1.12
2008 Pseudo P <sup>2</sup>	0.0047	1.65	-0.0040	-1.98	-0.0004	-0.40	-0.0003	-1.28
Pseudo-R <sup>2</sup> Observations	221,	941						

Source: EU-SILC, own calculations. – Notes: FP\_FP, FP\_FT, FP\_PP, FP\_PT indicate full-time permanent employment in period t and full-time permanent, full-time temporary, part-time permanent, and part-time temporary employment in period t+1, respectively. – Multinomial logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.4.28

Regression results: Transition from full-time employment covered by a temporary contract

contract	FT_	FT	FT_	FP	FT_	PP	FT_	PT
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
BASELINE SPECIFICATION								
Male	0.0037	0.16	0.0420	2.44	-0.0119	-4.11	-0.0339	-7.76
Female	Reference	category	Reference	category	Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category	Reference	category	Reference	category
Age 25-54	-0.0195	-0.82	0.0206	0.85	0.0000	0.00	-0.0010	-0.22
Age 55-65	-0.0621	-1.44	0.0342	0.78	0.0150	2.76	0.0129	1.35
Single	Reference	category	Reference	category	Reference	category	Reference	category
Married living with partner	0.0231	1.91	-0.0194	-1.50	-0.0024	-1.03	-0.0013	-0.64
Not married living with partner	-0.0065	-0.53	0.0110	0.77	0.0001	0.04	-0.0045	-1.63
Low skilled (ISCED 0-2)	0.0567	3.46	-0.0602	-3.62	0.0002	0.16	0.0032	1.20
Medium skilled (ISCED 3-4)	Reference		Reference		Reference		Reference	category
High skilled (ISCED 5)	0.0093	0.48	-0.0033	-0.16	-0.0041	-3.76	-0.0019	-0.52
Number of children (<= 4) in household	0.0121	0.78	-0.0140	-1.08	0.0010	0.79	0.0009	0.23
Number of children (5-14 years) in household	0.0163	1.23	-0.0162	-1.34	0.0007	0.81	-0.0007	-0.48
Number of elderly (>=65) in household	-0.0155	-1.45	0.0084	0.89	0.0008	0.42	0.0062	2.22
Full-time employed partner in household	-0.0217	-2.85	0.0142	1.65	0.0037	1.38	0.0039	1.07
Part-time employed partner in household	-0.0217	-2.71	0.0422	3.15	0.0037	0.53	-0.0010	-0.33
Inactive/unemployed partner in household	Reference		Reference		Reference		Reference	
Austria	Reference		Reference	• •	Reference		Reference	0 ,
	0.0559	13.45	-0.1057	-19.53	0.0032	4.54	0.0466	10.92
Belgium								
Bulgaria	-0.2607	-12.02	0.2174	9.27	0.0065 -0.0068	3.20	0.0367	9.50
Cyprus	0.2123	69.27	-0.1879	-55.49		-10.18	-0.0176	-27.37
Czech Republic	0.1426	22.12	-0.1201	-18.85	-0.0075	-9.96	-0.0150	-16.59
Estonia	-0.3173	-62.18	0.3265	62.40	-0.0022	-5.13	-0.0070	-7.49
Finland -	0.2351	56.90	-0.2532	-96.57	-0.0062	-10.32	0.0243	7.96
France	0.3082	71.88	-0.3162	-115.91	-0.0046	-8.78	0.0126	6.09
Germany	0.1566	11.70	-0.1799	-15.16	-0.0055	-9.95	0.0287	5.03
Greece	0.1870	25.28	-0.1960	-33.77	-0.0061	-11.53	0.0151	6.09
Hungary	-0.0840	-8.49	0.0937	9.46	-0.0015	-3.96	-0.0083	-6.95
reland	-0.0547	-9.19	-0.0035	-0.68	0.0049	4.38	0.0533	13.60
taly	0.1489	33.71	-0.1680	-42.30	-0.0037	-15.74	0.0228	9.95
_atvia	-0.1557	-24.58	0.1508	23.74	0.0016	1.52	0.0032	2.51
Lithuania	-0.0177	-2.12	0.0343	4.50	-0.0030	-4.14	-0.0137	-12.13
Luxembourg	0.0727	26.49	-0.0869	-29.32	0.0064	6.92	0.0078	10.64
Netherlands	0.2304	73.96	-0.2547	-91.72	-0.0009	-2.73	0.0252	12.47
Norway	0.0274	7.88	-0.0649	-15.77	-0.0027	-6.78	0.0402	11.91
Poland	0.1981	30.98	-0.1874	-30.43	-0.0077	-8.68	-0.0030	-2.17
Portugal	0.2471	80.80	-0.2204	-76.45	-0.0075	-10.00	-0.0192	-20.30
Romania	-0.0291	-1.07	0.0699	2.69	-0.0085	-9.87	-0.0323	-26.22
Slovakia	-0.0536	-6.37	0.0781	9.66	-0.0064	-9.60	-0.0180	-21.40
Slovenia	0.1112	12.81	-0.0955	-11.03	-0.0062	-9.81	-0.0095	-8.13
Spain	0.2115	56.10	-0.2234	-67.37	-0.0067	-9.27	0.0185	10.91
Sweden	-0.1241	-15.48	0.0321	3.39	0.0085	7.86	0.0835	21.82
Jnited Kingdom	-0.0616	-5.02	0.0422	3.50	0.0041	4.01	0.0152	5.20
2005	-0.0394	-1.54	0.0425	1.70	0.0018	1.67	-0.0048	-0.86
2006	Reference	category	Reference	category	Reference	category	Reference	category
2007	0.0141	0.56	-0.0109	-0.45	-0.0001	-0.05	-0.0032	-0.77
2008	0.0270	0.63	-0.0216	-0.53	-0.0006	-0.37	-0.0047	-1.49
Pseudo-R <sup>2</sup>	0.0	)559						
Observations		,559						

Source: EU-SILC, own calculations. – Notes: FT\_FT, FT\_FP, FT\_PP, FT\_PT indicate full-time temporary employment in period t and full-time temporary, full-time permanent, part-time permanent, and part-time temporary employment in period t+1, respectively. – Multinomial logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.4.29

Regression results: Transition from part-time employment covered by a permanent contract

	PP_	PP	PP_	PT	PP_	.FP	PP_	FT
	Marg. effect	t-value						
BASELINE SPECIFICATION								
Male	-0.1347	-5.88	0.0033	0.71	0.1257	4.97	0.0057	3.25
Female	Reference	category	Reference	category	Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category	Reference	category	Reference	category
Age 25-54	0.1129	4.99	-0.0465	-7.05	-0.0550	-2.34	-0.0114	-3.87
ge 55-65	0.1315	13.93	-0.0205	-7.23	-0.1022	-12.49	-0.0089	-18.66
Single	Reference	category	Reference	category	Reference	category	Reference	category
farried living with partner	0.0309	2.73	-0.0058	-1.27	-0.0176	-2.44	-0.0075	-3.05
lot married living with partner	-0.0283	-2.24	-0.0025	-0.34	0.0294	2.22	0.0014	0.57
ow skilled (ISCED 0-2)	0.0150	1.47	-0.0015	-0.54	-0.0154	-1.90	0.0018	1.25
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category	Reference	category
ligh skilled (ISCED 5)	-0.0284	-2.69	-0.0031	-0.70	0.0301	3.85	0.0014	1.26
umber of children (<= 4) in household	0.0135	0.88	0.0003	0.10	-0.0126	-0.95	-0.0012	-1.53
lumber of children (5-14 years) in household	0.0022	0.33	0.0029	1.93	-0.0050	-0.78	-0.0001	-0.15
lumber of elderly (>=65) in household	0.0104	0.90	0.0030	0.62	-0.0121	-1.22	-0.0013	-1.56
ull-time employed partner in household	0.0349	2.99	-0.0048	-0.94	-0.0296	-3.79	-0.0005	-0.24
art-time employed partner in household	-0.0042	-0.23	-0.0017	-0.35	0.0010	0.06	0.0050	1.02
nactive/unemployed partner in household	Reference	category	Reference	category	Reference	category	Reference	category
lustria	Reference	category	Reference	category	Reference	category	Reference	category
elgium	0.0532	22.09	0.0006	0.37	-0.0528	-29.68	-0.0010	-3.11
ulgaria	-0.5008	-44.87	-0.0251	-39.65	0.4516	25.57	0.0743	6.83
yprus	-0.0902	-18.78	0.0305	10.37	0.0548	13.55	0.0049	8.77
zech Republic	-0.1591	-24.38	0.0202	7.15	0.1054	20.60	0.0335	21.94
stonia	-0.1115	-15.12	-0.0151	-29.43	0.1182	17.43	0.0084	7.29
inland	-0.0879	-15.13	0.0141	5.58	0.0650	9.31	0.0087	4.76
rance	0.0558	18.59	-0.0120	-12.12	-0.0475	-13.82	0.0038	3.52
ermany	0.0945	28.46	0.0044	1.49	-0.0956	-23.76	-0.0034	-4.89
ireece	-0.3368	-54.84	0.1070	8.38	0.1806	12.13	0.0492	13.77
ungary	-0.2988	-52.15	0.0383	12.20	0.2180	30.86	0.0426	12.43
eland	-0.0226	-6.14	0.0241	16.03	-0.0067	-1.85	0.0053	5.58
aly	-0.0729	-31.88	0.0178	8.61	0.0400	16.94	0.0150	10.39
atvia	-0.3508	-45.77	-0.0112	-15.36	0.3469	50.01	0.0151	6.52
ithuania	-0.3415	-37.13	-0.0114	-15.99	0.3182	43.24	0.0347	10.01
uxembourg	0.0618	18.06	-0.0097	-8.85	-0.0627	-22.81	0.0105	15.72
letherlands	0.1093	37.23	-0.0065	-3.76	-0.1039	-49.03	0.0011	1.88
lorway	-0.1821	-30.52	0.0048	2.54	0.1541	20.34	0.0233	11.01
oland	-0.1549	-23.02	0.0219	6.50	0.0827	25.14	0.0503	14.44
ortugal	-0.0876	-8.70	0.0621	9.46	-0.0011	-0.18	0.0266	7.02
domania	-0.1804	-14.99	-0.0252	-39.81	0.2121	17.16	-0.0065	-12.72
lovakia	-0.2298	-25.95	0.0911	11.57	0.0975	23.22	0.0412	11.08
lovenia	-0.0873	-9.61	0.0301	5.77	0.0366	5.16	0.0206	12.94
pain	-0.1852	-17.74	0.0546	7.12	0.0931	18.05	0.0376	7.77
weden	-0.0199	-3.32	0.0128	2.39	-0.0033	-0.43	0.0104	4.63
nited Kingdom	-0.0073	-0.88	-0.0034	-2.38	0.0141	1.85	-0.0034	-8.23
005	0.0069	0.47	0.0051	0.96	-0.0113	-1.08	-0.0007	-0.51
006	Reference		Reference		Reference		Reference	
007	0.0168	2.77	-0.0040	-1.03	-0.0127	-2.23	-0.0001	-0.11
008	-0.0046	-0.59	-0.0040	-0.74	0.0070	0.61	0.0010	0.72
seudo-R <sup>2</sup>		058	0.000	0.17	0.5070	3.01	5.0010	0.72
Dbservations		,960						

Source: EU-SILC, own calculations. – Notes: PP\_PP, PP\_PT, PP\_FP, PP\_FT indicate part-time permanent employment in period t and part-time permanent, part-time temporary, full-time permanent, and full-time temporary employment in period t+1, respectively. – Multinomial logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

Table A.4.30
Regression results: Transition from part-time employment covered by a temporary contract

	PT_	PT	PT_	PP	PT_	FP	PT_	FT
	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value	Marg. effect	t-value
BASELINE SPECIFICATION								
Male	-0.0779	-5.19	-0.0575	-5.58	0.0560	2.90	0.0794	4.64
Female	Reference	category	Reference	category	Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category	Reference	category	Reference	category
Age 25-54	0.0730	1.41	0.0055	0.25	-0.0307	-1.05	-0.0478	-2.43
Age 55-65	0.1985	3.23	0.0255	0.61	-0.0906	-4.22	-0.1334	-16.28
Single	Reference	category	Reference	category	Reference	category	Reference	category
Married living with partner	0.0040	0.12	0.0384	1.18	-0.0203	-1.39	-0.0221	-0.97
Not married living with partner	-0.0426	-0.76	0.0354	0.77	-0.0348	-2.02	0.0420	1.30
Low skilled (ISCED 0-2)	0.0437	1.52	0.0050	0.22	-0.0449	-3.73	-0.0038	-0.24
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category	Reference	category
High skilled (ISCED 5)	-0.0128	-0.62	-0.0269	-1.20	-0.0058	-0.34	0.0455	2.49
Number of children (<= 4) in household	-0.0133	-0.49	0.0069	1.27	-0.0077	-0.42	0.0141	0.94
Number of children (5-14 years) in household	0.0325	2.83	-0.0013	-0.25	-0.0191	-2.49	-0.0121	-2.00
Number of elderly (>=65) in household	0.0017	0.08	0.0263	0.98	-0.0490	-3.87	0.0210	0.73
Full-time employed partner in household	0.0551	1.75	0.0006	0.03	-0.0134	-0.76	-0.0423	-1.20
Part-time employed partner in household	0.0748	1.48	-0.0610	-3.88	0.0011	0.05	-0.0150	-0.36
Inactive/unemployed partner in household	Reference	category	Reference	category	Reference	category	Reference	category
Austria	Reference	category	Reference	category	Reference	category	Reference	category
Belgium	0.2506	31.08	-0.0889	-24.05	-0.0767	-32.61	-0.0850	-24.57
Bulgaria	-0.2185	-6.63	-0.1177	-20.79	0.4357	12.43	-0.0995	-18.11
Cyprus	0.2186	13.18	-0.1049	-23.83	-0.0624	-9.84	-0.0512	-7.01
Czech Republic	0.1849	23.14	-0.1408	-62.08	-0.0211	-4.06	-0.0231	-5.63
Estonia	-0.0299	-2.37	-0.0860	-22.82	0.2604	21.18	-0.1446	-103.58
Finland	0.1855	7.13	-0.1358	-32.46	-0.0939	-31.91	0.0443	2.09
France	0.4440	37.70	-0.2174	-60.54	-0.0879	-24.38	-0.1388	-22.49
Germany	0.3015	31.93	-0.0665	-10.91	-0.1000	-33.39	-0.1349	-28.22
Greece	0.2709	26.64	-0.1389	-58.46	-0.0424	-13.51	-0.0896	-12.85
Hungary	0.1294	10.14	-0.1088	-28.42	0.0279	4.93	-0.0484	-8.60
Ireland	0.1857	11.57	-0.0607	-10.03	0.0042	0.40	-0.1291	-46.91
Italy	0.2238	25.86	-0.1413	-47.24	-0.0484	-13.27	-0.0341	-7.59
Latvia	-0.0287	-2.30	-0.0924	-23.03	0.1197	11.75	0.0013	0.36
Lithuania	-0.1739	-20.19	-0.1094	-40.55	0.1019	11.88	0.1814	21.54
Luxembourg	0.0899	9.17	-0.0377	-8.84	-0.0472	-9.70	-0.0050	-0.89
Netherlands	0.3394	29.71	-0.1034	-18.27	-0.1122	-47.70	-0.1238	-19.93
						14.75		
Norway Poland	-0.0779 0.2217	-5.86 21.01	-0.0810 -0.1503	-34.22 -34.64	0.1468 -0.0531	-15.22	0.0121 -0.0183	1.98 -4.17
Portugal	0.2982	28.13	-0.1303	-37.62	-0.1074	-37.58	-0.0598	-7.95
Romania	0.2962	26.13	-0.1511	-67.85	0.2212	5.09	-0.0398	-114.31
Slovakia	0.1101	13.80		-26.51	-0.0405	-13.07		
Slovenia			-0.1020				0.0226	4.52
	0.0923	10.08	-0.1377	-43.98 34.70	-0.0725	-22.49	0.1179	21.68
Spain	0.0896	5.53	-0.1509	-34.79 0.17	-0.0136	-3.69	0.0749	6.32
Sweden	0.0763	2.75	0.0034	0.17	0.0063	0.67	-0.0860	-10.85
United Kingdom	0.1043	5.57	-0.0149	-2.11	-0.0125	-1.11	-0.0769	-14.06
2005	-0.0024	-0.06	0.0402	1.89	-0.0399	-3.22	0.0021	0.10
2006	Reference		Reference		Reference		Reference	
2007	0.0008	0.02	0.0212	1.02	-0.0174	-1.26	-0.0046	-0.39
2008	-0.0424	-1.03	0.0263	1.02	0.0125	1.13	0.0036	0.24
Pseudo-R <sup>2</sup>		083						
Observations	6,	713						

Source: EU-SILC, own calculations. – Notes: PT\_PT, PT\_PP, PT\_FP, PT\_FT indicate part-time temporary employment in period t and part-time temporary, part-time permanent, full-time permanent, and full-time temporary employment in period t+1, respectively. – Multinomial logit model; t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively.

## **RWI**

Table A.5.1 **Reason for labour market transitions** in per cent

Reason for change	Share
To take up or search for better job	48.93
End of temporary contract	16.22
Obliged to stop by employer (business closure, redundancy, early retirement, dismissal etc.)	11.03
Sale or closure of own/family business	1.90
Child care and care for other dependent	1.41
Partner's job required move to another area	0.85
Other reason	19.66

Source: EU-SILC, own calculations.

Table A.5.2 **Overall upward and downward transitions by intuitive classification** 

	Total	Percentage
Upward	16,826,280	6.89
Downward	13,588,380	5.57
Neutral	11,296,934	4.63
No transition	202,434,616	82.92

Source: EU-SILC, own calculations.

Table A.5.3 Shorrocks mobility indices (4 states) by country 2006

Country	without job changes	with job changes
Belgium	0.22	0.29
France	0.23	0.30
Portugal	0.24	0.31
Slovenia	0.25	0.27
Luxembourg	0.25	0.34
Slovakia	0.26	0.34
Czech Republic	0.26	0.32
Greece	0.27	0.32
Italy	0.29	0.36
Poland	0.30	0.33
Austria	0.30	0.37
Ireland	0.32	0.41
Estonia	0.33	0.42
Lithuania	0.33	0.39
EU-SILC	0.25	0.27
Hungary	0.34	0.39
Cyprus	0.34	0.41
Spain	0.37	0.44
Finland	0.37	0.42
Denmark	0.39	0.43
Germany	0.39	0.43
United Kingdom	0.43	0.52
Latvia	0.45	0.49
Norway	0.46	0.53
Sweden	0.46	0.51
Netherlands	0.47	0.52

Source: EU-SILC, own calculations, wave 2006. – Notes: The four different states are (self-) employment, unemployment, education and inactivity.

## **RWI**

Table A.5.4 Shorrocks mobility indices (8 states) and reasons for job change by country 2006

2000	Shorrocl	ks index	R	eason for job chan	ge
Country	Without job changes	With job changes	Changes to a better job in per cent	End of temporary contract in per cent	Obliged to move in per cent
Portugal	0.25	0.33	42.82	22.95	11.19
France	0.26	0.30	32.61	32.20	9.97
Belgium	0.32	0.37	48.38	13.45	16.17
Netherlands	0.32	0.37	49.11	14.32	6.34
Denmark	0.33		49.28	3.77	6.14
Luxembourg	0.33	0.37	48.00	12.41	19.47
Czech Republic	0.33	0.38	57.54	6.18	18.29
Greece	0.35	0.38	65.85	11.18	9.97
EU-SILC	0.41	0.45	40.72	19.66	15.16
Germany	0.36	0.39	27.34	17.73	31.18
Italy	0.37	0.43	44.18	24.81	16.66
Poland	0.38	0.42	52.84	14.82	15.78
Austria	0.38	0.42	48.49	7.54	25.75
Slovenia	0.41	0.45	44.19	15.32	14.26
Ireland	0.42	0.45	52.95	11.02	5.93
Slovakia	0.42	0.48	36.46	5.02	7.63
Finland	0.42	0.48	82.23	6.40	2.89
Cyprus	0.43	0.48	61.35	2.34	14.25
United Kingdom	0.44	0.54			
Spain	0.45	0.52	42.00	28.00	7.16
Sweden	0.47	0.53	49.16	16.46	7.81
Norway	0.47	0.57	42.58	13.65	6.02
Estonia	0.50	0.53	68.08	3.36	17.45
Lithuania	0.50	0.54	70.07	6.46	7.13
Hungary	0.51	0.55	27.71	8.29	7.46
Latvia	0.60	0.63	69.27	4.24	7.03

Source: EU-SILC, own calculations. – Notes: The eight different states are full-time employment with a permanent contract, full-time employment with a temporary contract, part-time employment with a permanent contract, part-time employment with a temporary contract, self-employed, unemployment, education and inactivity.

Table A.5.5 **Estimation results: health status** 

	Ordere	d Logit	Ordinary Lea	st Squares
	Odds Ratio	z-value	Odds Ratio	z-value
Male	1.049	5.42	1.006	1.56
Female	Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category
Age 25-54	0.333	-65.14	0.656	-70.09
Age 55-65	0.192	-83.20	0.533	-83.94
Married living with partner	0.856	-12.68	0.950	-10.01
Single	Reference	category	Reference	category
Not married living with partner	0.918	-4.67	0.967	-4.71
ow skilled (ISCED 0-2)	0.782	-25.79	0.903	-26.64
Nedium skilled (ISCED 3-4)	Reference	category	Reference	category
ligh skilled (ISCED 5)	1.411	27.49	1.147	28.69
lumber of children (<= 4) in household	1.374	34.49	1.138	37.18
lumber of children (5-14 years) in household	1.117	18.41	1.046	19.18
Number of elderly (>=65 ) in household	1.044	4.82	1.018	4.76
ull-time employed partner in household	1.253	20.61	1.107	22.43
Part-time employed partner in household	1.104	5.35	1.046	6.11
nactive/unemployed partner in household	Reference	category	Reference	category
ull-time, permanent	1.794	7.85	1.285	9.36
ull-time, temporary	1.927	8.67	1.319	10.16
art-time, permanent	1.447	4.86	1.170	5.71
art-time, temporary	1.538	5.38	1.200	6.28
self-employed	1.672	6.86	1.249	8.23
Inemployed	Reference	category	Reference	category
ducation	2.269	35.12	1.368	36.51
active	0.588	-27.22	0.769	-32.00
egislators, senior officials and managers	1.017	0.23	1.007	0.25
Professionals	0.996	-0.05	0.994	-0.22
echnicians and associate professionals	0.945	-0.77	0.980	-0.77
Elerks	0.897	-1.47	0.958	-1.62
Service workers and shop and market sales vorkers	0.936	-0.90	0.974	-0.99
Skilled agricultural and fishery workers	0.721	-4.32	0.888	-4.36
Craft and related trades workers	0.861	-2.05	0.955	-1.77
lant and machine operators and assemblers	0.838	-2.38	0.945	-2.15
lementary occupations	0.696	-4.89	0.869	-5.26
004	1.085	2.49	1.022	2.04
005	1.015	1.23	1.002	0.42
006	Reference	category	Reference	category
007	1.032	3.17	1.012	2.92
2008	1.084	8.07	1.035	8.50

Table A.5.5, continued

	Ordere	Ordered Logit Ordinary Leas		ast Squares
	Odds Ratio	z-value	Odds Ratio	z-value
Austria	Reference	category	Reference	category
Belgium	0.669	-17.55	0.875	-15.92
Bulgaria	0.333	-32.49	0.667	-29.18
Cyprus	1.363	11.74	1.064	6.83
Czech Republic	0.391	-42.45	0.711	-40.74
Germany	0.311	-39.44	0.665	-34.71
Denmark	0.960	-0.72	0.945	-2.63
Estonia	0.179	-80.87	0.533	-76.86
Spain	0.446	-40.81	0.766	-36.44
Finland	0.816	-6.49	0.910	-8.45
France	0.605	-24.24	0.844	-22.19
Greece	3.341	46.01	1.409	39.42
Hungary	0.221	-68.97	0.566	-68.23
Ireland	1.509	14.13	1.163	15.44
Italy	0.435	-45.72	0.768	-39.58
Lithuania	0.145	-84.39	0.483	-80.07
Luxembourg	0.736	-11.29	0.903	-10.39
Latvia	0.121	-90.70	0.445	-85.56
Netherlands	0.536	-24.11	0.828	-19.11
Norway	0.482	-25.93	0.766	-25.20
Poland	0.267	-68.52	0.614	-68.49
Portugal	0.185	-73.14	0.525	-69.62
Romania	0.650	-15.25	0.866	-13.52
Sweden	0.759	-9.93	0.903	-10.12
Slovenia	0.270	-50.45	0.616	-47.65
Slovakia	0.274	-57.12	0.612	-58.01
United Kingdom	0.849	-6.72	0.951	-5.71
Pseudo-R <sup>2</sup>	0.	105	0.2	237
Observations	655,	521	655,	521

Table A.5.6 **Estimation results: Change in health status** 

	Odds Ratio	z-value
Male	1.0031	0.35
Female	Reference	category
Age 15-24	Reference	category
Age 25-54	1.0152	1.03
Age 55-65	1.0467	2.71
Single	Reference	category
Married living with partner	1.0076	0.58
Not married living with partner	0.9906	-0.51
Low skilled (ISCED 0-2)	1.0093	0.91
Medium skilled (ISCED 3-4)	Reference	category
High skilled (ISCED 5)	0.9736	-2.08
Number of children (<= 4) in household	0.9921	-0.82
Number of children (5-14 years) in household	1.0050	0.82
Number of elderly (>=65 ) in household	0.9946	-0.52
Full-time employed partner in household	0.9876	-1.08
Part-time employed partner in household	0.9776	-1.17
Inactive/unemployed partner in household	Reference	category
Employed - unemployed	0.9654	-1.03
Employed - education	1.0320	0.44
Employed - inactive	0.8582	-5.08
Unemployed - employed	1.0603	1.98
Unemployed - education	1.0835	0.77
Unemployed - inactive	0.9270	-1.71
Education - employed	0.9704	-0.82
Education - unemployed	0.9831	-0.29
Education - inactive	0.8862	-1.5
nactive - employed	1.1841	5.21
nactive - unemployed	1.0007	0.01
nactive - education	1.0235	0.24
No transition	Reference	category
Legislators, senior officials and managers	0.9537	-2.25
Professionals	0.9996	-0.02
Technicians and associate professionals	0.9928	-0.45
Clerks	0.9929	-0.4
Service workers and shop and market sales workers	0.9625	-2.21
Skilled agricultural and fishery workers	0.9760	-1.03
Craft and related trades workers	0.9718	-1.74
Plant and machine operators and assemblers	0.9886	-0.58
Elementary occupations	0.9747	-1.25
Not employed	Reference	category

Table A.5.6, continued

	Odds Ratio	z-value	
2005	1.0648	4.7	
2006	Reference category		
2007	1.0220	2.08	
2008	1.0926	8.24	
Austria	Reference	category	
Belgium	1.0447	1.96	
Bulgaria	0.7998	-5.13	
Cyprus	1.0713	2.85	
Czech Republic	1.0851	3.86	
Germany	1.1209	3.86	
Denmark	1.0483	1.48	
Estonia	1.0699	2.99	
Spain	1.0899	4.09	
Finland	0.9489	-1.87	
France	1.0811	3.75	
Greece	1.0125	0.61	
Hungary	1.1548	6.43	
Ireland	1.0772	2.89	
Italy	1.0513	2.76	
Latvia	1.1055	3.93	
Luxembourg	1.0048	0.17	
Lithuania	1.1982	6.84	
Netherlands	1.0657	2.49	
Norway	1.0468	1.71	
Poland	1.1093	5.58	
Portugal	1.1451	5.51	
Romania	1.0545	2.2	
Sweden	1.1124	3.97	
Slovenia	1.0071	0.26	
Slovakia	1.0790	3.54	
United Kingdom	1.1714	6.93	
Pseudo-R <sup>2</sup>	0.00	007	
Observations	622,0	052	

Table A.5.7

Estimation results: Change in health status by country group, Continental

Estimation results: Change in health status		
	Odds Ratio	z-value
Male	1.012	0.59
Female	Reference	
Age 15-24	Reference	0 ,
Age 25-54	1.035	1.08
Age 55-65	1.093	2.45
Single	Reference	category
Married living with partner	0.982	-0.67
Not married living with partner	0.980	-0.57
Low skilled (ISCED 0-2)	1.006	0.26
Medium skilled (ISCED 3-4)	Reference	
High skilled (ISCED 5)	0.974	-1.13
Number of children (<= 4) in household	0.990	-0.55
Number of children (5-14 years) in household	1.005	0.47
Number of elderly (>=65 ) in household	1.001	0.02
Full-time employed partner in household	0.986	-0.54
Part-time employed partner in household	0.978	-0.68
Inactive/unemployed partner in household	Reference	
Employed - unemployed	0.935	-0.94
Employed - education	1.258	1.20
Employed - inactive	0.880	-1.82
Unemployed - employed	0.949	-0.80
Unemployed - education	1.784	2.41
Unemployed - inactive	1.102	0.90
Education - employed	1.033	0.46
Education - unemployed	1.123	0.70
Education - inactive	0.909	-0.56
Inactive - employed	1.163	2.33
Inactive - unemployed	0.920	-0.47
Inactive - education	0.842	-0.74
No transition	Reference	category
Legislators, senior officials and managers	0.979	-0.49
Professionals	1.010	0.26
Technicians and associate professionals	0.967	-1.02
Clerks	1.014	0.42
Service workers and shop and market sales workers	0.981	-0.53
Skilled agricultural and fishery workers	0.964	-0.57
Craft and related trades workers	0.979	-0.54
Plant and machine operators and assemblers	0.970	-0.68
Elementary occupations	0.990	-0.25
Not employed	Reference	category
2005	1.008	0.32
2006	Reference	
2007	0.997	-0.14
2008	0.942	-2.28
Austria	Reference	category
Belgium	1.048	2.03
Germany	1.064	1.90
France	1.054	2.43
Luxembourg	1.012	0.41
Netherlands	1.068	2.48
Pseudo-R <sup>2</sup>		005
Observations	131,	445

Table A.5.8

Estimation results: Change in health status by country group. Scandianvian

Estimation results: Change in health status b	Odds Ratio	z-value
Male	1.002	0.07
Female	Reference	
Age 15-24	Reference	• •
Age 25-54	0.996	-0.10
Age 55-65	1.029	0.58
Single	Reference	
Married living with partner	1.062	1.51
Not married living with partner	1.002	0.51
Low skilled (ISCED 0-2)	0.941	-1.70
Medium skilled (ISCED 3-4)		
	Reference 0.995	0,
High skilled (ISCED 5)		-0.16
Number of children (<= 4) in household	0.969	-1.33
Number of children (5-14 years) in household	1.008	0.51
Number of elderly (>=65 ) in household	0.998	-0.04
Full-time employed partner in household	0.966	-1.08
Part-time employed partner in household	0.977	-0.49
Inactive/unemployed partner in household	Reference	0 ,
Employed - unemployed	0.958	-0.39
Employed - education	1.084	0.61
Employed - inactive	0.928	-0.86
Unemployed - employed	1.145	1.29
Unemployed - education	0.870	-0.37
Unemployed - inactive	0.787	-1.09
Education - employed	1.001	0.02
Education - unemployed	1.191	1.03
Education - inactive	0.542	-2.22
Inactive - employed	1.284	2.48
Inactive - unemployed	1.125	0.68
Inactive - education	0.925	-0.30
No transition	Reference	category
Legislators, senior officials and managers	0.951	-0.90
Professionals	0.940	-1.32
Technicians and associate professionals	1.027	0.59
Clerks	0.947	-0.96
Service workers and shop and market sales workers	0.924	-1.51
Skilled agricultural and fishery workers	1.021	0.27
Craft and related trades workers	0.999	-0.02
Plant and machine operators and assemblers	0.956	-0.72
Elementary occupations	1.023	0.27
Not employed	Reference	category
2005	0.972	-0.82
2006	Reference	category
2007	1.049	1.35
2008	0.843	-4.59
Denmark	Reference	category
Finland	0.989	-0.25
Norway	1.094	2.19
Sweden	1.169	3.94
Pseudo-R <sup>2</sup>	0.00	
Observations	43,3	

Table A.5.9 Estimation results: Change in health status by country group, Mediterranian

Estimation results: Change in health status i	Odds Ratio	z-value
Male	1.023	2-value 1.52
Female	Reference	
Age 15-24	Reference	0 ,
Age 25-54	1.020	0.82
Age 55-65	1.047	1.56
Single	Reference	
Married living with partner	1.004	0.20
Not married living with partner	0.952	-1.17
Low skilled (ISCED 0-2)	1.020	1.25
Medium skilled (ISCED 3-4)	Reference	
High skilled (ISCED 5)	0.956	-1.87
Number of children (<= 4) in household	0.976	-1.44
Number of children (5-14 years) in household	1.006	0.52
Number of elderly (>=65 ) in household	0.990	-0.69
Full-time employed partner in household	1.012	0.64
Part-time employed partner in household	1.034	0.93
Inactive/unemployed partner in household	Reference	
Employed - unemployed	0.994	-0.11
Employed - education	0.920	-0.75
Employed - inactive	0.878	-2.62
Unemployed - employed	1.121	2.28
Unemployed - education	1.025	0.15
Unemployed - inactive	0.964	-0.55
Education - employed	0.928	-0.99
Education - unemployed	0.893	-1.45
Education - inactive	0.839	-1.35
Inactive - employed	1.113	2.03
Inactive - unemployed	0.971	-0.40
Inactive - education	1.045	0.30
No transition	Reference	
Legislators, senior officials and managers	0.930	-2.09
Professionals	0.998	-0.06
Technicians and associate professionals	0.989	-0.44
Clerks	0.995	-0.19
Service workers and shop and market sales workers	0.915	-3.05
Skilled agricultural and fishery workers	0.955	-1.12
Craft and related trades workers	0.954	-1.83
Plant and machine operators and assemblers	1.005	0.14
Elementary occupations	0.971	-0.91
Not employed	Reference	
2005	1.108	5.55
2006	Reference	
2007	1.060	3.45
2008	1.137	7.35
Cyprus	Reference	
Spain	1.008	0.37
Greece	0.945	-2.52
Italy	0.975	-1.28
Portugal	1.062	2.40
Pseudo-R <sup>2</sup>	0.00	
Observations	198,3	

Table A.5.10

Estimation results: Change in health status by country group, CEE Odds Ratio z-value Male 0.991 -0.70 Female Reference category Age 15-24 Reference category Age 25-54 0.996 -0.21Age 55-65 1.023 0.99 Single Reference category Married living with partner 1.024 1.28 Not married living with partner 1.083 2.57 Low skilled (ISCED 0-2) 1.41 Medium skilled (ISCED 3-4) Reference category High skilled (ISCED 5) 0.975 -1.19Number of children (<= 4) in household 0.996 -0.32 Number of children (5-14 years) in household 1.001 0.09 Number of elderly (>=65) in household 1.002 0.17 Full-time employed partner in household 0.967 -2.04 Part-time employed partner in household 0.952 -1.21Inactive/unemployed partner in household Reference category 0.880 Employed - unemployed -2.490.998 Employed - education -0.010.733 -6.65 Employed - inactive Unemployed - employed 1.083 2.06 0.09Unemployed - education 1.013 Unemployed - inactive 0.834 -3.02 0.961 -0.78Education - employed Education - unemployed 0.855 -1.61 Education - inactive 0.856 -1.261.415 7.04 Inactive - employed Inactive - unemployed 0.969 -0.41 Inactive - education 1.040 0.32 No transition Reference category Legislators, senior officials and managers 0.980 -0.54 **Professionals** 1.001 0.05 Technicians and associate professionals 0.98 1.024 Clerks 0.994 -0.19Service workers and shop and market sales workers 1.039 1 49 Skilled agricultural and fishery workers 1.002 0.06 Craft and related trades workers 1.008 0.33 Plant and machine operators and assemblers 0.998 -0.09 Elementary occupations 0.995 -0.17Not employed Reference category 2005 1.232 4.89 2006 Reference category 2007 1.018 1.16 2008 1.069 4.42 Bulgaria 0.720 -6.88Czech Republic Reference category -2.43 Estonia 0.940 1.072 3.02 Hungary Lithuania 1.021 0.79 1.111 3.78 Latvia Poland 1 029 1 60 Romania 0.984 -0.66 0.921 -2.85 Slovenia -0.18 Slovakia 0.996 0.0013 Pseudo-R<sup>2</sup> Observations 212,252

Table A.5.11 **Estimation results: Change in health status by country group, UK and Ireland** 

Estimation results. Change in health s	Odds Ratio	z-value
Male	0.957	-1.45
Female	Reference	e category
Age 15-24	Reference	e category
Age 25-54	1.000	0.00
Age 55-65	1.016	0.28
Single	Reference	e category
Married living with partner	0.998	-0.04
Not married living with partner	0.970	-0.60
Low skilled (ISCED 0-2)	0.977	-0.60
Medium skilled (ISCED 3-4)	Reference	e category
High skilled (ISCED 5)	1.000	-0.01
Number of children (<= 4) in household	1.033	1.12
Number of children (5-14 years) in household	1.009	0.49
Number of elderly (>=65 ) in household	1.006	0.12
Full-time employed partner in household	0.981	-0.52
Part-time employed partner in household	0.952	-0.98
Inactive/unemployed partner in household	Reference	e category
Employed - unemployed	1.066	0.37
Employed - education	1.004	0.03
Employed - inactive	0.885	-1.53
Unemployed - employed	1.037	0.27
Unemployed - education	0.715	-1.19
Unemployed - inactive	0.697	-1.82
Education - employed	0.910	-0.88
Education - unemployed	1.609	1.64
Education - inactive	1.226	0.85
Inactive - employed	1.179	1.76
Inactive - unemployed	1.322	1.43
Inactive - education	1.159	0.56
No transition	Reference	e category
Legislators, senior officials and managers	0.960	-0.79
Professionals	1.024	0.46
Technicians and associate professionals	1.042	0.75
Clerks	0.968	-0.63
Service workers and shop and market sales	0.994	-0.13
Skilled agricultural and fishery workers	1.036	0.20
Craft and related trades workers	0.959	-0.65
Plant and machine operators and assemblers	0.994	-0.08
Elementary occupations	0.949	-0.85
Not employed	Reference	e category
2005	1.099	2.27
2006		e category
2007	0.987	-0.42
2008	1.220	6.33
Ireland		e category
United Kingdom	1.071	2.42
Pseudo-R <sup>2</sup>		.002
Observations	36	,711

Table A.5.12

Estimation results: Change in health status – type of contract, specification 1

	Odds Ratio	z-value
No transition	Referer	nce category
Part-time - full-time	1.125	2.78
Part-time - education	0.990	-0.08
Part-time - unemployed	1.062	0.68
Part-time - inactive	0.917	-1.32
Full-time - part-time	0.939	-1.47
Full-time - education	1.118	1.11
Full-time - unemployed	0.943	-1.50
Full-time - inactive	0.812	-5.35
Unemployed - part-time	1.044	0.64
Unemployed - full-time	1.071	1.96
Education - full-time	0.935	-1.51
Education - part-time	1.003	0.04
Inactive - part-time	1.081	1.39
Inactive - full-time	1.290	4.91
Pseudo-R <sup>2</sup>	(	0.0007
Observations	62	22,052

Source: EU-SILC, own calculations. – Notes: Ordered logit model; controls included for sex, age group, partner, marital status, skill level, number of children, number of elderly in the household, employment status of the partner, occupation, country and year. z-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. Statistical significant odds ratios and t-values (5 per cent level) are in bold figures.

Table A.5.13 **Estimation results: Change in health status – type of contract, specification 2** 

Change in health status	Odds Ratio	z-value
No transition	Referen	nce category
Permanent - temporary	0.983	-0.39
Permanent - education	1.276	2.08
Permanent - unemployed	0.934	-1.43
Permanent - inactive	0.850	-4.29
Temporary - permanent	1.095	3.06
Temporary - education	0.885	-1.29
Temporary - unemployed	1.007	0.12
Temporary - inactive	0.810	-2.77
Unemployed - permanent	1.092	1.86
Unemployed - temporary	1.046	1.08
Education - permanent	1.003	0.06
Education - temporary	0.922	-1.55
Inactive - permanent	1.189	3.53
Inactive - temporary	1.148	2.27
Pseudo-R <sup>2</sup>	(	0.0007
Observations	62	22,052

Source: EU-SILC, own calculations. – Notes: Ordered logit model; controls included for sex, age group, partner, marital status, skill level, number of children, number of elderly in the household, employment status of the partner, occupation, country and year. z-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. Statistical significant odds ratios and t-values (5 per cent level) are in bold figures.

Table A.5.14

Estimation results: Change in health status – detailed labour market transitions

Estimation results: Change in health stat		our market trans
-	Odds Ratio	z-value
No transition	Reference	
Full-time permanent - full-time temporary	1.019	0.39
Full-time permanent - part-time permanent	0.974	-0.51
Full-time permanent - part-time temporary	0.774	-1.82
Full-time permanent - self-employed	1.059	1.07
Full-time permanent - unemployed	0.922	-1.54
Full-time permanent - education	1.269	1.83
Full-time permanent - inactive	0.832	-4.39
Full-time temporary - full-time permanent	1.117	3.40
Full-time temporary - part-time permanent	1.036	0.21
Full-time temporary - part-time temporary	0.881	-1.27
Full-time temporary - self-employed	0.917	-0.68
Full-time temporary - unemployed	0.978	-0.39
Full-time temporary - education	0.979	-0.14
Full-time temporary - inactive	0.719	-3.25
Part-time permanent - full-time permanent	1.096	1.75
Part-time permanent - full-time temporary	0.975	-0.13
Part-time permanent - part-time temporary	0.940	-0.50
Part-time permanent - self-employed	0.863	-1.08
Part-time permanent - unemployed	1.004	0.04
Part-time permanent - education	1.291	1.21
Part-time permanent - inactive	0.905	-1.24
Part-time temporary - full-time permanent	1.152	1.21
Part-time temporary - full-time temporary	1.265	2.38
Part-time temporary - part-time permanent	0.937	-0.71
	0.939	-0.71
Part-time temporary - self-employed	1.115	0.84
Part-time temporary - unemployed	0.802	-1.93
Part-time temporary - education	0.952	-0.44
Part-time temporary - inactive		
Self-employed - full-time permanent	1.046	0.81
Self-employed - full-time temporary	1.050	0.55
Self-employed - part-time permanent	0.873	-0.71
Self-employed - part-time temporary	1.122	0.52
Self-employed - unemployed	0.935	-0.60
Self-employed - education	1.135	0.73
Self-employed - inactive	0.871	-2.10
Unemployed - full-time permanent	1.094	1.73
Unemployed - full-time temporary	1.061	1.29
Unemployed - part-time permanent	1.102	0.89
Unemployed - part-time temporary	1.017	0.20
Unemployed - self-employed	0.955	-0.56
Education - full-time permanent	1.003	0.05
Education - full-time temporary	0.889	-1.90
Education - part-time permanent	1.013	0.11
Education - part-time temporary	1.001	0.01
Education - self-employed	1.011	0.08
Inactive - full-time permanent	1.348	4.75
Inactive - full-time temporary	1.205	2.10
Inactive - part-time permanent	1.076	1.01
Inactive - part-time temporary	1.101	1.16
Inactive - self-employed	1.226	3.46
Pseudo-R <sup>2</sup>	0.00	008
Observations	622,0	)52

Source: EU-SILC, own calculations. – Notes: Ordered logit model; controls included for sex, age group, partner, marital status, skill level, number of children, number of elderly in the household, employment status of the partner, occupation, country and year. z-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. Statistical significant odds ratios and t-values (5 per cent level) are in bold figures.

Table A.5.15. **Estimation results: Change in health status – labour market transitions** by age group

	Age 1	5-24	Age 25-54		Age 55-64		
	Odds Ratio	z-value	Odds Ratio	z-value	Odds Ratio	z-value	
Male	0.992	-0.34	1.012	1.04	0.993	-0.38	
Female	Reference	category	Reference	category	Reference	category	
Age	1.010	1.41	0.999	-1.14	0.998	-0.77	
Single	Reference	category	Reference	category	Reference	Reference category	
Married living with partner	1.087	0.78	1.000	0.00	1.001	0.06	
Not married living with partner	1.081	1.10	0.982	-0.83	0.926	-1.70	
Low skilled (ISCED 0-2)	1.011	0.36	1.021	1.50	1.018	0.89	
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category	
High skilled (ISCED 5)	0.938	-1.11	0.965	-2.36	1.015	0.55	
Number of children (<= 4) in household	1.018	0.43	0.988	-1.06	0.973	-0.61	
Number of children (5-14 years) in household	0.997	-0.16	1.007	1.06	1.009	0.34	
Number of elderly (>=65 ) in household	0.994	-0.20	0.990	-0.80	1.000	0.02	
Full-time employed partner in household	0.893	-1.21	1.002	0.10	0.969	-1.48	
Part-time employed partner in household	1.014	0.04	0.990	-0.43	0.952	-1.30	
nactive/unemployed partner in household	Reference	category	Reference	category	Reference	category	
Employed - unemployed	1.013	0.14	0.984	-0.40	0.775	-2.70	
Employed - education	1.009	0.10	1.058	0.46	0.828	-0.82	
Employed - inactive	0.837	-1.11	0.797	-5.07	0.950	-1.23	
Jnemployed - employed	1.101	1.39	1.056	1.54	0.991	-0.09	
Jnemployed - education	1.129	0.84	1.032	0.20	2.366	1.47	
Jnemployed - inactive	0.818	-1.35	0.914	-1.60	0.972	-0.35	
Education - employed	0.969	-0.67	1.014	0.22	1.681	0.99	
Education - unemployed	1.010	0.14	0.954	-0.39	0.616	-1.08	
Education - inactive	0.910	-1.00	0.771	-1.50	2.061	2.25	
nactive - employed	1.016	0.13	1.175	4.13	1.261	3.40	
nactive - unemployed	1.207	1.14	0.948	-0.84	1.119	0.77	
nactive - education	1.015	0.11	1.070	0.40	0.924	-0.17	
No transition	Reference	category	Reference	category	Reference	category	
egislators, senior officials and managers	0.913	-0.49	0.962	-1.52	0.921	-1.93	
Professionals	0.933	-0.58	1.011	0.49	0.957	-1.15	
Fechnicians and associate professionals	1.062	0.79	0.998	-0.12	0.949	-1.43	
Clerks	0.978	-0.34	1.003	0.12	0.956	-1.01	
Service workers and shop and market sales workers	0.959	-0.79	0.967	-1.59	0.926	-1.66	
Skilled agricultural and fishery workers	1.006	0.05	0.965	-1.23	0.997	-0.06	
Craft and related trades workers	0.982	-0.36	0.970	-1.47	0.951	-1.25	
Plant and machine operators and assemblers	0.998	-0.03	0.993	-0.29	0.929	-1.48	
Elementary occupations	1.019	0.23	0.978	-0.90	0.925	-1.79	
Not employed	Reference	category	Reference	category	Reference	category	
2005	1.145	3.55	1.057	3.34	1.044	1.52	
2006	Reference	category	Reference	category	Reference	category	
2007	0.993	-0.25	1.026	2.00	1.028	1.27	
2008	1.109	3.36	1.093	6.65	1.085	3.69	

## **RWI**

Table A.5.15, continued

	Age 1	Age 15-24		Age 25-54		Age 55-64	
	Odds Ratio	z-value	Odds Ratio	z-value	Odds Ratio	z-value	
Austria	Reference	Reference category Reference		category	Reference categor		
Belgium	1.136	2.24	1.037	1.29	1.014	0.30	
Bulgaria	0.718	-2.99	0.807	-3.88	0.818	-2.20	
Cyprus	1.110	2.01	1.099	3.06	0.963	-0.65	
Czech Republic	1.142	2.31	1.112	3.96	0.995	-0.12	
Germany	1.032	0.36	1.145	3.65	1.105	1.69	
Denmark	1.002	0.02	1.062	1.64	1.044	0.61	
Estonia	1.067	1.25	1.114	3.70	0.965	-0.72	
Spain	1.046	0.84	1.108	3.87	1.068	1.42	
Finland	0.940	-0.82	0.967	-0.95	0.896	-1.82	
France	1.092	1.69	1.096	3.46	1.027	0.59	
Greece	1.078	1.65	1.046	1.75	0.865	-3.01	
Hungary	1.151	2.54	1.184	5.88	1.077	1.59	
reland	1.061	0.90	1.126	3.52	0.963	-0.73	
taly	1.047	1.00	1.078	3.25	0.970	-0.78	
Lithuania	1.013	0.19	1.159	4.53	1.035	0.65	
Luxembourg	0.997	-0.04	1.022	0.60	0.950	-0.90	
Latvia	1.310	4.37	1.208	5.54	1.111	1.87	
Netherlands	1.189	1.92	1.093	2.89	0.925	-1.52	
Norway	1.066	0.78	1.080	2.35	0.955	-0.83	
Poland	1.129	2.70	1.143	5.63	1.004	0.10	
Portugal	1.195	2.84	1.158	4.69	1.064	1.19	
Romania	1.118	1.88	1.065	2.05	0.965	-0.66	
Sweden	1.006	0.08	1.150	4.20	1.086	1.46	
Slovenia	1.077	1.01	1.027	0.76	0.902	-1.75	
Slovakia	1.025	0.50	1.116	3.93	1.036	0.75	
United Kingdom	1.179	2.45	1.203	6.43	1.093	1.91	
Pseudo-R <sup>2</sup>	0.00	012	0.00	07	0.0	01	
Observations	87,6	625	394,8	17	139,6	10	

Table A.5.16 **Estimation results: Change in health status – type of contract, specification 1**by age group

	Age 1	5-24	Age 2	5-54	Age 5	5-64
Odds Ratioz-valueOdds RatioNo transitionReference categoryReferencePart-time - full-time1.0820.551.119		Odds Ratio	z-value	Odds Ratio	z-value	
No transition	Reference	category	Reference	category	Reference	category
Part-time - full-time	1.082	0.55	1.119	2.41	1.236	1.49
Part-time - education	1.018	0.13	0.901	-0.43	0.299	-1.10
Part-time - unemployed	0.809	-0.87	1.154	1.40	0.839	-0.72
Part-time - inactive	0.615	-1.26	0.952	-0.52	0.923	-0.89
Full-time - part-time	0.745	-1.79	0.946	-1.13	1.028	0.28
Full-time - education	0.980	-0.15	1.261	1.49	1.034	0.48
Full-time - unemployed	1.013	0.13	0.952	-1.06	0.767	-2.39
Full-time - inactive	0.934	-0.34	0.712	-6.02	0.938	-1.17
Unemployed - part-time	1.152	0.78	1.030	0.37	0.979	-0.11
Unemployed - full-time	1.097	1.23	1.058	1.35	1.120	0.73
Education - full-time	0.930	-1.28	0.978	-0.28	0.958	-0.94
Education - part-time	0.990	-0.11	1.083	0.59	2.204	1.26
Inactive - part-time	0.861	-0.56	1.075	1.12	1.157	1.15
Inactive - full-time	1.056	0.40	1.271	3.92	1.635	3.60
Pseudo-R <sup>2</sup>	0.00	13	0.00	08	0.00	11
Observations	87,6	25	394,8	17	139,6	10

Table A.5.17 **Estimation results: Change in health status – type of contract, specification 2**by age group

	Age 1	5-24	Age 2	5-54	Age 5	5-64
Odds Ratioz-valueOdds RatioNo transitionReference categoryReference categoryPermanent - temporary0.902-0.901.018		Odds Ratio	z-value	Odds Ratio	z-value	
Age 15-24 Odds Ratio z-value  No transition Reference category  Permanent - temporary 0.902 -0.90		category	Reference	category	Reference	category
Age 15-24           Odds Ratio         z-value         Odds           No transition         Reference category         Ref           Permanent - temporary         0.902         -0.90         1.0		1.018	0.36	0.758	-1.83	
Permanent - education	1.340	1.96	1.216	1.00	0.737	-1.03
Permanent - unemployed	0.936	-0.38	0.970	-0.55	0.763	-2.43
Permanent - inactive	0.828	-0.81	0.756	-4.96	0.971	-0.57
Temporary - permanent	1.150	1.82	1.083	2.37	1.043	0.32
Temporary - education	0.817	-1.69	1.015	0.08	1.153	1.94
Temporary - unemployed	1.013	0.12	1.019	0.28	0.808	-0.95
Temporary - inactive	0.896	-0.39	0.880	-1.27	0.651	-3.62
Unemployed - permanent	1.145	1.13	1.072	1.28	1.146	0.82
Unemployed - temporary	1.085	0.95	1.038	0.75	1.002	0.01
Education - permanent	0.978	-0.30	1.087	0.89	1.816	1.14
Education - temporary	0.929	-1.14	0.947	-0.54	3.367	0.45
Inactive - permanent	0.920	-0.43	1.163	2.67	1.429	3.13
Inactive - temporary	1.087	0.56	1.157	2.01	1.146	0.85
Pseudo-R²	0.00	14	0.00	07	0.00	11
Observations	87,6	25	394,8	17	139,6	10

Table A.5.18 **Estimation results: Change in health status – detailed labour market transitions**by age group

	Age 1	15-24	Age 2	25-54	Age 5	5-64
	Odds Ratio	z-value	Odds Ratio	z-value	Odds Ratio	z-value
No transition	Reference	category	Reference	category	Reference	category
Full-time, permanent - full-time, temporary	1.019	0.15	1.045	0.79	0.694	-2.34
Full-time, permanent - part-time, permanent	0.746	-0.97	0.972	-0.47	1.044	0.40
Full-time, permanent - part-time, temporary	0.522	-1.47	0.858	-0.97	0.649	-1.78
Full-time, permanent - self-employed	0.892	-1.08	1.093	1.49	0.880	-0.76
Full-time, permanent - unemployed	1.056	0.30	0.933	-1.12	0.785	-2.01
Full-time, permanent - education	1.145	0.67	1.357	1.72	0.980	-0.35
Full-time, permanent - inactive	0.796	-0.90	0.713	-5.41	0.975	-0.44
Full-time, temporary - full-time, permanent	1.191	2.06	1.093	2.40	1.178	1.09
Full-time, temporary - part-time, permanent	1.795	1.34	0.949	-0.27	0.635	-0.95
Full-time, temporary - part-time, temporary	0.678	-1.85	0.903	-0.88	1.665	1.19
Full-time, temporary - self-employed	1.424	0.86	0.893	-0.80	0.652	-1.48
Full-time, temporary - unemployed	1.013	0.11	0.988	-0.18	0.691	-1.43
Full-time, temporary - education	0.888	-0.67	1.131	0.43	1.159	2.02
Full-time, temporary - inactive	1.179	0.52	0.717	-2.56	0.565	-3.22
Part-time, permanent - full-time, permanent	0.952	-0.18	1.105	1.81	1.116	0.68
Part-time, permanent - full-time, temporary	0.490	-1.68	1.165	0.66	1.016	0.06
Part-time, permanent - part-time, temporary	1.035	0.09	0.907	-0.75	1.070	0.13
Part-time, permanent - self-employed	0.352	-1.86	0.844	-1.15	1.342	0.70
Part-time, permanent - unemployed	0.474	-1.62	1.185	1.41	0.651	-1.52
Part-time, permanent - education	1.496	1.90	0.920	-0.16	0.298	-1.10
Part-time, permanent - inactive	0.915	-0.16	0.874	-1.14	0.966	-0.33
Part-time, temporary - full-time, permanent	1.193	0.76	1.129	0.86	1.210	0.31
Part-time, temporary - full-time, temporary	1.474	1.64	1.162	1.33	2.691	3.14
Part-time, temporary - part-time, permanent	0.597	-2.18	1.035	0.34	0.744	-0.92
Part-time, temporary - self-employed	1.503	1.52	0.748	-1.31	2.064	1.57
Part-time, temporary - unemployed	1.007	0.03	1.133	0.79	1.224	0.49
Part-time, temporary - education	0.749	-1.83	0.892	-0.69		
Part-time, temporary - inactive	0.427	-1.75	1.159	0.98	0.764	-1.82
Self-employed - full-time, permanent	0.964	-0.19	1.049	0.74	1.047	0.41
Self-employed - full-time, temporary	0.786	-1.08	1.092	0.86	0.919	-0.34
Self-employed - part-time, permanent	0.237	-1.95	0.934	-0.30	0.725	-1.09
Self-employed - part-time, temporary	1.534	0.30	0.983	-0.07	1.920	1.63
Self-employed - unemployed	1.254	0.49	0.948	-0.42	0.679	-1.36
Self-employed - education	1.326	1.01	1.007	0.03	1.098	1.45
Self-employed - inactive	0.832	-0.42	0.817	-1.87	0.934	-0.84
Unemployed - full-time, permanent	1.086	0.69	1.092	1.44	1.122	0.54
Unemployed - full-time, temporary	1.107	1.07	1.044	0.78	1.118	0.51
Unemployed - part-time, permanent	1.451	1.01	1.025	0.21	1.190	0.66
Unemployed - part-time, temporary	1.014	0.07	1.041	0.38	0.830	-0.75
Unemployed - self-employed	0.978	-0.08	1.011	0.12	0.579	-2.38

Table A.5.18, continued

	Age 1	5-24	Age 2	5-54	Age 5	5-64
	Odds Ratio	z-value	Odds Ratio	z-value	Odds Ratio	z-value
Education - full-time, permanent	0.972	-0.38	1.079	0.68	0.960	-0.88
Education - full-time, temporary	0.904	-1.30	0.892	-1.03		
Education - part-time, permanent	0.991	-0.05	1.122	0.68	2.128	1.19
Education - part-time, temporary	0.990	-0.09	1.062	0.30	3.371	0.45
Education - self-employed	1.140	0.61	0.884	-0.68	1.259	0.18
Inactive - full-time, permanent	0.998	-0.01	1.315	3.80	1.776	3.52
Inactive - full-time, temporary	1.113	0.61	1.216	1.78	1.298	1.09
Inactive - part-time, permanent	0.766	-0.65	1.063	0.75	1.207	1.20
Inactive - part-time, temporary	1.008	0.03	1.113	1.13	1.074	0.34
Inactive - self-employed	1.436	0.90	1.229	2.95	1.180	1.53
Pseudo-R²	0.00	)22	0.00	09	0.00	15
Observations	87,6	325	394,8	17	139,6	10

Table A.5.19 **Estimation results: Change in health status – direct and indirect job changes**Job-to-iob transitions only

Job-to-job transitions only	Specific	ation 1	Specific	ation 2
Change in health status	Odds Ratio	z-value	Odds Ratio	z-value
Full-time, permanent - full-time, temporary	Reference	category	Reference	category
Full-time, permanent - part-time, permanent	0.806	-1.14	0.810	-0.51
Full-time, permanent - part-time, temporary	0.517	-1.84	0.498	-1.23
Full-time, permanent - self-employed	1.025	0.16	1.007	0.01
Full-time, temporary - full-time, permanent	1.174	1.45	1.238	0.65
Full-time, temporary - part-time, permanent	0.834	-0.29	2.631	1.66
Full-time, temporary - part-time, temporary	1.022	0.08	0.587	-2.12
Full-time, temporary - self-employed	0.919	-0.30	3.529	1.49
Part-time, permanent - full-time, permanent	1.057	0.29	0.937	-0.15
Part-time, permanent - full-time, temporary	0.714	-0.92	0.263	-2.70
Part-time, permanent - part-time, temporary	0.980	-0.07	1.215	0.57
Part-time, permanent - self-employed	0.866	-0.40	1.127	1.02
Part-time, temporary - full-time, permanent	1.193	0.57	0.576	-1.50
Part-time, temporary - full-time, temporary	1.366	1.63	1.539	1.30
Part-time, temporary - part-time, permanent	0.917	-0.28	0.943	-0.15
Part-time, temporary - self-employed	0.734	-0.81	1.089	0.14
Self-employed - full-time, permanent	1.187	1.08	0.683	-0.99
Self-employed - full-time, temporary	1.028	0.16	0.816	-0.43
Self-employed - part-time, permanent	0.927	-0.18	0.974	-0.03
Self-employed - part-time, temporary	1.370	1.01	1.051	0.06
Direct job change				
Full-time, permanent - full-time, temporary			1.270	1.72
Full-time, permanent - part-time, permanent			1.009	0.02
Full-time, permanent - part-time, temporary			1.102	0.13
Full-time, permanent - self-employed			1.049	0.10
Full-time, temporary - full-time, permanent			0.965	-0.10
Full-time, temporary - part-time, permanent			0.152	-1.99
Full-time, temporary - part-time, temporary			3.394	2.25
Full-time, temporary - self-employed			0.247	-1.57
Part-time, permanent - full-time, permanent			1.168	0.33
Part-time, permanent - full-time, temporary			4.470	2.24
Part-time, permanent - part-time, temporary			0.764	-0.57
Part-time, permanent - self-employed			0.731	-0.67
Part-time, temporary - full-time, permanent			2.671	1.90
Part-time, temporary - full-time, temporary			0.826	-0.51
Part-time, temporary - part-time, permanent			0.988	-0.02
Part-time, temporary - self-employed			0.601	-0.66
Self-employed - full-time, permanent			1.927	1.57
Self-employed - full-time, temporary			1.388	0.65
Self-employed - part-time, permanent			0.953	-0.05
Self-employed - part-time, temporary			1.491	0.47
Pseudo-R²	0.0	005	0.0	006
Observations	16,	344	16,3	344

Table A.5.20
Estimation results: Change in health status – voluntary and involuntary job changes
Job-to-job transitions only

Job-to-job transitions only	Specific	ation 1	Specific	ation 2
Change in health status	Odds Ratio	z-value	Odds Ratio	z-value
Full-time, permanent - full-time, temporary	Reference		Reference	
Full-time, permanent - part-time, permanent	0.801	-1.22	0.793	-1.28
Full-time, permanent - part-time, temporary	0.815	-0.92	0.916	-0.30
Full-time, permanent - self-employed	1.056	0.64	1.080	0.85
Full-time, temporary - full-time, permanent	1.216	2.50	1.207	1.87
Full-time, temporary - part-time, permanent	0.776	-0.79	0.718	-1.34
Full-time, temporary - part-time, temporary	0.892	-0.78	0.830	-0.73
Full-time, temporary - self-employed	1.182	0.99	1.117	0.58
Part-time, permanent - full-time, permanent	0.987	-0.08	1.007	0.04
Part-time, permanent - full-time, temporary	0.828	-0.72	0.750	-0.90
Part-time, permanent - part-time, temporary	0.956	-0.25	0.987	-0.06
Part-time, permanent - self-employed	0.827	-1.04	0.822	-0.95
Part-time, temporary - full-time, permanent	1.333	1.06	1.822	2.00
Part-time, temporary - full-time, temporary	1.108	0.61	1.308	1.22
Part-time, temporary - part-time, permanent	0.901	-0.44	0.786	-0.88
Part-time, temporary - self-employed	1.072	0.28	1.222	0.78
Self-employed - full-time, permanent	1.160	1.60	1.209	1.80
Self-employed - full-time, temporary	1.003	0.03	0.995	-0.05
Self-employed - part-time, permanent	0.968	-0.12	0.689	-1.55
Self-employed - part-time, temporary	0.928	-0.28	0.888	-0.44
Involuntary job change				
Full-time, permanent - full-time, temporary			1.546	3.17
Full-time, permanent - part-time, permanent			1.110	0.20
Full-time, permanent - part-time, temporary			0.759	-0.63
Full-time, permanent - self-employed			0.980	-0.09
Full-time, temporary - full-time, permanent			1.080	0.52
Full-time, temporary - part-time, permanent			1.339	0.33
Full-time, temporary - part-time, temporary			1.165	0.50
Full-time, temporary - self-employed			1.343	0.76
Part-time, permanent - full-time, permanent			0.977	-0.06
Part-time, permanent - full-time, temporary			1.685	1.15
Part-time, permanent - part-time, temporary			0.961	-0.12
Part-time, permanent - self-employed			1.136	0.29
Part-time, temporary - full-time, permanent			0.283	-2.66
Part-time, temporary - full-time, temporary			0.735	-0.93
Part-time, temporary - part-time, permanent			1.566	0.90
Part-time, temporary - self-employed			0.751	-0.51
Self-employed - full-time, permanent			0.916	-0.41
Self-employed - full-time, temporary			1.092	0.35
Self-employed - part-time, permanent			3.462	1.92
Self-employed - part-time, temporary			1.178	0.28
Pseudo-R <sup>2</sup>	0.0	003		004
Observations	35,4		35,4	
	35,4		33,2	10-7

Table A.5.21 **Change of monthly income by transition** in per cent

	DESTINATION	Ful	l-time	Par	t-time	Unemployed
ORIGIN		permanent	temporary	permanent	temporary	
Full-time,	Mean change	8.07	12.03	-8.40	-23.66	-42.94
permanent	Observations	55,353	1,733	375	39	450
Full-time,	Mean change	13.73	15.32	5.31	-9.55	-41.45
temporary	Observations	2,830	3,514	21	38	216
Part-time,	Mean change	25.31	38.85	6.47	13.78	-19.01
permanent	Observations	388	29	5,547	161	43
Part-time,	Mean change	44.33	37.75	18.45	10.45	6.61
temporary	Observations	67	73	234	476	20
Unemployed	Mean change	159.05	153.23	63.16	66.75	10.88
	Observations	395	424	67	70	1,607

Table A.5.22 **Change of hourly wage by transition** in per cent

	DESTINATION	Full-	time	Part-	time
ORIGIN		permanent	temporary	permanent	temporary
Full-time,	Mean change	8.76	12.49	7.85	33.24
permanent	Observations	55,351	1,733	291	36
Full-time,	Mean change	15.91	15.34	33.11	15.69
temporary	Observations	2,828	3,513	19	37
Part-time,	Mean change	18.18	-11.84	7.05	12.61
permanent	Observations	281	29	5,545	161
Part-time,	Mean change	9.07	9.63	18.82	11.21
temporary	Observations	63	70	234	476

Table A.5.23 **Estimation results: hourly wage and monthly income** 

	Hourly	wage	Monthly i	ncome
	Coefficient	t-value	Coefficient	t-value
Male	0.158	13.59	0.216	22.67
Female	Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category
Age 25-54	0.174	8.02	0.192	8.03
Age 55-65	0.223	8.67	0.237	10.36
Single	Reference	category	Reference	category
Married living with partner	0.091	5.38	0.094	5.45
Not married living with partner	0.046	3.23	0.069	3.89
Low skilled (ISCED 0-2)	-0.103	-7.46	-0.103	-8.93
Medium skilled (ISCED 3-4)	Reference	category	Reference	category
High skilled (ISCED 5)	0.164	6.34	0.158	7.49
Number of children (<= 4) in household	-0.017	-2.30	-0.016	-2.92
Number of children (5-14 years) in household	0.009	2.34	0.005	1.00
Number of elderly (>=65) in household	-0.039	-4.97	-0.049	-6.96
Full-time employed partner in household	-0.013	-1.77	-0.026	-3.28
Part-time employed partner in household	0.008	0.69	0.018	1.03
Inactive/unemployed partner in household	Reference	category	Reference	category
Full-time, permanent	Reference	category	Reference	category
Full-time, temporary	-0.196	-9.38	-0.185	-12.65
Part-time, permanent	-0.048	-1.64	-0.615	-9.30
Part-time, temporary	-0.185	-12.39	-0.834	-20.99
Jnemployed			-1.695	-24.47
Legislators, senior officials and managers	Reference	category	Reference	category
Professionals	0.009	0.40	-0.106	-3.36
Technicians and associate professionals	-0.180	-6.25	-0.255	-7.95
Clerks	-0.292	-9.79	-0.378	-11.97
Service workers and shop and market sales workers	-0.491	-13.38	-0.565	-16.99
Skilled agricultural and fishery workers	-0.600	-24.50	-0.661	-19.17
Craft and related trades workers	-0.425	-14.16	-0.491	-15.07
Plant and machine operators and assemblers	-0.383	-15.25	-0.438	-13.66
Elementary occupations	-0.532	-15.49	-0.636	-21.09
2005	-0.031	-1.44	-0.034	-1.57
2006	Reference	category	Reference	category
2007	0.051	3.96	0.048	3.65
Austria	Reference	category	Reference	category
Belgium	0.064	5.75	0.086	13.64
Bulgaria	-2.637	-415.20	-2.575	-199.25
Cyprus	-0.470	-52.57	-0.431	-34.43
Czech Republic	-1.428	-157.10	-1.385	-109.66
Estonia	-1.615	-187.58	-1.603	-159.95
Spain	-0.405	-64.30	-0.379	-37.04
Finland	0.055	6.15	0.051	5.68

Table A.5.23, continued

	Hourly	/ wage	Monthly	income
	Coefficient	t-value	Coefficient	t-value
France	-0.125	-19.67	-0.131	-22.16
Hungary	-1.662	-216.70	-1.642	-138.60
Ireland	0.074	7.00	-0.001	-0.08
Italy	-0.179	-11.98	-0.207	-13.72
Lithuania	-1.859	-189.07	-1.849	-146.79
Luxembourg	0.280	47.76	0.322	57.20
Latvia	-1.707	-104.39	-1.653	-94.28
Netherlands	0.201	19.62	0.194	18.70
Norway	0.351	46.59	0.321	43.53
Poland	-1.544	-164.15	-1.514	-116.58
Portugal	-0.824	-57.00	-0.794	-54.77
Sweden	0.012	1.32	0.070	10.86
Slovenia	-0.728	-95.50	-0.680	-49.29
Slovakia	-1.812	-198.43	-1.772	-136.28
United Kingdom	-0.038	-3.03	-0.046	-4.06
Constant	2.585	69.66	7.772	188.99
Adjusted R²	0.7	763	0.7	788
Observations	188	,314	195	,095

Table A.5.24

Overall upward and downward transitions by results of wage and income regressions

	Hourly	y wage	Monthly	income
	Total	Percentage	Total	Percentage
Upward	4,028,080	3.60	9,533,242	7.37
Downward	1,971,651	1.76	8,380,288	6.48
Neutral	4,142,645	3.70	0	0.00
No transition	101,709,256	90.93	111,434,095	86.15

Table A.5.25 Estimation Results: change in hourly wage and change in monthly income

		Change in	Change in hourly wage		J	Change in m	Change in monthly income	
	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value
Male	1.313	4.13	1.407	4.44	1.248	5.38	1.271	5.39
Female	Reference	Reference category	Reference category	category	Reference category	category	Reference category	category
Age 15-24	Reference	Reference category	Reference category	category	Reference category	category	Reference category	category
Age 25-54	-5.258	-5.38	-5.193	-5.24	-6.437	-4.89	-6.358	-4.85
Age 55-65	-6.638	-5.48	-6.597	-5.40	-8.159	-6.18	-8.116	-6.16
Single	Reference	Reference category	Reference category	category	Reference category	category	Reference category	category
Married living with partner	-1.242	-2.10	-1.296	-2.23	-1.403	-2.19	-1.395	-2.17
Not married living with partner	-1.927	-2.12	-1.980	-2.21	-2.017	-3.61	-2.005	-3.68
Low skilled (ISCED 0-2)	0.136	0.17	0.125	0.16	0.254	0.40	0.246	0.38
Medium skilled (ISCED 3-4)	Reference	Reference category	Reference category	category	Reference category	category	Reference category	category
High skilled (ISCED 5)	-0.235	-0.43	-0.273	-0.48	0.120	0.24	0.134	0.25
Number of children $(<=4)$ in household	0.734	1.25	0.754	1.32	1.033	1.82	1.020	1.77
Number of children (5-14 years) in household	0.151	0.52	0.133	0.45	0.400	1.70	0.378	1.62
Number of elderly (>=65) in household	0.956	2.37	0.938	2.36	1.023	1.46	1.020	1.46
Full-time employed partner in household	0.253	0.73	0.264	0.75	-0.138	-0.42	-0.144	-0.44
Part-time employed partner in household	-0.536	-0.90	-0.523	-0.87	-0.401	-1.20	-0.426	-1.19
No transition	Reference	Reference category	Reference category	category	Reference category	category	Reference category	category
Full-time - part-time	12.741	1.42			-15.510	-7.10		
Full-time - unemployed					-50.119	-11.23		
Part-time - full-time	-5.747	-0.43			19.698	5.32		
Part-time - unemployed					-18.402	-2.31		
Unemployed - full-time					133.307	10.37		
Unemployed - part-time					52.087	8.70		
Permanent - temporary	2.791	1.64			2.279	1.54		
Temporary - permanent	4.845	3.39			3.747	3.50		

Table A.2.25, continued

		Change in	Change in hourly wage			Change in m	Change in monthly income	
	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value
Full-time, permanent - full-time,temporary			1.816	1.01			1.891	1.21
Full-time, permanent - part-time, permanent			6.328	0.85			-14.541	-6.21
Full-time, permanent - part-time, temporary			47.651	2.09			-32.323	-6.39
Full-time, permanent - unemployed							-48.987	-11.60
Full-time, temporary - full-time, permanent			3.604	3.21			2.608	2.94
Full-time, temporary - part-time, permanent			32.468	2.42			-3.587	-0.52
Full-time, temporary - part-time, temporary			34.497	2.67			-14.399	-2.19
Full-time, temporary - unemployed							-52.293	-9.20
Part-time, permanent - full-time, temporary			-26.644	-3.05			27.578	3.24
Part-time, permanent - full-time, permanent			-2.172	-0.14			16.459	3.12
Part-time, permanent - part-time, temporary			8.102	1.75			9.791	2.41
Part-time, permanent - unemployed							-24.272	-1.45
Part-time, temporary - full-time, permanent			-6.020	-0.55			36.310	3.21
Part-time, temporary - full-time, temporary			-10.401	-0.98			29.668	3.99
Part-time, temporary - part-time, permanent			16.481	2.77			9.844	4.67
Part-time, temporary - unemployed							-13.176	-4.31
Unemployed - full-time, permanent							131.873	8.42
Unemployed - full-time, temporary							134.311	10.92
Unemployed - part-time, permanent							46.419	3.14
Unemployed - part-time, temporary							55.519	7.80
Transitions w/o change of type of contract	5.136	3.49	5.137	3.50	4.011	2.89	3.997	2.93

Table A.2.25, continued

		Change in	Change in hourly wage			Shange in m	Change in monthly income	
	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value
Unemployed					Reference category	category	Reference category	category
Legislators, senior officials and managers	Reference category	category	Reference category	category	0.131	0.07	0.111	90.0
Professionals	0.441	0.88	0.444	0.88	-3.456	-1.74	-3.485	-1.75
Technicians and associate professionals	0.111	0.12	0.062	0.07	-3.845	-1.97	-3.842	-1.98
Clerks	-0.177	-0.30	-0.230	-0.37	-3.423	-1.73	-3.433	-1.74
Service workers and shop and market sales workers	0.935	2.54	0.816	2.31	-2.765	-1.48	-2.802	-1.49
Skilled agricultural and fishery workers	-0.115	-0.04	-0.124	-0.05	-7.033	-2.84	-7.106	-2.84
Craft and related trades workers	-0.651	-0.99	-0.643	-0.98	-3.409	-1.61	-3.373	-1.61
Plant and machine operators and assemblers	0.113	0.15	0.079	0.11	-3.884	-2.01	-3.873	-2.01
Elementary occupations	1.414	0.84	1.324	0.81	-1.945	-0.88	-2.002	-0.91
2005	3.280	5.33	3.246	5.29	2.609	3.46	2.595	3.51
2006	Reference category	category	Reference category	category	Reference category	category	Reference category	category
2007	2.235	3.75	2.262	3.73	2.108	3.75	2.100	3.73
Austria	Reference category	category	Reference category	category	Reference category	category	Reference category	category
Belgium	-4.338	-27.55	-4.375	-31.03	-3.374	-15.66	-3.395	-16.65
Bulgaria	27.116	58.18	27.239	26.90	26.397	50.84	26.385	50.34
Cyprus	0.819	2.81	0.856	2.77	0.064	0.17	0.052	0.14
Czech Republic	2.699	9.25	2.775	9.38	5.768	17.79	5.791	17.17
Estonia	8.369	35.25	8.428	39.52	8.874	37.55	8.872	36.62
Spain	-0.892	-3.08	-0.837	-2.68	-0.789	-3.37	-0.785	-2.90
Finland	-2.477	-10.36	-2.440	-11.08	-1.164	-5.43	-1.176	-6.89
France	-1.731	-4.84	-1.697	-4.74	-1.505	-4.08	-1.596	-4.99

Table A.2.25, continued

		Change in	Change in hourly wage			Change in mo	Change in monthly income	
	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value
Hungary	1.160	5.31	1.218	5.45	3.165	12.55	3.179	12.89
Ireland	5.713	14.38	5.746	14.50	7.190	32.28	7.122	34.17
Italy	-6.662	-18.88	-6.706	-19.08	-4.960	-8.88	-5.004	-8.85
Lithuania	13.467	53.35	13.514	50.62	14.344	41.25	14.328	38.29
Luxembourg	-3.759	-18.55	-3.718	-17.95	-2.869	-14.79	-2.897	-14.76
Latvia	27.065	74.24	27.095	71.27	26.245	45.52	26.255	45.08
Netherlands	0.679	2.64	0.567	2.44	1.236	3.72	1.131	3.32
Norway	1.713	8.74	1.738	9.98	2.883	15.42	2.878	14.69
Poland	10.433	33.15	10.473	31.32	10.874	31.09	10.879	27.10
Portugal	-1.948	-3.43	-1.891	-3.25	-2.579	-4.13	-2.602	-4.29
Sweden	-2.669	-6.63	-2.712	-6.83	-0.765	-2.71	-0.845	-3.41
Slovenia	-0.558	-2.70	-0.460	-2.07	-0.304	-0.87	-0.300	-0.84
Slovakia	9.480	28.74	9.560	28.25	10.689	38.37	10.733	37.06
United Kingdom	-2.698	-13.44	-2.721	-13.89	-1.173	-3.47	-1.175	-3.49
Constant	11.118	11.24	11.087	10.95	14.529	7.77	14.498	99'2
Adjusted R <sup>2</sup>	0.0265	92	0.0279	62	0.1684	84	0.1689	89
Observations	94,597	269	94,597	269	100,124	24	100,124	24

Source: EU-SILC, own calculations. – Notes: t-values greater than 1.96 (2.58) in absolute terms denote statistical significance at the 5 (1) per cent level, respectively. Statistical significant odds ratios and t-values (5 per cent level) are in bold figures.

Table A.5.26

Overall upward and downward transitions by results of wage change and income change regressions

	Hourly	wage	Monthly	income
	Total	Percentage	Total	Percentage
Upward	3,150,004	2.80	9,680,556	7.48
Downward	79,343	0.07	5,661,095	4.38
Neutral	7,599,420	6.75	2,571,879	1.99
No transition	101,709,256	90.38	111,434,095	86.15

Table A.6.1 **Earnings inequality by country** 

Earnings mequanty t	MLD	Gini	p90/p10	Theil 1	Theil 2
Denmark	0.06	0.19	2.16	0.07	0.08
Belgium	0.09	0.23	2.55	0.10	0.12
Finland	0.10	0.23	2.53	0.11	0.17
Czech Republic	0.11	0.26	2.98	0.12	0.17
Italy	0.11	0.25	2.79	0.12	0.16
Netherlands	0.11	0.25	2.78	0.12	0.18
Bulgaria	0.12	0.27	3.36	0.13	0.16
Norway	0.12	0.24	2.64	0.13	0.33
Sweden	0.12	0.23	2.40	0.11	0.15
Spain	0.13	0.28	3.32	0.14	0.18
France	0.13	0.27	2.93	0.14	0.19
Romania	0.13	0.29	3.70	0.14	0.17
Slovakia	0.13	0.26	2.79	0.19	1.34
Germany	0.14	0.26	3.69	0.12	0.14
EU-SILC	0.15	0.29	3.39	0.16	0.28
Austria	0.15	0.28	3.23	0.15	0.28
Slovenia	0.15	0.30	3.35	0.17	0.25
Cyprus	0.17	0.32	3.97	0.19	0.32
Hungary	0.17	0.32	3.89	0.19	0.29
Estonia	0.18	0.34	4.34	0.20	0.27
Luxembourg	0.18	0.33	4.49	0.19	0.26
Poland	0.18	0.33	4.08	0.20	0.32
Lithuania	0.19	0.34	4.53	0.21	0.28
United Kingdom	0.19	0.33	3.83	0.22	0.48
Ireland	0.20	0.33	3.96	0.24	0.55
Latvia	0.21	0.35	5.23	0.22	0.30
Portugal	0.25	0.39	4.86	0.31	0.58

Table A.6.2 Change in single year earnings inequality when wages are averaged over four years in per cent

po. co	MLD	Gini	p90/p10	Theil 1	Theil 2
Austria	0.00	0.00	12.16	-10.00	-16.67
Belgium	-30.00	-8.70	-7.11	-36.36	-47.06
Bulgaria <sup>1</sup>	9.09	3.85	-6.38	16.67	29.41
Cyprus	18.18	12.00	26.88	8.33	-6.25
Czech Republic	-9.09	-4.00	-0.72	-8.33	-16.67
Denmark	-58.33	-29.17	-23.86	-61.54	-81.82
Estonia	41.67	43.48	72.08	72.73	73.33
Spain	-23.08	-7.14	-9.64	-21.43	-27.78
Finland	-30.77	-18.52	-15.36	-28.57	-21.05
France	-15.38	-13.79	-25.14	-14.29	-11.76
Hungary	7.69	11.54	27.96	-21.05	-85.07
Italy	-46.67	-20.69	-23.89	-43.75	-60.71
Lithuania	-13.33	3.57	11.46	-6.67	-35.71
Luxembourg	0.00	3.33	21.49	-5.88	-20.00
Latvia	17.65	9.37	27.71	10.53	-15.63
Netherlands	-52.94	-31.25	-33.16	-52.63	-65.52
Norway	-55.56	-38.24	-49.77	-50.00	-29.63
Poland	-27.78	-12.12	-22.05	-26.32	-26.92
Portugal	38.89	21.21	35.54	40.00	25.00
Sweden	-68.42	-42.42	-42.56	-68.18	-83.33
Slovenia	-30.00	-12.12	-19.95	-33.33	-54.55
Slovakia	-33.33	-22.86	-52.01	40.91	743.33
United Kingdom	-44.00	-25.64	-33.13	-45.16	-41.38

Source: EU-SILC, own calculations. – Note: <sup>1</sup>averaged over three years.

Table A.6.3

Transitions between earnings deciles by country group, gender, age group and skill level
in per cent

	Downward	transition	Same decile	Upward	transition
	two or more deciles	one decile		one decile	two or more deciles
All	9.47	16.69	45.16	17.05	11.62
Continental	7.13	14.79	53.33	16.86	7.88
Scandinavian	6.09	15.47	53.38	16.29	8.78
Mediterranean	11.12	16.05	40.56	17.60	14.67
CEE	11.60	19.59	37.41	16.64	14.75
UK & Ireland	8.57	16.11	48.68	17.77	8.88
Female	9.10	17.79	45.17	17.13	10.81
Male	9.69	16.05	45.16	17.00	12.10
Age 15-24	9.77	14.04	41.44	18.29	16.45
Age 25-54	9.47	16.74	44.90	17.30	11.59
Age 55-65	9.30	17.83	49.28	14.46	9.13
Low skilled (ISCED 0-2)	11.83	14.92	35.17	21.65	16.43
Medium skilled (ISCED 3-4)	11.19	15.56	36.11	21.30	15.84
High skilled (ISCED 5)	7.67	12.99	46.78	19.56	13.00

Table A.6.4

Transitions between earnings deciles by country in per cent

in per cent	Downward	I transition	Same decile	Upward	transition
	two or more deciles	one decile		one decile	two or more deciles
Austria	14.76	18.70	34.89	16.71	14.95
Belgium	10.88	15.54	41.26	17.85	14.47
Bulgaria	21.60	16.75	23.34	15.27	23.04
Cyprus	3.46	12.61	60.51	17.51	5.90
Czech Republic	11.10	18.49	40.35	16.69	13.37
Germany	6.39	16.52	57.28	14.69	5.12
Denmark	6.45	16.55	52.05	14.97	9.99
Estonia	12.80	24.44	35.39	14.37	13.00
Spain	12.26	16.10	37.04	17.53	17.07
Finland	3.20	14.11	59.29	16.61	6.78
France	6.26	11.15	55.53	18.88	8.17
Hungary	13.07	19.64	39.64	15.09	12.56
Ireland	5.47	13.70	50.57	18.26	12.00
Italy	8.15	15.45	48.25	18.69	9.45
Lithuania	10.51	22.48	37.15	16.79	13.07
Luxembourg	3.17	13.06	56.12	21.44	6.20
Latvia	14.60	17.62	32.99	19.42	15.36
Netherlands	2.87	14.43	59.97	17.88	4.85
Norway	7.51	16.20	49.87	16.28	10.14
Poland	8.81	16.93	40.59	18.42	15.25
Portugal	12.68	18.79	42.76	14.00	11.77
Romania	11.31	25.06	33.04	15.57	15.03
Sweden	7.47	15.34	51.73	16.91	8.55
Slovenia	6.31	15.42	52.95	16.86	8.46
Slovakia	12.56	22.01	33.54	16.32	15.57
United Kingdom	8.60	16.13	48.66	17.76	8.85

Table A.6.5 **2-year transitions between earnings deciles by country** in per cent

	Downward	I transition	Same decile	Upward	transition
	two or more deciles	one decile		one decile	two or more deciles
Austria	16.88	19.20	31.51	15.18	17.22
Belgium	10.99	13.61	36.53	19.54	19.33
Bulgaria	23.57	11.84	22.86	16.98	24.76
Cyprus	4.52	14.27	50.80	20.22	10.19
Czech Republic	13.89	19.03	33.18	16.82	17.08
Denmark	8.84	17.18	45.39	17.16	11.43
Estonia	19.17	20.05	30.52	14.12	16.15
Spain	12.74	15.46	32.12	18.56	21.12
Finland	4.50	15.89	52.52	17.76	9.33
France	4.71	6.01	48.68	30.45	10.14
Hungary	17.39	19.79	29.99	16.01	16.81
Ireland	6.25	24.52	39.87	20.03	9.34
Italy	5.69	11.06	44.92	26.91	11.43
Lithuania	15.37	22.54	28.34	15.90	17.86
Luxembourg	3.25	10.77	50.90	25.25	9.84
Latvia	10.50	16.52	33.70	22.26	17.01
Netherlands	3.64	17.39	50.12	18.55	10.30
Norway	9.51	16.94	41.38	18.52	13.66
Poland	11.98	16.84	31.72	17.69	21.77
Portugal	11.19	18.71	41.13	17.91	11.07
Sweden	9.45	17.04	42.24	18.87	12.40
Slovenia	8.74	16.93	46.06	18.31	9.96
Slovakia	17.70	20.22	29.04	15.88	17.15
United Kingdom	9.19	15.47	43.32	20.68	11.34

Table A.6.6

Earnings decile movement by country group, gender, age group and skill level

	All	Job stayers	Job changers
All	0.96	0.93	1.37
Continental	0.76	0.73	1.32
Scandinavian	0.75	0.71	1.20
Mediterranean	1.10	1.05	1.55
CEE	1.15	1.12	1.62
UK & Ireland	0.87	0.82	1.10
Female	0.94	0.91	1.27
Male	0.98	0.94	1.43
Age 15-24	1.11	1.04	1.45
Age 25-54	0.96	0.93	1.37
Age 55-65	0.88	0.87	1.24
Low skilled (ISCED 0-2)	1.05	1.01	1.49
Medium skilled (ISCED 3-4)	1.01	0.98	1.40
High skilled (ISCED 5)	0.83	0.79	1.28

Source: EU-SILC, own calculations. – Note: The decile movement is the average number of deciles (upwards and downwards) that workers move between year t-1 and year t.

Table A.6.7 **Earnings decile movement by country** 

	All	Job stayers	Job changers
Austria	1.26	1.23	1.70
Belgium	1.07	1.04	1.59
Bulgaria	1.79	1.73	2.43
Cyprus	0.54	0.51	0.94
Czech Republic	1.06	1.03	1.49
Germany	0.64	0.61	1.27
Denmark	0.78	0.73	1.40
Estonia	1.15	1.10	1.59
Spain	1.20	1.16	1.64
Finland	0.59	0.54	1.03
France	0.75	0.72	1.36
Hungary	1.11	1.08	1.46
Ireland	0.84	0.80	1.40
Italy	0.87	0.83	1.29
Lithuania	1.11	1.04	1.87
Luxembourg	0.59	0.58	0.78
Latvia	1.30	1.25	1.91
Netherlands	0.54	0.50	0.99
Norway	0.86	0.81	1.35
Poland	1.06	1.04	1.53
Portugal	1.01	0.96	1.81
Romania	1.17	1.16	1.41
Sweden	0.80	0.75	1.13
Slovenia	0.79	0.75	1.47
Slovakia	1.23	1.20	1.56
United Kingdom	0.87	0.82	1.10

Source: EU-SILC, own calculations. – Note: The decile movement is the average number of deciles (upwards and downwards) that workers move between year t-1 and year t.

Table A.6.8 **Estimation results: Up- and downward earnings transitions** 

Estimation results: Up- and do	Downward		Same	decile	Upward tr	ransition
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
Male	-0.0095	-1.66	-0.0026	-0.57	0.012	2.92
Female	Reference		Reference		Reference	
Age 15-24	Reference	• •	Reference	• •	Reference	• •
Age 25-54	-0.0010	-0.09	0.0101	0.90	-0.0092	-0.74
Age 55-65	0.0167	0.71	0.0298	1.72	-0.0465	-4.06
Single	Reference		Reference		Reference	
Married, living with partner	-0.0019	-0.35	0.0438	6.66	-0.0420	-8.96
Not married, living with partner	0.0108	1.61	-0.0170	-1.33	0.0061	0.74
Low skilled (ISCED 0-2)	0.0134	1.40	-0.0191	-1.45	0.0057	0.79
Medium skilled (ISCED 3-4)	Reference		Reference		Reference	
High skilled (ISCED 5)	-0.0472	-10.52	0.0780	8.53	-0.0308	-3.20
Number of children (<= 4) in household	0.0057	1.41	-0.0268	-5.21	0.0211	4.13
Number of children (5-14 years) in household	0.0024	0.78	0.0001	0.03	-0.0025	-1.02
Number of elderly (>=65 ) in household	0.0074	2.32	-0.0157	-3.51	0.0083	2.05
Full-time employed partner in household	0.0018	0.40	-0.0172	-2.38	0.0154	1.93
Part-time employed partner in household	-0.0033	-0.51	-0.0007	-0.05	0.0039	0.44
Inactive/unemployed partner in household	Reference		Reference		Reference	
no job change	Reference		Reference	0 ,	Reference	• •
direct job change	-0.0017	-0.13	-0.1118	-7.00	0.1135	13.20
indirect job change	0.0905	2.93	-0.1579	-5.12	0.0675	2.01
Austria	Reference		Reference		Reference	
Belgium	-0.0555	-68.69	0.0550	31.00	0.0005	0.28
Bulgaria	0.0459	8.03	-0.1308	-42.15	0.0849	11.82
Cyprus	-0.1506	-187.31	0.2451	89.65	-0.0945	-36.91
Czech Republic	-0.0362	-23.86	0.0533	25.36	-0.0171	-7.77
Germany	-0.0991	-16.19	0.2494	28.11	-0.1503	-22.35
Denmark	-0.0915	-28.60	0.1722	46.87	-0.0807	-58.65
Estonia	0.0355	9.15	0.0030	0.83	-0.0386	-19.07
Spain	-0.0411	-24.76	0.0172	9.15	0.0239	11.76
Finland	-0.1352	-71.08	0.2265	88.48	-0.0913	-52.41
France	-0.1382	-45.03	0.1917	32.97	-0.0535	-12.63
Hungary	-0.0112	-7.33	0.0515	19.60	-0.0403	-14.75
Ireland	-0.1176	-56.67	0.1311	36.15	-0.0135	-4.49
Italy	-0.0997	-17.04	0.1497	24.78	-0.0500	-10.38
Lithuania	-0.0039	-1.75	0.0188	6.48	-0.0149	-4.25
Luxembourg	-0.1438	-123.22	0.1980	74.75	-0.0543	-21.03
Latvia	-0.0184	-2.56	-0.0144	-1.95	0.0328	4.01
Netherlands	-0.1416	-126.32	0.2490	188.49	-0.1074	-76.82
Norway	-0.0802	-18.69	0.1397	32.48	-0.0595	-24.63
Poland	-0.0699	-19.38	0.0480	12.13	0.0219	3.88
Portugal	-0.0385	-5.23	0.0948	14.14	-0.0563	-11.01
Romania	0.0119	1.19	-0.0134	-1.62	0.0015	0.14
Sweden	-0.0985	-23.32	0.1876	30.42	-0.0891	-28.39
Slovenia	-0.1061	-100.86	0.1801	64.67	-0.0740	-31.05
Slovakia	0.0109	4.89	-0.0179	-6.69	0.0070	2.02
United Kingdom	-0.0730	-18.62	0.1279	22.04	-0.0549	-12.58
2005	-0.006	-0.57	-0.0034	-0.42	0.0094	0.76
2006	Reference		Reference		Reference	
2007	0.0131	1.28	-0.0131	1.21	-3.81E-06	0.00
Pseudo-R <sup>2</sup>	0.02					
Observations	158,					

Table A.6.9

Estimation Results: Up- and downward earnings transitions of stayers – Occupations as additional explanatories

	Downward	Downward transition		Same decile		ansition	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value	
Legislators, Senior officials and Managers	Reference	Reference category		category	Reference	Reference category	
Professionals	0.0184	1.17	-0.0351	-1.28	0.0167	1.20	
Technicians and Associate Professionals	0.0512	7.39	-0.1129	-5.90	0.0617	3.47	
Clerks	0.0431	3.37	-0.1098	-3.63	0.0667	3.45	
Service workers and shop and market sales workers	0.0471	3.50	-0.0985	-3.11	0.0514	2.46	
Skilled agricultural and fishery workers	0.0725	4.10	-0.1029	-3.93	0.0303	0.89	
Craft and related trades workers	0.0676	4.60	-0.1613	-5.62	0.0937	5.82	
Plant and machine operators and assemblers	0.0816	6.16	-0.1592	-5.91	0.0776	4.62	
Elementary occupations	0.0659	6.68	-0.1101	-3.63	0.0441	1.89	
Pseudo-R <sup>2</sup>	0.026	0.0261					
Observations	86,72	6					

Table A.6.10 Estimation results: Up- and downward earnings transitions – with job change

Estimation results: Op- and do	Downward transition			decile	Upward transition	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
Male	-0.0044	-0.28	-0.0401	-1.65	0.0445	3.19
Female	Reference	e category	Reference	e category	Reference	e category
Age 15-24	Reference	e category	Reference category		Reference category	
Age 25-54	0.0206	0.99	-0.0043	-0.38	-0.0163	-0.87
Age 55-65	0.0965	2.70	0.0113	0.29	-0.1077	-8.09
Single	Reference	e category	Reference	e category	Reference	e category
Married, living with partner	0.0153	0.76	0.0287	0.97	-0.044	-3.28
Not married, living with partner	0.0106	0.48	-0.0321	-1.88	0.0215	1.32
Low skilled (ISCED 0-2)	0.0038	0.31	-0.0024	-0.05	-0.0013	-0.03
Medium skilled (ISCED 3-4)	Reference	e category	Reference	e category	Reference	e category
High skilled (ISCED 5)	-0.0548	-2.03	0.0433	2.43	0.0116	0.58
Number of children (<= 4) in household	-0.0019	-0.14	-0.0068	-0.36	0.0087	0.67
Number of children (5-14 years) in household	0.0042	0.69	0.0058	0.75	-0.0100	-1.03
Number of elderly (>=65 ) in household	0.0238	2.60	-0.0273	-2.07	0.0035	0.22
Full-time employed partner in household	-0.0190	-0.59	0.0111	0.38	0.0079	0.93
Part-time employed partner in household	0.0129	0.66	0.0144	0.37	-0.0273	-1.04
Inactive/unemployed partner in household	Reference	e category		e category		e category
direct job change	-0.1122	-2.04	0.076	1.87	0.0362	1.05
indirect job change		e category		e category		e category
Austria		e category	Reference category		Reference category	
Belgium	-0.0233	-1.96	0.0026	0.25	0.0207	4.88
Bulgaria	-0.0342	-3.96	-0.1289	-11.53	0.1631	10.01
Cyprus	-0.1175	-42.84	0.1610	27.11	-0.0435	-7.36
Czech Republic	-0.0955	-26.27	0.0141	2.52	0.0814	9.60
Germany	-0.0465	-3.48	0.2003	10.90	-0.1538	-10.98
Denmark	0.0121	0.98	0.0796	4.76	-0.0916	-12.41
Estonia	0.0041	0.42	-0.0211	-3.15	0.0170	3.22
Spain	-0.0712	-15.89	0.0118	1.21	0.0595	7.14
Finland	-0.0592	-13.33	0.1422	19.02	-0.0829	-17.07
France	-0.064	-4.51	0.0018	0.09	0.0623	4.58
Hungary	0.0314	10.14	0.0692	10.82	-0.1007	-19.61
Ireland	-0.1606	-27.19	0.1088	6.54	0.0518	4.10
Italy	-0.0517	-8.14	0.1049	6.40	-0.0532	-3.01
Lithuania	-0.0209	-2.29	-0.0721	-11.66	0.0929	7.15
Luxembourg	-0.1248	-16.59	0.1704	7.82	-0.0455	-2.87
Latvia	-0.0424	-5.78	0.0314	1.59	0.0109	0.51
Netherlands	-0.0892	-13.63	0.1701	14.27	-0.0809	-13.34
Norway	-0.0269	-1.65	0.0553	2.64	-0.0284	-3.59
Poland	-0.1087	-29.80	0.0094	0.68	0.0993	6.39
Portugal	-0.0936	-14.88	0.0720	6.68	0.0216	2.46
Romania	-0.0618	-8.56	0.0763	2.45	-0.0145	-0.46
Sweden	-0.0099	-0.56	0.0863	4.77	-0.0765	-10.35
Slovenia	-0.1166	-31.82	0.0721	13.42	0.0445	9.87
Slovakia	-0.0137	-2.64	0.0122	2.49	0.0015	0.17
United Kingdom	-0.07	-4.12	0.1130	7.46	-0.0429	-5.67
2005	-0.0324	-1.50	-0.0279	-1.97	0.0603	2.01
2006		e category		e category		e category
2007	0.0075	0.60	-0.0614	-2.35	0.0538	2.45
Pseudo-R <sup>2</sup>	0.0					
Observations		600				

Table A.6.11
Estimation results: Up- and downward earnings transitions, Continental Europe

	Downward		Same	•	Upward t	ransition
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
Male	0.0042	0.60	-0.002	-0.43	-0.0022	-0.74
Female	Reference	category	Reference	category	Reference category	
Age 15-24	Reference	category	Reference	category	Reference	category
Age 25-54	0.0235	1.49	-0.003	-0.10	-0.0205	-1.10
Age 55-65	0.0312	1.41	0.000	0.00	-0.0312	-3.23
Single	Reference	category	Reference	category	Reference	category
Married, living with partner	0.0074	0.37	0.0369	1.96	-0.0443	-3.92
Not married, living with partner	0.0233	4.91	-0.0447	-3.04	0.0214	1.63
Low skilled (ISCED 0-2)	0.0159	0.84	-0.0076	-0.31	-0.0083	-0.49
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category
High skilled (ISCED 5)	-0.0561	-11.02	0.0613	17.55	-0.0052	-0.81
Number of children (<= 4) in household	0.0122	1.57	-0.0386	-4.66	0.0264	7.94
Number of children (5-14 years) in household	0.0005	0.08	0.0009	0.10	-0.0014	-0.23
Number of elderly (>=65 ) in household	0.0116	0.73	-0.0223	-1.70	0.0107	1.00
Full-time employed partner in household	-0.0115	-1.48	-0.0071	-0.53	0.0187	2.52
Part-time employed partner in household	-0.0184	-1.25	0.0007	0.04	0.0177	1.46
Inactive/unemployed partner in household	Reference	category	Reference category		Reference category	
no job change	Reference	category	Reference	category	Reference category	
direct job change	0.0567	6.15	-0.187	-12.87	0.1304	8.36
indirect job change	0.0661	3.48	-0.1945	-3.60	0.1284	2.02
Austria	Reference	category	Reference	category	Reference	category
Belgium	-0.0501	-59.64	0.0590	39.23	-0.0088	-7.89
Germany	-0.0641	-4.29	0.2216	9.72	-0.1575	-14.95
France	-0.1278	-35.17	0.1983	18.90	-0.0705	-9.19
Luxembourg	-0.1303	-99.47	0.1886	53.59	-0.0582	-17.44
Netherlands	-0.1307	-87.13	0.2402	139.90	-0.1094	-106.73
2005	-0.0104	-2.65	0.0166	0.74	-0.0061	-0.29
2006	Reference	category	Reference	category	Reference	category
2007	0.0525	5.66	-0.025	-2.38	-0.0275	-2.54
Pseudo-R <sup>2</sup>	0.02	39				
Observations	34,2	96				

Table A.6.12
Estimation results: Up- and downward earnings transitions, Scandinavia

Estimation results. Op- and do	Downward		Same o		Upward tr	ansition
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
Male	0.0181	1.28	-0.0421	-2.14	0.024	2.42
Female	Reference	category	Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category	Reference	category
Age 25-54	0.0322	1.64	-0.013	-0.51	-0.0192	-1.46
Age 55-65	0.0327	2.52	0.0277	0.78	-0.0605	-2.50
Single	Reference	category	Reference	category	Reference	category
Married, living with partner	-0.0052	-0.33	0.0363	2.38	-0.0311	-4.01
Not married, living with partner	0.0172	2.35	-0.0297	-1.98	0.0126	0.82
Low skilled (ISCED 0-2)	-0.0175	-6.15	0.0307	2.21	-0.0132	-0.96
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference category	
High skilled (ISCED 5)	-0.0258	-1.68	0.0738	3.31	-0.048	-4.51
Number of children (<= 4) in household	-0.0037	-0.22	-0.0452	-2.70	0.0489	4.94
Number of children (5-14 years) in household	-0.0134	-5.64	0.013	3.10	0.0004	0.14
Number of elderly (>=65 ) in household	-0.0346	-1.14	0.0524	1.68	-0.0178	-1.67
Full-time employed partner in household	0.0058	0.41	0.0006	0.04	-0.0064	-1.31
Part-time employed partner in household	-0.0196	-1.32	0.0351	2.28	-0.0156	-0.74
Inactive/unemployed partner in household	Reference	category	Reference category		Reference category	
no job change	Reference	category	Reference	category	Reference	category
direct job change	0.0937	4.84	-0.1728	-16.05	0.0791	4.00
indirect job change	0.1927	6.58	-0.3234	-6.92	0.1307	2.15
Denmark	Reference	category	Reference	category	Reference	category
Finland	-0.0607	-7.67	0.0593	9.30	0.0014	0.28
Norway	-0.0058	-0.54	-0.0299	-7.07	0.0357	4.46
Sweden	-0.0231	-12.81	0.0288	4.86	-0.0058	-0.99
2005	0.0022	0.10	0.0157	0.73	-0.0179	-1.46
2006	Reference	category	Reference	category	Reference	category
2007	0.0041	0.34	-0.017	-0.74	0.0129	0.71
Pseudo-R <sup>2</sup>	0.01	96				
Observations	12,1	70				

Table A.6.13 **Estimation results: Up- and downward earnings transitions, Mediterranean** 

•	Downward	transition	Same	decile	Upward tr	ansition
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
Male	-0.029	-0.88	-0.0072	-0.38	0.0363	2.54
Female	Reference	category	Reference	category	Reference category	
Age 15-24	Reference	category	Reference	category	Reference	category
Age 25-54	-0.0363	-3.15	0.0252	4.44	0.0111	1.82
Age 55-65	-0.0348	-0.63	0.0777	2.23	-0.0428	-2.06
Single	Reference	category	Reference	category	Reference	category
Married, living with partner	0.0003	0.03	0.056	5.07	-0.0564	-9.86
Not married, living with partner	-0.0262	-7.13	0.04	2.03	-0.0138	-0.60
Low skilled (ISCED 0-2)	0.0364	1.74	-0.049	-3.02	0.0125	1.45
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category
High skilled (ISCED 5)	-0.0278	-4.44	0.0776	11.92	-0.0498	-25.88
Number of children (<= 4) in household	0.0126	7.45	-0.0215	-2.10	0.0089	0.76
Number of children (5-14 years) in household	0.0062	1.35	-0.0028	-0.34	-0.0033	-0.79
Number of elderly (>=65 ) in household	0.0079	1.18	-0.011	-1.84	0.0031	0.52
Full-time employed partner in household	0.0174	2.85	-0.0147	-12.75	-0.0027	-0.43
Part-time employed partner in household	0.0189	3.25	-0.0458	-1.90	0.0269	1.47
Inactive/unemployed partner in household	Reference	category	Reference	category	Reference category	
no job change	Reference	category	Reference	category	Reference	category
direct job change	-0.0088	-0.32	-0.1025	-5.69	0.1113	10.23
indirect job change	0.0155	0.50	-0.0794	-3.18	0.0638	1.14
Cyprus	Reference	category	Reference	category	Reference	category
Spain	0.1368	22.00	-0.2333	-40.40	0.0965	96.60
Italy	0.0694	35.59	-0.1041	-21.35	0.0347	8.93
Portugal	0.1466	38.08	-0.1499	-30.67	0.0033	0.97
2005	-0.0249	-8.99	-0.0097	-4.51	0.0345	30.29
2006	Reference	category	Reference	category	Reference	category
2007	0.0186	3.35	-0.0061	-1.79	-0.0125	-3.79
Pseudo-R²	0.01	57				
Observations	30,02	29				

Table A.6.14
Estimation results: Up- and downward earnings transitions, CEE

Estimation results. Op- and do	Downward		Same		Upward tr	ansition
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
Male	-0.0121	-3.37	0.0032	0.95	0.0089	1.44
Female	Reference category		Reference category		Reference category	
Age 15-24	Reference	category	Reference	category	Reference	category
Age 25-54	0.0105	1.89	-0.0113	-0.72	0.0007	0.04
Age 55-65	0.0438	3.24	-0.0077	-0.46	-0.0361	-3.05
Single	Reference	category	Reference	category	Reference	category
Married, living with partner	-0.0004	-0.05	0.0366	7.29	-0.0362	-5.16
Not married, living with partner	0.0106	1.27	0.0142	1.10	-0.0248	-3.01
Low skilled (ISCED 0-2)	-0.0083	-0.85	0.0047	0.25	0.0036	0.38
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category
High skilled (ISCED 5)	-0.0567	-4.45	0.1219	8.61	-0.0653	-10.86
Number of children (<= 4) in household	-0.0110	-2.23	-0.0129	-2.33	0.0238	2.65
Number of children (5-14 years) in household	0.0009	0.16	0.0004	0.08	-0.0012	-0.29
Number of elderly (>=65 ) in household	0.0035	1.17	-0.0104	-1.56	0.0070	1.09
Full-time employed partner in household	0.0029	0.36	-0.0124	-1.82	0.0096	2.69
Part-time employed partner in household	0.0025	0.15	-0.0017	-0.12	-0.0008	-0.06
Inactive/unemployed partner in household	Reference	category	Reference	category	Reference	category
no job change	Reference	category	Reference category		Reference category	
direct job change	-0.0427	-2.91	-0.0831	-6.18	0.1258	4.94
indirect job change	0.0629	4.99	-0.091	-2.59	0.0281	0.98
Bulgaria	Reference	category	Reference	category	Reference	category
Czech Republic	-0.1065	-26.20	0.1994	40.81	-0.0929	-17.02
Estonia	-0.0388	-6.14	0.1435	19.21	-0.1047	-18.27
Hungary	-0.0805	-16.49	0.1935	62.57	-0.1130	-21.96
Lithuania	-0.0718	-16.60	0.1618	76.84	-0.0900	-19.11
Latvia	-0.0683	-5.04	0.1201	8.23	-0.0518	-31.90
Poland	-0.1303	-43.23	0.1861	85.62	-0.0558	-16.07
Romania	-0.0348	-2.06	0.1188	5.53	-0.0840	-15.30
Slovenia	-0.1723	-49.75	0.3163	39.19	-0.1440	-26.49
Slovakia	-0.0576	-12.06	0.1290	57.29	-0.0714	-12.90
2005	0.0260	1.37	-0.0231	-2.55	-0.0029	-0.17
2006	Reference	category	Reference	category	Reference	category
2007	0.0023	0.08	-0.0089	-0.29	0.0066	1.45
Pseudo-R²	0.01	27				
Observations	75,6	80				

Table A.6.15 **Estimation results: Up- and downward earnings transitions, UK and Ireland** 

•	Downward	transition	Same	decile	Upward to	ansition
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
Male	-0.0158	-6.71	0.0084	254.55	0.0074	3.10
Female	Reference	category	Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category	Reference	category
Age 25-54	0.0287	25.42	0.0710	33.18	-0.0997	-98.52
Age 55-65	0.0653	21.70	0.0472	13.57	-0.1126	-241.11
Single	Reference	category	Reference	category	Reference	category
Married, living with partner	-0.0252	-70.99	0.0451	73.33	-0.0199	-74.81
Not married, living with partner	0.0130	200.00	-0.0252	-110.53	0.0122	41.22
Low skilled (ISCED 0-2)	0.0202	9.43	0.0009	1.66	-0.0211	-13.19
Medium skilled (ISCED 3-4)	Reference	category	Reference	Reference category		category
High skilled (ISCED 5)	-0.0466	-59.97	0.0586	70.26	-0.0119	-7.39
Number of children (<= 4) in household	0.0120	37.27	-0.0275	-6.48	0.0155	3.40
Number of children (5-14 years) in household	0.0115	239.58	-0.0083	-207.50	-0.0032	-400.00
Number of elderly (>=65 ) in household	0.0281	453.23	-0.0461	-23.52	0.0180	8.90
Full-time employed partner in household	0.0072	20.45	-0.0384	-166.96	0.0312	257.85
Part-time employed partner in household	-0.0057	-4.45	0.0188	22.93	-0.0131	-6.24
Inactive/unemployed partner in household	Reference	category	Reference	category	Reference	category
no job change	Reference	category	Reference	category	Reference	category
direct job change	-0.0242	-23.45	-0.0646	-272.57	0.0887	111.57
indirect job change	0.5331	46.82	-0.3395	-44.72	-0.1936	-10.21
Ireland	Reference	category	Reference	category	Reference	category
United Kingdom	0.0797	488.96	-0.0050	-5.40	-0.0747	-97.90
2005	0.2085	186.83	-0.0128	-9.72	-0.1957	-973.63
2006	Reference	category	Reference	category	Reference	category
2007	-0.0018	-9.63	-0.0153	-24.84	0.0172	40.09
Pseudo-R²	0.015					
Observations	6,553					

Table A.6.16
Estimation results: 2-year up- and downward earnings transitions

Estimation results: 2-year up-		d transition		decile	Upward transition	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
Male	-0.0260	-3.45	0.0209	2.21	0.0051	0.51
Female	Reference	e category	Reference	e category	Reference	category
Age 15-24	Reference	Reference category		e category	Reference	category
Age 25-54	0.0106	1.03	0.0373	2.77	-0.0479	-3.42
Age 55-65	0.0460	1.77	0.0279	1.29	-0.0739	-8.80
Single	Reference	e category	Reference	category	Reference	category
Married, living with partner	0.0140	1.76	0.0349	3.81	-0.0489	-6.58
Not married, living with partner	0.0060	0.88	-0.0107	-0.99	0.0047	0.50
Low skilled (ISCED 0-2)	0.0027	0.25	-0.0232	-2.42	0.0205	2.02
Medium skilled (ISCED 3-4)	Reference	e category	Reference	e category	Reference	category
High skilled (ISCED 5)	-0.0232	-3.04	0.0266	5.39	-0.0035	-0.43
Number of children (<= 4) in household	0.0047	0.55	-0.0373	-4.30	0.0326	2.99
Number of children (5-14 years) in household	-0.0021	-0.45	0.0038	0.81	-0.0017	-0.41
Number of elderly (>=65 ) in household	0.0102	1.24	-0.0273	-2.84	0.0171	1.81
Full-time employed partner in household	-0.0185	-2.17	-0.0180	-2.75	0.0365	3.38
Part-time employed partner in household	-0.0056	-0.41	-0.0217	-1.71	0.0273	1.59
Inactive/unemployed partner in household	Reference	e category	Reference	e category	Reference category	
no job change	Reference	e category	Reference	e category	Reference	category
direct job change	0.0137	0.67	-0.0629	-1.33	0.0492	0.83
indirect job change	-0.0045	-0.43	-0.1047	-14.69	0.1092	9.72
Austria	Reference	e category	Reference category		Reference	category
Belgium	-0.0823	-95.92	0.0304	34.66	0.052	39.01
Bulgaria	-0.0089	-1.95	-0.0912	-12.66	0.1001	10.78
Cyprus	-0.1291	-76.66	0.1824	35.50	-0.0534	-10.90
Czech Republic	-0.0281	-13.92	0.0172	4.90	0.0109	3.04
Denmark	-0.0787	-27.97	0.1714	33.10	-0.0927	-22.22
Estonia	0.0245	5.99	-0.0020	-0.55	-0.0225	-7.83
Spain	-0.0581	-23.94	-0.0055	-4.39	0.0636	23.54
Finland	-0.1156	-87.64	0.202	126.73	-0.0864	-61.71
France	-0.2075	-109.50	0.1321	24.19	0.0754	12.93
Hungary	0.0055	2.22	-0.0089	-2.18	0.0034	0.78
Ireland	0.7603	1638.58	-0.394	-665.54	-0.3663	-934.44
Italy	-0.1506	-152.89	0.1298	60.80	0.0208	10.95
Lithuania	0.0121	3.60	-0.031	-6.62	0.0189	3.52
Luxembourg	-0.1573	-109.24	0.1592	24.59	-0.0019	-0.26
Latvia	-0.0718	-23.27	0.0141	3.48	0.0576	13.45
Netherlands	-0.1123	-49.04	0.1919	98.87	-0.0796	-43.81
Norway	-0.0682	-18.22	0.0767	13.70	-0.0085	-1.87
Poland	-0.0596	-24.92	-0.0157	-4.41	0.0753	21.21
Portugal	-0.0576	-22.96	0.112	34.64	-0.0544	-29.22
Sweden	-0.075	-40.54	0.1352	63.56	-0.0601	-27.26
Slovenia	-0.0838	-42.93	0.1565	34.65	-0.0727	-17.19
Slovakia	0.0119	3.87	-0.0191	-4.08	0.0072	1.41
United Kingdom	-0.0826	-19.51	0.1046	17.32	-0.0221	-3.94
Pseudo-R <sup>2</sup>	0.	033				
Observations	61,	103				

Table A.6.17
Estimation results: Up- and downward earnings transitions – previous change as additional explanatories

	Downward	Downward transition		decile	Upward transition	
	Marg. Effect	t-value	Marg. Effect	t-value	Marg. Effect	t-value
Downward transition before	-0.0644	-9.90	-0.1963	-12.64	0.2607	19.30
No transition before	Reference	category	Reference	category	Reference	category
Jpward transition before	0.1965	15.62	-0.1600	-15.43	-0.0364	-3.05
<i>f</i> lale	-0.0069	-0.85	-0.0083	-0.76	0.0152	3.22
- Female	Reference	category	Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category	Reference	category
Age 25-54	0.0206	0.67	0.0386	1.64	-0.0592	-3.36
ge 55-65	0.0202	0.50	0.0808	2.20	-0.1010	-7.10
- Single	Reference	category	Reference	category	Reference	category
Married, living with partner	0.0020	0.39	0.0369	3.94	-0.0389	-4.24
lot married, living with partner	-0.0129	-1.15	-0.0004	-0.03	0.0133	0.86
ow skilled (ISCED 0-2)	0.0194	1.38	-0.0082	-0.38	-0.0113	-0.95
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category
ligh skilled (ISCED 5)	-0.0509	-5.10	0.0919	8.72	-0.0410	-5.15
lumber of children (<= 4) in household	0.0067	0.82	-0.0176	-2.70	0.0110	1.04
lumber of children (5-14 years) in household	-0.0043	-1.17	0.0112	2.89	-0.0069	-1.26
lumber of elderly (>=65 ) in household	0.0043	1.02	-0.0129	-1.92	0.0086	1.03
ull-time employed partner in household	-0.0087	-0.96	-0.0035	-1.15	0.0122	1.31
art-time employed partner in household	-0.0055	-0.72	0.0135	0.67	-0.0080	-0.46
nactive/unemployed partner in household	Reference	Reference category		category	Reference	category
o job change	Reference	category	Reference	category	Reference	category
irect job change	0.0062	0.70	-0.1313	-10.75	0.1251	9.74
ndirect job change	0.0642	1.02	-0.2106	-4.30	0.1465	1.38
ustria	Reference	category	Reference	category	Reference	category
elgium	-0.0755	-34.60	0.0406	13.54	0.0349	14.90
ulgaria	0.0267	2.94	-0.1349	-18.68	0.1083	9.72
Syprus	-0.1771	-199.89	0.2427	58.09	-0.0656	-14.80
Zzech Republic	-0.0572	-13.86	0.0616	9.37	-0.0044	-0.90
enmark	-0.1039	-20.30	0.2009	75.33	-0.0970	-22.00
stonia	0.0401	7.89	0.0140	2.46	-0.0541	-10.55
pain	-0.0701	-11.10	0.0204	3.78	0.0498	9.41
inland	-0.1323	-60.77	0.1846	49.42	-0.0523	-14.41
ungary	-0.0457	-16.45	0.0236	4.85	0.0221	5.02
eland	-0.1877	-67.74	0.2904	50.64	-0.1027	-17.12
ithuania	-0.0247	-7.40	0.0064	1.20	0.0183	3.93
uxembourg	-0.1636	-80.87	0.2093	67.32	-0.0456	-12.27
letherlands	-0.1377	-43.36	0.1850	29.06	-0.0474	-6.91
lorway	-0.1035	-40.13	0.1212	36.75	-0.0177	-5.81
oland	-0.0682	-11.27	0.0309	3.63	0.0373	3.73
weden	-0.0910	-33.14	0.1356	24.68	-0.0446	-10.23
lovenia	-0.1143	-42.22	0.1647	28.05	-0.0503	-10.68
lovakia	0.0103	2.63	0.0100	1.73	-0.0203	-4.87
Inited Kingdom	-0.0954	-14.53	0.1186	22.44	-0.0232	-4.37
006	Reference		Reference		Reference	
007	0.0015	0.11	-0.0007	-0.09	-0.0008	-0.07
rseudo-R²		732				
Observations		,370				

Table A.6.18 **Estimation results: Distance of earnings transitions** 

Estimation results: Distan	Al		Dov	wn	Up		
	Odds Ratio	t-value	Odds Ratio	t-value	Odds Ratio	t-value	
Male	1.0569	2.78	0.8406	-4.75	1.1511	4.46	
Female	Reference	category	Reference	Reference category		category	
Age 15-24	Reference	Reference category		category	Reference category		
Age 25-54	0.9806	-0.43	1.0735	1.24	0.8691	-4.14	
Age 55-65	0.8706	-1.81	1.2311	3.01	0.8748	-2.18	
Single	Reference	category	Reference	category	Reference	category	
Married, living with partner	0.9037	-4.02	1.0255	1.02	0.9014	-2.16	
Not married, living with partner	0.9981	-0.08	1.0535	0.83	0.9654	-0.51	
Low skilled (ISCED 0-2)	0.9785	-0.78	0.9052	-2.30	1.0120	0.20	
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category	
High skilled (ISCED 5)	1.0305	0.95	1.0751	2.28	0.8822	-1.81	
no job change	Reference	category	Reference	category	Reference	category	
direct job change	1.4095	7.93	0.6392	-5.95	1.6602	5.96	
indirect job change	0.9277	-0.36	0.3335	-3.86	2.2235	7.21	
Austria	Reference	category	Reference	category	Reference	category	
Belgium	1.2152	18.37	1.1511	21.41	0.8779	-11.63	
Bulgaria	1.0888	3.44	0.5935	-18.09	1.7151	21.72	
Cyprus	1.2434	18.49	3.2170	36.45	0.3420	-100.56	
Czech Republic	1.0852	9.23	1.2495	19.65	0.8605	-14.43	
Germany	0.8833	-3.13	2.1332	15.45	0.3499	-33.62	
Denmark	1.0959	6.75	2.1348	25.11	0.7128	-36.83	
Estonia	0.8363	-11.67	1.4603	33.73	1.0568	7.20	
Spain	1.2597	15.80	1.1024	5.82	1.0474	2.81	
Finland	1.1980	10.22	3.4226	83.38	0.4730	-73.71	
France	1.2900	15.55	1.3257	7.10	0.4900	-50.28	
Hungary	0.9296	-5.19	1.1652	8.03	0.9388	-6.88	
Ireland	1.4475	16.22	2.0080	41.95	0.8327	-9.00	
Italy	1.1791	5.44	1.3643	5.96	0.5269	-18.68	
Lithuania	1.0027	0.20	1.5905	23.57	0.8385	-13.98	
Luxembourg	1.3316	10.86	3.1999	45.78	0.3272	-57.98	
Latvia	1.1348	3.99	0.8013	-4.59	0.8743	-3.56	
Netherlands	1.1433	11.74	4.4557	70.51	0.2615	-86.16	
Norway	1.1187	4.49	1.5596	16.71	0.7216	-19.56	
Poland	1.3645	14.20	1.4081	19.16	0.9272	-3.23	
Portugal	0.9634	-1.02	1.0827	1.37	0.8442	-4.76	
Romania	0.9929	-0.13	1.6877	9.73	1.0435	0.93	
Sweden	1.0556	3.17	1.6349	17.94	0.5144	-33.02	
Slovenia	1.1576	17.75	1.7596	55.92	0.5716	-59.67	
Slovakia	1.0133	1.05	1.3280	15.70	1.0424	3.76	
United Kingdom	1.0711	3.77	1.3776	10.42	0.5516	-24.68	
2005	1.0387	0.68	1.0455	0.61	0.9584	-1.09	
2006	Reference	category	Reference	category	Reference	category	
2007	0.9803	-0.59	1.1427	1.50	1.0045	0.15	
Pseudo-R <sup>2</sup>	0.0	021	0.0	0146	0	.021	
Observations	158	728	43	,248	45	,790	

Table A.6.19 **Estimation results: Distance of earnings transitions, Continental Europe** 

Louination results. Distai	All		Dow	/n	Up	)
	Odds Ratio	t-value	Odds Ratio	t-value	Odds Ratio	t-value
Male	0.9905	-0.43	0.9210	-0.73	1.1132	1.27
Female	Reference	category	Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category	Reference	category
Age 25-54	0.9088	-1.60	1.0318	0.21	0.7791	-3.77
Age 55-65	0.8572	-5.26	1.2532	2.03	0.8445	-11.51
Single	Reference	category	Reference	category	Reference	category
Married, living with partner	0.8691	-2.17	1.0027	0.03	0.9462	-0.67
Not married, living with partner	1.0393	1.41	1.1839	1.05	1.0234	0.55
Low skilled (ISCED 0-2)	0.9413	-0.77	0.8396	-1.69	1.1115	0.91
Medium skilled (ISCED 3-4)	Reference	category	Reference category		Reference category	
High skilled (ISCED 5)	1.1755	6.85	1.1449	1.08	1.1100	0.91
no job change	Reference	category	Reference category		Reference category	
direct job change	1.3761	3.31	0.4865	-3.83	2.3845	4.40
indirect job change	1.2702	0.89	0.5350	-1.69	2.1385	3.51
Austria	Reference	category	Reference	category	Reference	category
Belgium	1.2580	11.12	1.1334	26.58	0.8416	-9.26
Germany	0.7851	-4.88	1.8117	5.48	0.3538	-14.15
France	1.2309	7.41	1.1895	6.73	0.4641	-19.91
Luxembourg	1.4546	9.22	3.2717	28.75	0.3184	-46.15
Netherlands	1.1411	4.47	4.1071	38.67	0.2504	-42.35
2005	1.0041	0.05	1.0463	0.51	0.9420	-0.71
2006	Reference	category	Reference category		Reference	category
2007	0.7570	-3.43	0.8439	-3.35	0.9907	-0.17
Pseudo-R <sup>2</sup>	0.0	037	0.0	198	0.0259	
Observations	32,	296	7,	795	9,	433

Table A.6.20 Estimation results: Distance of earnings transitions, Scandinavia

Estimation results: Dist			· · · · · · · · · · · · · · · · · · ·			
	Al	I	Dov	vn	Up	)
	Odds Ratio	t-value	Odds Ratio	t-value	Odds Ratio	t-value
Male	1.0459	1.13	1.1297	2.78	0.9277	-0.79
Female	Reference	category	Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category	Reference	category
Age 25-54	0.8410	-2.51	1.0221	0.80	0.6719	-3.56
Age 55-65	0.7434	-5.23	1.6054	2.10	0.7304	-1.10
Single	Reference	category	Reference	category	Reference	category
Married, living with partner	0.9433	-1.14	0.7874	-2.21	0.8177	-2.69
Not married, living with partner	1.0140	0.26	0.7572	-2.20	0.9882	-0.13
Low skilled (ISCED 0-2)	0.9996	-0.01	0.8492	-0.69	1.0915	0.27
Medium skilled (ISCED 3-4)	Reference	category	Reference category		Reference category	
High skilled (ISCED 5)	0.9400	-1.75	0.9115	-0.98	0.9345	-0.94
no job change	Reference	category	Reference category		Reference category	
direct job change	1.0175	0.15	0.6499	-3.48	1.8746	5.02
indirect job change	0.6880	-1.02	0.1293	-4.91	3.0541	2.24
Denmark	Reference	category	Reference	category	Reference	category
Finland	1.1695	5.33	1.7679	8.15	0.7287	-11.23
Sweden	1.1243	2.72	0.8225	-3.28	1.1828	3.16
Norway	1.0297	1.90	0.9103	-1.05	0.7571	-6.99
2005	0.9321	-0.98	1.0772	0.72	0.7639	-2.47
2006	Reference	category	Reference	category	Reference	category
2007	1.0183	0.41	0.9134	-0.40	0.8780	-0.99
Pseudo-R <sup>2</sup>	0.0	015	0.0	297	0.0	167
Observations	12,	170	2,	563	2,	967

Table A.6.21 **Estimation results: Distance of earnings transitions, Mediterranean** 

	Al	All		Down		Up	
	Odds Ratio	t-value	Odds Ratio	t-value	Odds Ratio	t-value	
Male	1.1512	1.50	0.7549	-2.90	1.0678	2.13	
Female	Reference	Reference category		Reference category		Reference category	
Age 15-24	Reference	Reference category		Reference category		Reference category	
Age 25-54	1.0957	1.62	1.2145	2.87	0.9314	-2.09	
Age 55-65	1.0097	0.05	1.4951	4.04	0.9220	-0.88	
Single	Reference	Reference category		Reference category		Reference category	
Married, living with partner	0.8408	-5.39	1.0231	1.35	0.8004	-3.65	
Not married, living with partner	0.9776	-0.27	1.0038	0.04	0.7431	-3.91	
Low skilled (ISCED 0-2)	0.9416	-0.84	0.8262	-4.22	0.9548	-0.46	
Medium skilled (ISCED 3-4)	Reference	Reference category		Reference category		Reference category	
High skilled (ISCED 5)	0.9227	-2.88	1.0372	1.00	0.7492	-3.75	
no job change	Reference	Reference category		Reference category		Reference category	
direct job change	1.4225	3.48	0.5367	-29.09	1.6125	7.84	
indirect job change	1.2159	0.73	0.5185	-4.55	2.7447	4.65	
Cyprus	Reference	Reference category		Reference category		Reference category	
Spain	0.9966	-0.46	0.3482	-19.94	3.1282	120.91	
Italy	0.9792	-1.39	0.4142	-38.90	1.4220	18.55	
Portugal	0.8435	-14.54	0.3263	-45.70	2.3048	36.37	
2005	1.1544	24.52	1.0554	3.41	0.9311	-8.25	
2006	Reference	Reference category		Reference category		Reference category	
2007	0.9512	-2.41	1.1904	28.34	1.0846	6.80	
Pseudo-R <sup>2</sup>	0.0	0.0023		0.0096		0.0157	
Observations	30,	30,029		7,342		8,868	

Table A.6.22 **Estimation results: Distance of earnings transitions, CEE** 

Latination results. Distai	All		Dov	vn	Up	)	
	Odds Ratio	t-value	Odds Ratio	t-value	Odds Ratio	t-value	
Male	1.0574	2.82	0.8103	-6.16	1.2233	3.81	
Female	Reference category		Reference	category	Reference	Reference category	
Age 15-24	Reference	category	Reference	category	Reference	category	
Age 25-54	0.9719	-0.77	0.9417	-0.57	0.9611	-0.46	
Age 55-65	0.8264	-4.24	0.9650	-0.59	0.7764	-2.04	
Single	Reference	category	Reference	category	Reference	category	
Married, living with partner	0.9327	-2.78	1.0541	1.95	0.9143	-1.74	
Not married, living with partner	0.9243	-2.41	0.9760	-0.27	0.9782	-0.35	
Low skilled (ISCED 0-2)	1.0419	2.37	0.9515	-0.96	1.2112	2.24	
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category	
High skilled (ISCED 5)	0.9767	-0.81	1.0346	0.46	0.9379	-1.33	
no job change	Reference	category	Reference	category	Reference	category	
direct job change	1.5799	4.38	0.7768	-3.96	1.6528	5.37	
indirect job change	0.9097	-0.81	0.4261	-5.23	1.7375	5.62	
Bulgaria	Reference	category	Reference category		Reference category		
Czech Republic	1.0522	2.59	2.3364	15.82	0.4655	-14.40	
Estonia	0.8702	-5.91	2.8316	14.79	0.5528	-8.24	
Hungary	0.9264	-3.61	2.1520	12.93	0.5044	-14.21	
Lithuania	0.9854	-0.71	2.9173	17.57	0.4563	-18.32	
Latvia	1.0307	0.91	1.4510	5.99	0.5147	-26.42	
Poland	1.2299	10.47	2.5075	29.74	0.5288	-39.36	
Romania	0.9199	-3.43	2.8707	15.80	0.6361	-8.65	
Slovenia	1.1142	6.91	3.2876	21.22	0.3071	-24.01	
Slovakia	0.9892	-0.52	2.4248	16.80	0.5651	-11.40	
2005	0.9331	-1.09	0.8617	-1.15	1.1364	1.24	
2006	Reference	category	Reference	category	Reference	category	
2007	1.0184	0.37	1.0857	0.73	0.9729	-0.46	
Pseudo-R²	0.0	021	0.0	124	0.0	085	
Observations	75,	680	23,	970	22,	780	

Table A.6.23
Estimation results: Distance of earnings transitions, UK and Ireland

	Al		Dov	vn	Up	)
	Odds Ratio	t-value	Odds Ratio	t-value	Odds Ratio	t-value
Male	1.0442	3.56	0.8527	-18.59	1.2315	44.90
Female	Reference category		Reference	category	Reference	category
Age 15-24	Reference	category	Reference	category	Reference	category
Age 25-54	0.6857	-73.49	1.6250	17.36	0.8155	-34.37
Age 55-65	0.5839	-1771.87	1.7818	19.96	0.9573	-1.99
Single	Reference	category	Reference	category	Reference	category
Married, living with partner	1.0386	10.54	0.9205	-5.53	1.1456	5.85
Not married, living with partner	1.0555	16.89	1.0328	6.81	1.2980	11.70
Low skilled (ISCED 0-2)	0.8853	-10.31	1.0421	2.65	0.7966	-43.96
Medium skilled (ISCED 3-4)	Reference	category	Reference category		Reference category	
High skilled (ISCED 5)	1.0841	17.07	1.1803	60.40	0.7960	-10.84
no job change	Reference	category	Reference category		Reference category	
direct job change	1.3779	56.70	0.7951	-131.21	1.2548	37.23
indirect job change	0.0365	-46.80	0.0697	-406.16	2.0734	1.04
Ireland	Reference	category	Reference	category	Reference	category
United Kingdom	0.6439	-425.03	0.6466	-149.17	0.6315	-27.20
2005	0.3709	-264.30	1.6786	196.23	0.0000	-20.65
2006	Reference	category	Reference	category	Reference	category
2007	1.0779	165.27	1.6507	64.49	0.9897	-0.60
Pseudo-R <sup>2</sup>	0.0	081	0.0254		0.0053	
Observations	6,	553	1,	,578	1,742	

Table A.6.24
Estimation results: Distance of earnings transitions – occupation as additional explanatory variables

	Al	I	Dov	vn	Up	)
	Odds Ratio	t-value	Odds Ratio	t-value	Odds Ratio	t-value
Legislators, Senior officials and Managers	Reference	category	Reference	category	Reference	category
Professionals	1.0033	0.18	1.3726	1.95	0.8941	-1.03
Technicians and Associate Professionals	1.0330	0.72	1.1334	1.50	1.0618	0.66
Clerks	1.0744	2.71	1.2562	3.16	1.0324	0.21
Service workers and shop and market sales workers	1.0227	0.64	1.1522	1.99	1.0951	0.65
Skilled agricultural and fishery workers	0.9172	-0.80	1.3133	2.84	0.9472	-0.21
Craft and related trades workers	1.0963	3.51	1.1180	1.24	1.1570	1.07
Plant and machine operators and assemblers	1.0069	0.18	0.9689	-0.42	1.1628	1.33
Elementary occupations	0.9676	-0.65	1.1444	1.95	1.0714	0.51
Change in Occupation	1.0257	0.52	0.8476	-2.41	1.1489	2.51
Pseudo-R <sup>2</sup>	0.03	300	0.01	39	0.01	84
Observations	86,7	<b>7</b> 26	22,7	'01	25,1	45

Table A.6.25
Estimation results: Distance of earnings transitions – previous change as additional explanatory variables, by country group

explanatory variables, by	Al	•	Dov	vn	Ur	<u> </u>	
	Odds Ratio	t-value	Odds Ratio	t-value	Odds Ratio	t-value	
Downward transition before	2.4668	18.32	0.8237	-3.44	1.8587	13.69	
No transition before	Reference	category	Reference	Reference category		Reference category	
Upward transition before	0.5126	-13.56	0.5285	-13.17	1.0146	0.21	
Male	1.0603	2.61	0.7964	-3.21	1.2911	4.96	
Female	Reference	category	Reference	category	Reference	category	
Age 15-24	Reference	category	Reference	category	Reference	category	
Age 25-54	0.7695	-2.31	0.9763	-0.29	0.7710	-3.08	
Age 55-65	0.6881	-2.86	1.1283	1.17	0.7476	-2.32	
Single	Reference	category	Reference	category	Reference	category	
Married, living with partner	0.9153	-2.79	0.8831	-1.84	0.7909	-2.84	
Not married, living with partner	1.0637	0.87	0.8944	-1.08	0.9909	-0.06	
Low skilled (ISCED 0-2)	0.9141	-2.03	0.8748	-1.94	0.9618	-0.38	
Medium skilled (ISCED 3-4)	Reference	category	Reference	category	Reference	category	
High skilled (ISCED 5)	1.0208	0.46	1.0298	0.51	0.8094	-3.28	
no job change	Reference	category	Reference	category	Reference	category	
direct job change	1.3746	5.42	0.6853	-3.47	1.4770	5.25	
indirect job change	1.0993	0.21	0.2961	-6.69	2.1644	6.45	
Austria	Reference	category	Reference	category	Reference	category	
Belgium	1.4440	19.33	1.4957	21.18	0.9508	-2.29	
Bulgaria	1.2459	5.96	0.5563	-12.06	1.8974	17.97	
Cyprus	1.5613	16.16	3.6431	48.74	0.3249	-54.57	
Czech Republic	1.2224	7.50	1.1434	5.00	0.9806	-0.56	
Denmark	1.1917	5.54	2.1772	16.17	0.7786	-8.16	
Estonia	0.8293	-11.74	1.4210	15.52	0.8527	-11.52	
Spain	1.4810	11.03	1.2989	8.17	1.1296	4.59	
Finland	1.3808	13.42	2.7212	39.95	0.4934	-43.87	
Hungary	1.2564	8.14	0.8846	-8.36	1.0745	4.52	
Ireland	1.5698	11.03	0.7153	-7.26	2.1520	12.08	
Lithuania	1.1955	7.42	1.3992	19.79	1.0315	1.55	
Luxembourg	1.6081	13.97	4.3475	43.77	0.3646	-57.62	
Netherlands	1.3666	15.01	3.3851	39.76	0.3093	-37.20	
Norway	1.3830	13.38	1.5145	26.49	0.7831	-12.94	
Poland	1.4546	9.78	1.7930	16.06	1.1027	2.03	
Sweden	1.2338	9.58	1.4777	13.91	0.5518	-30.13	
Slovenia	1.3368	11.04	1.5578	30.61	0.5944	-42.20	
Slovakia	1.0020	0.14	1.7374	28.26	1.0073	0.28	
United Kingdom	1.3086	7.20	2.6611	35.97	0.4486	-28.06	
2006	Reference	category	Reference	category	Reference	category	
2007	1.0066	0.13	0.9988	-0.02	1.0619	0.87	
Pseudo-R <sup>2</sup>	0.02	82	0.0	305	0.0	317	
Observations	52,3	70	14	,299	14,	642	

Figure A.6.1 **Earnings distribution in Austria** 

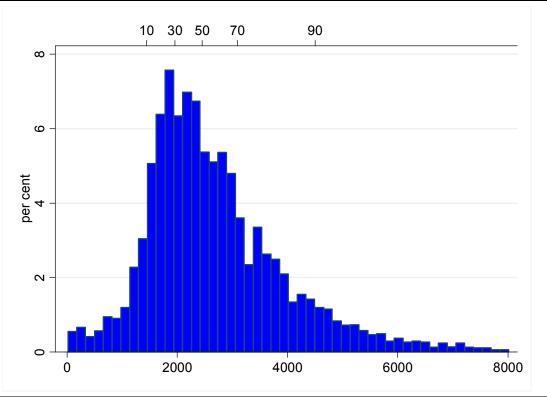


Figure A.6.2 **Earnings distribution in Belgium** 

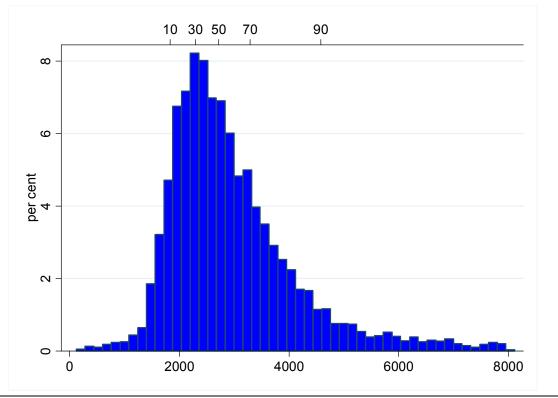


Figure A.6.3 **Earnings distribution in Bulgaria** 

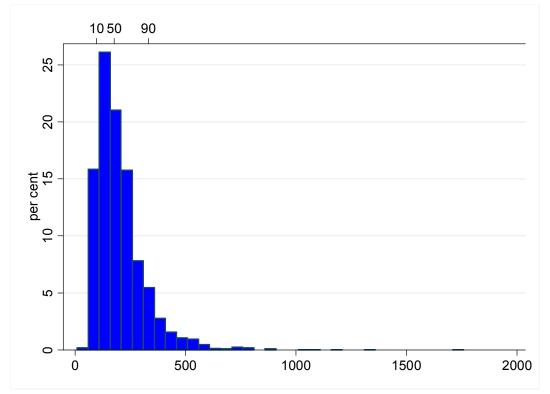


Figure A.6.4 **Earnings distribution in Cyprus** 

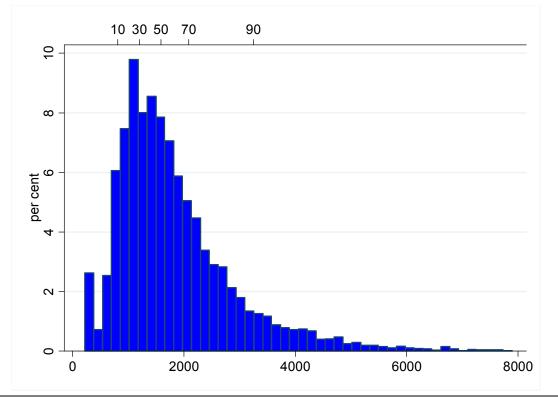


Figure A.6.5 **Earnings distribution in Czech Republic** 

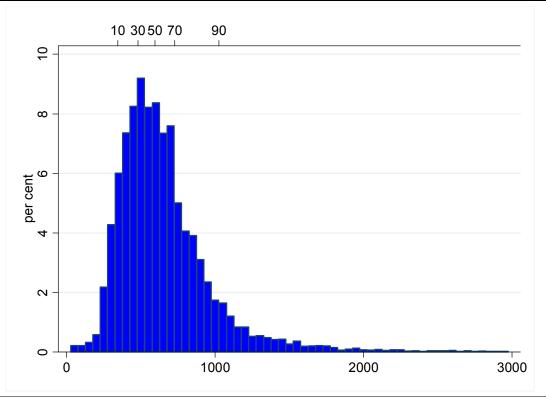


Figure A.6.6 **Earnings distribution in Germany** 

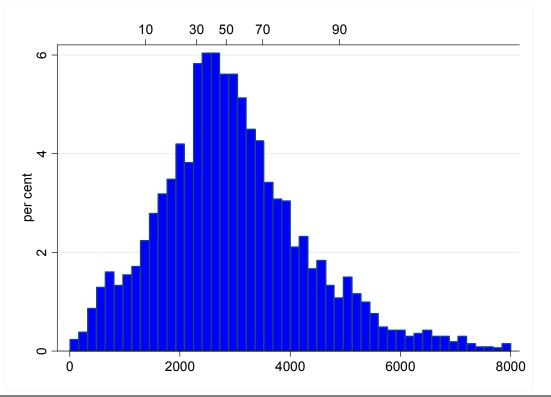


Figure A.6.7 **Earnings distribution in Denmark** 

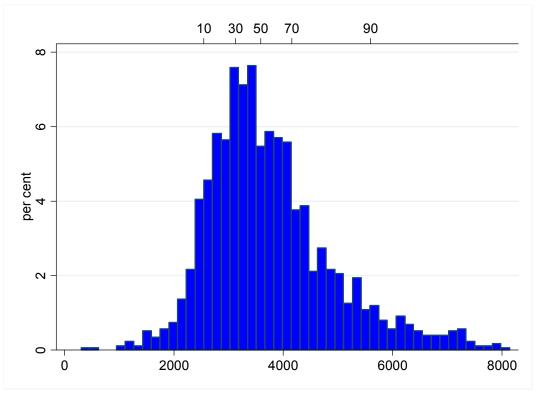


Figure A.6.8 **Earnings distribution in Estland** 

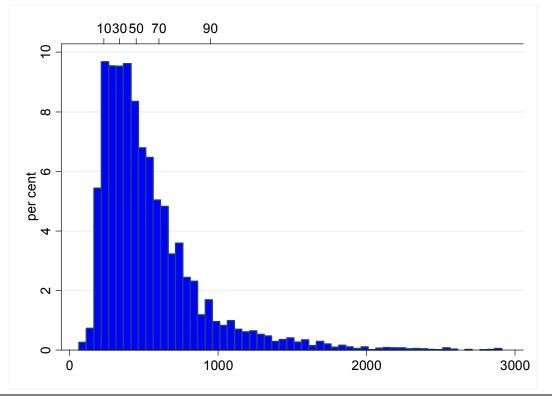


Figure A.6.9 **Earnings distribution in Spain** 

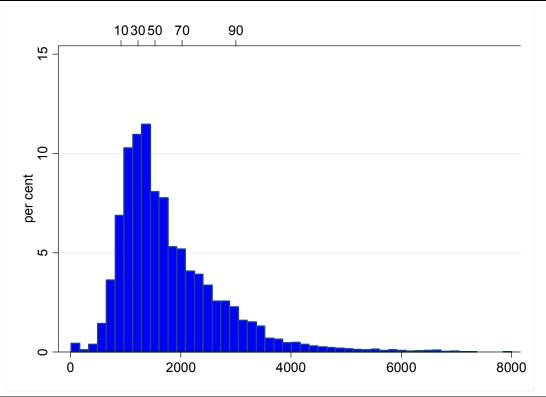


Figure A.6.10 **Earnings distribution in Finland** 

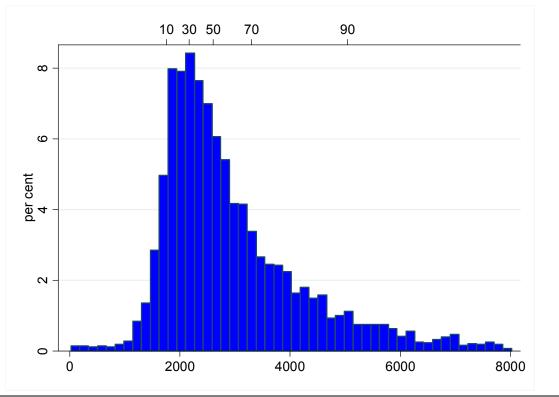


Figure A.6.11 **Earnings distribution in France** 

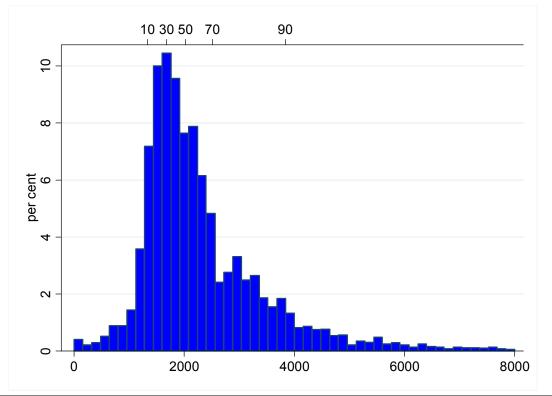


Figure A.6.12 **Earnings distribution in Hungary** 

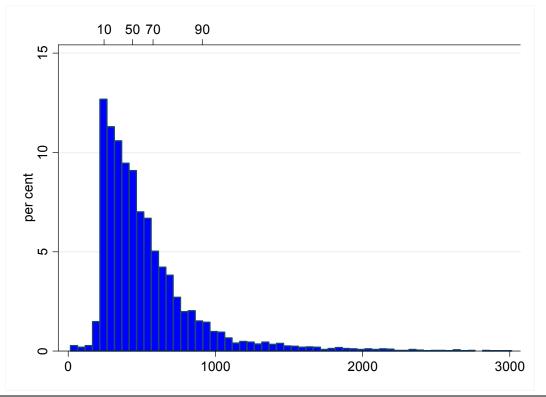


Figure A.6.13 **Earnings distribution in Italy** 

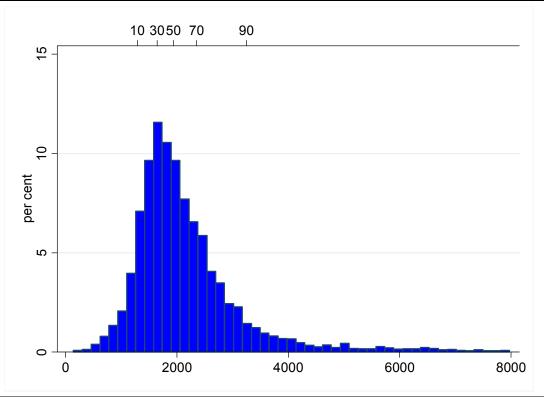


Figure A.6.14 **Earnings distribution in Lithuania** 

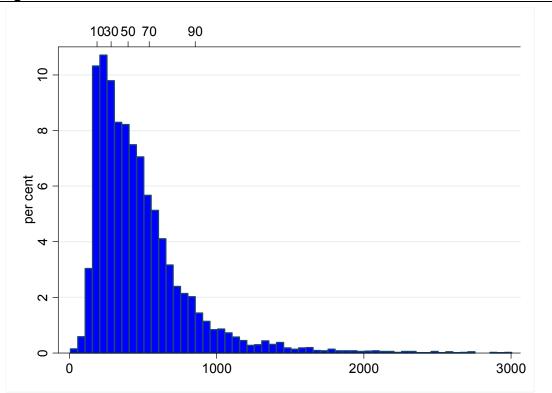


Figure A.6.15 **Earnings distribution in Luxembourg** 

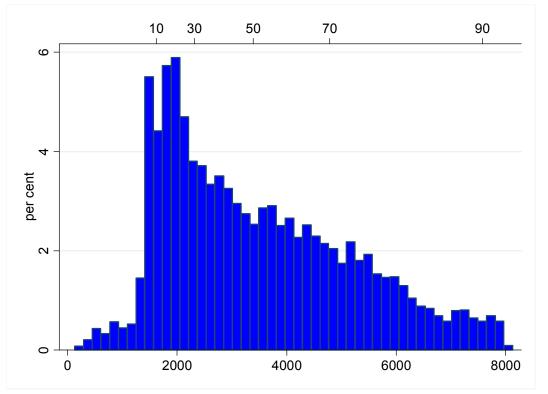


Figure A.6.16 **Earnings distribution in Latvia** 

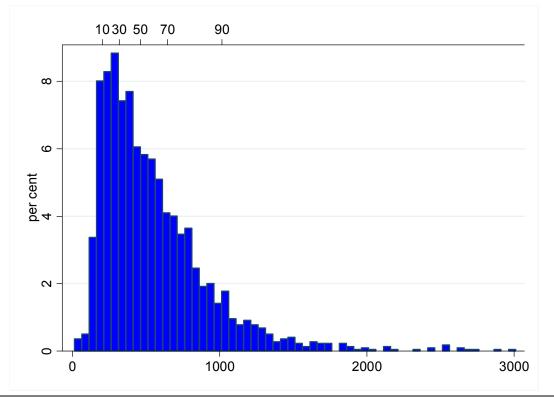


Figure A.6.17 **Earnings distribution in the Netherlands** 

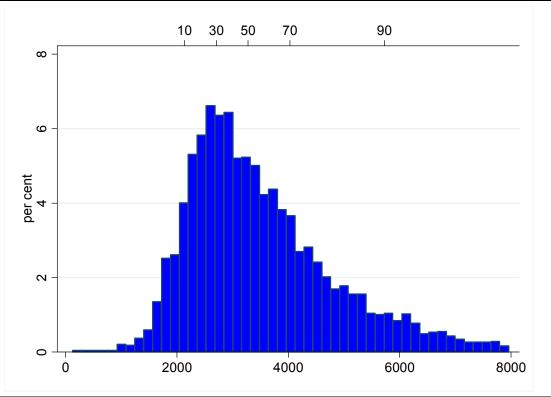


Figure A.6.18 **Earnings distribution in Norway** 

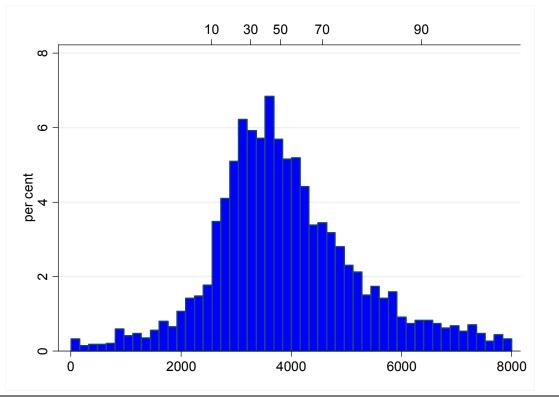


Figure A.6.19 **Earnings distribution in Poland** 

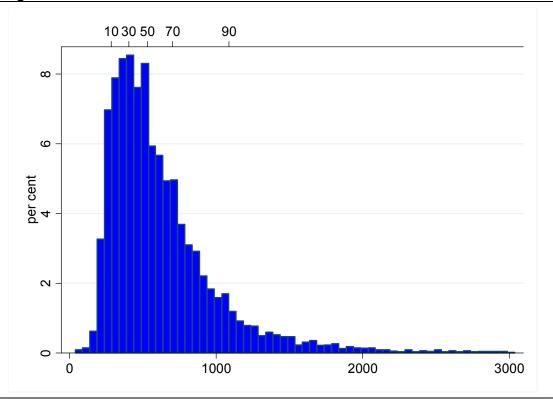


Figure A.6.20 **Earnings distribution in Portugal** 

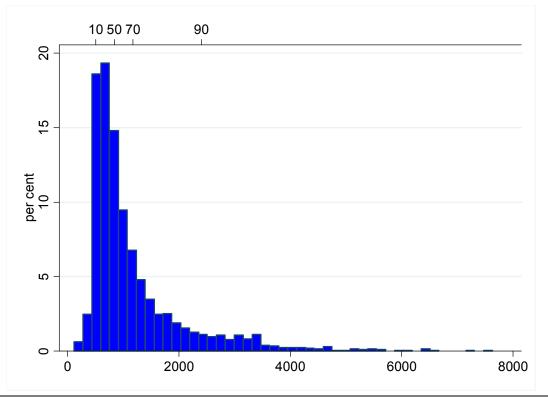


Figure A.6.21 **Earnings distribution in Romania** 

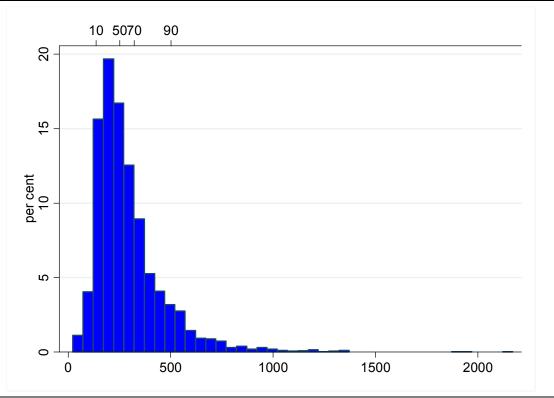


Figure A.6.22 **Earnings distribution in Sweden** 

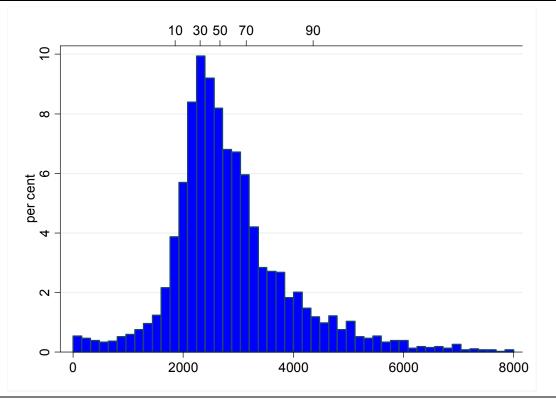


Figure A.6.23 **Earnings distribution in Slovenia** 

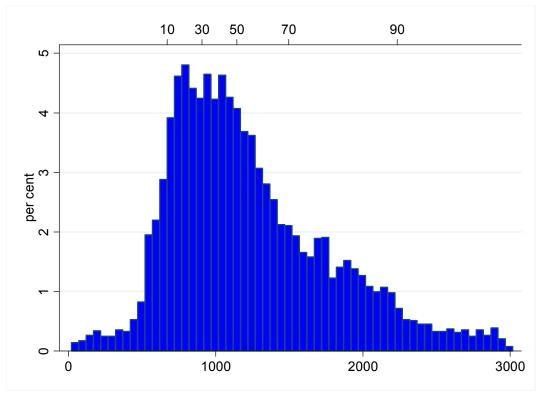


Figure A.6.24 **Earnings distribution in Slovakia** 

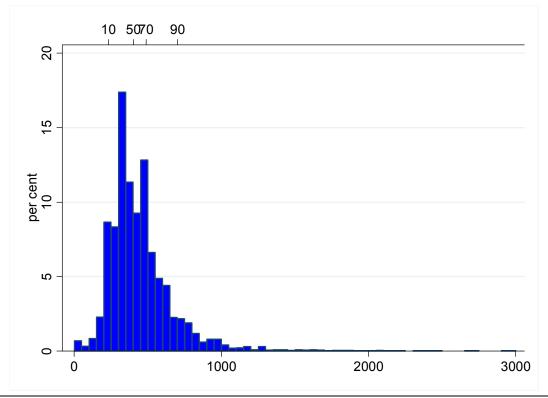


Figure A.6.25 **Earnings distribution in the UK** 

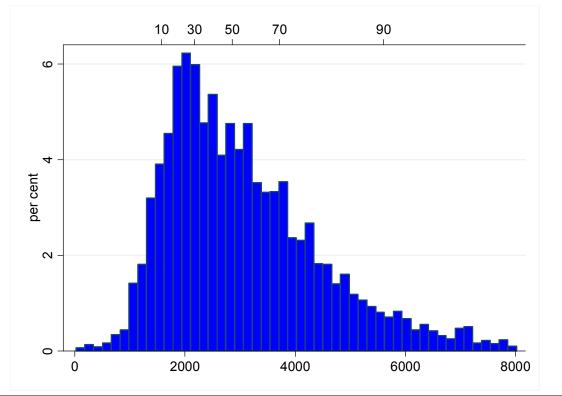


Table A.7.1 **Data Availability by country** 2004 to 2008

Country	2004	2005	2006	2007	2008
Austria	x	х	Х	Х	Х
Belgium	x	х	Х	х	х
Bulgaria			Х	х	х
Cyprus		Х	Х	х	x
Czech Republic		X	X	х	x
Germany		Х	Х		
Denmark	x	Х	X	х	
Estonia	x	X	X	х	x
Spain	x	x	X	x	x
Finland	x	x	X	x	x
France	x	x	X	x	
Greece	x	x	X	x	
Hungary		x	X	x	X
Ireland	x	x	X	x	X
Iceland	x	Х	Х	х	
Italy	x	Х	Х	х	X
Lithuania		Х	X	х	X
Luxembourg	x	Х	X	х	X
Latvia		Х	Х	х	x
Netherlands		х	Х	х	х
Norway	x	х	Х	х	х
Poland		х	Х	х	х
Portugal	x	х	Х	х	х
Romania				х	Х
Sweden	x	х	х	х	Х
Slovenia		x	Х	х	Х
Slovakia		x	Х	х	Х
United Kingdom		x	x	x	Х

Table A.7.2 **Number of observations** 2004 to 2008

Country	2004	2005	2006	2007	2008
Austria	7,930	9,152	10,245	11,369	6,344
Belgium	6,672	8,557	9,435	10,147	7,325
Bulgaria	-	0	4,309	5,953	4,999
Cyprus	-	5,816	7,656	7,369	5,279
Czech Republic	-	7,170	12,344	15,955	15,040
Germany	-	16,964	15,653	-	-
Denmark	4,941	6,923	8,448	5,742	-
Estonia	8,353	8,644	11,495	10,347	6,543
Spain	23,356	26,133	24,065	23,928	17,623
Finland	11,038	14,126	13,209	12,615	8,878
France	14,595	16,268	16,810	14,493	-
Greece	8,563	9,886	9,984	6,912	-
Hungary	-	9,816	13,702	15,387	11,162
Ireland	5,152	8,032	8,523	5,825	3,061
Iceland	4,229	5,811	5,442	3,758	-
Italy	31,851	38,165	36,640	35,438	24,873
Lithuania	-	6,352	8,506	8,849	5,953
Luxembourg	6,897	6,866	7,153	7,181	6,097
Latvia	-	6,119	7,483	7,563	5,649
Netherlands	-	14,571	15,901	17,921	11,843
Norway	9,897	11,419	9,297	7,914	6,126
Poland	-	25,760	32,211	30,608	21,829
Portugal	4,790	6,633	8,204	7,915	5,729
Romania	-	-	-	10,224	9,987
Sweden	9,416	12,256	11,197	11,242	8,060
Slovenia	-	20,925	24,131	21,752	14,085
Slovakia	-	8,746	11,217	10,794	8,307
United Kingdom	-	13,561	15,425	14,359	9,139
EU-SILC	157,680	324,671	358,685	341,560	223,931

Table A.7.3 **Number of observations – selected respondents**2004 to 2008

Country	2004	2005	2006	2007	2008
Denmark	2,325	3,175	3,876	2,591	-
Finland	5,062	6,282	5,926	4,140	3,955
Ireland	3,521	5,702	7,945	5,824	3,061
Iceland	1,625	2,240	2,088	1,453	-
Netherlands	-	7,167	7,578	5,541	5,641
Norway	4,457	4,110	3,484	2,262	2,803
Sweden	4,314	5,312	4,896	3,250	3,516

Source: EU-SILC, own calculations.

Table A.7.4

Number of persons with wrong person identifier

Country	2004	2005	2006	2007	Total
Austria	0	0	0	2	2
Spain	3	5	10	2	20
Finland	1	0	0	0	1
Lithuania	371	6	0	0	377
Luxembourg	6	0	0	0	6
Norway	24	3	3	1	31
United Kingdom	0	1	0	0	1
Total	405	15	13	5	438

Source: EU-SILC, own calculations.

Table A.7.5

Reason for job change is end of temporary contract, by labour market transition in per cent

	DESTINATION							
ORIGIN	full-time, permanent	full-time, temporary	part-time, permanent	part-time, temporary	unem- ployment	Total		
Full-time, permanent	4.56	11.78	9.15	13.32	3.57	5.93		
Full-time, temporary	23.43	39.99	26.12	47.23	20.56	33.63		
Part-time, permanent	5.82	13.10	7.19	9.57	4.51	7.51		
Part-time, temporary	14.22	37.40	20.48	37.45	24.41	29.26		
Self-employment	2.51	10.22	5.10	16.15	12.09	8.43		
Unemployment	11.81	31.99	19.13	36.78	12.56	22.66		
Inactivity	6.44	21.00	8.33	22.53	9.27	13.35		

Table A.7.6

Reason for job change is sale or closure of own/family business, by labour market transition
in per cent

	DESTINATION							
ORIGIN	full-time, permanent	full-time, temporary	part-time, permanent	part-time, temporary	unem- ployment	Total		
Full-time, permanent	1.11	0.66	1.39	0.73	1.22	1.05		
Full-time, temporary	0.60	0.55	0.75	1.06	0.93	0.62		
Part-time, permanent	0.46	1.31	1.80	0.33	0.75	1.04		
Part-time, temporary	1.86	0.38	1.43	0.58	1.57	0.99		
Self-employment	18.96	13.63	19.39	15.38	9.24	13.99		
Unemployment	1.21	0.91	1.08	0.63	2.61	1.17		
Inactivity	0.75	0.65	0.17	0.28	2.32	0.75		

Table A.7.7

Response Rate of "Employee cash or near cash income (gross)"
2004 to 2008; in per cent

Country	2004	2005	2006	2007	2008
Austria	100	100	100	100	100
Belgium	100	100	100	100	100
Bulgaria	-	-	100	100	100
Cyprus	-	100	100	100	100
Czech Republic	-	100	100	100	100
Germany	-	100	100	-	-
Denmark	100	100	100	100	-
Estonia	100	100	100	100	100
Spain	46	59	100	100	100
Finland	100	100	100	100	100
France	NA	NA	100	100	-
Greece	NA	NA	NA	100	-
Hungary	-	100	100	100	100
Ireland	100	100	100	100	100
Iceland	100	100	100	100	-
Italy	NA	NA	NA	100	100
Lithuania	-	100	100	100	100
Luxembourg	100	100	100	100	100
Latvia	-	NA	NA	100	100
Netherlands	-	100	100	100	100
Norway	100	100	100	100	100
Poland	-	100	100	100	100
Portugal	NA	NA	NA	100	100
Romania	-	-	-	100	100
Sweden	100	100	100	100	100
Slovenia	-	100	100	100	100
Slovakia	-	100	100	100	100
United Kingdom	-	100	100	100	100

Table A.7.8

Response Rate of "Tax on income and social contributions (gross)"
2004 to 2008; in per cent

Country	2004	2005	2006	2007	2008
Austria	100	100	100	100	100
Belgium	100	100	100	100	100
Bulgaria	-	-	100	100	100
Cyprus	-	100	100	100	100
Czech Republic	-	100	100	100	100
Germany	-	100	100	-	-
Denmark	100	100	100	100	-
Estonia	100	100	100	100	100
Spain	60	74	99	100	100
Finland	100	100	100	100	100
France	NA	NA	100	100	-
Greece	NA	NA	NA	100	-
Hungary	-	100	100	100	100
Ireland	100	100	100	100	100
Iceland	100	100	100	100	-
Italy	NA	NA	NA	100	100
Lithuania	-	100	100	100	100
Luxembourg	100	100	100	100	100
Latvia	-	NA	NA	100	100
Netherlands	-	100	100	100	100
Norway	100	100	100	100	100
Poland	-	100	100	100	100
Portugal	NA	NA	NA	100	100
Romania	-	-	-	100	100
Sweden	100	100	100	100	100
Slovenia	-	100	100	100	100
Slovakia	-	100	100	100	100
United Kingdom	-	100	100	98	100

Table A.7.9

Response Rate of "Tax on income and social contributions (net)"
2004 to 2008; in per cent

Country	2004	2005	2006	2007	2008
Austria	NA	NA	NA	NA	NA
Belgium	NA	NA	NA	NA	NA
Bulgaria	-	-	100	100	100
Cyprus	-	NA	NA	NA	NA
Czech Republic	-	100	100	100	100
Germany	-	NA	NA	-	-
Denmark	NA	NA	NA	NA	-
Estonia	NA	NA	NA	NA	NA
Spain	93	99	100	100	NA
Finland	NA	NA	NA	NA	NA
France	NA	NA	NA	NA	-
Greece	NA	NA	NA	NA	-
Hungary	-	NA	NA	NA	NA
Ireland	100	100	100	100	100
Iceland	NA	NA	NA	NA	-
Italy	NA	NA	NA	NA	NA
Lithuania	-	NA	NA	NA	NA
Luxembourg	NA	NA	NA	NA	NA
Latvia	-	-	-	100	100
Netherlands	-	NA	NA	NA	NA
Norway	NA	NA	NA	NA	NA
Poland	-	100	100	100	100
Portugal	NA	NA	NA	NA	NA
Romania	-	-	-	100	100
Sweden	100	100	100	100	100
Slovenia	-	100	100	100	100
Slovakia	-	NA	NA	NA	NA
United Kingdom	-	NA	NA	NA	NA

Table A.7.10

Response Rate of "Family/Children related allowances (net)"
2004 to 2008; in per cent

Country	2004	2005	2006	2007	2008
Austria	100	100	100	100	100
Belgium	100	100	100	100	100
Bulgaria	-	-	100	100	100
Cyprus	-	100	100	100	100
Czech Republic	-	100	100	100	100
Germany	-	100	100	-	-
Denmark	NA	NA	NA	NA	-
Estonia	100	100	100	100	100
Spain	100	100	100	100	100
Finland	NA	NA	NA	NA	NA
France	100	100	100	100	-
Greece	100	100	100	100	-
Hungary	-	NA	NA	NA	NA
Ireland	100	100	100	100	100
Iceland	NA	NA	NA	NA	-
Italy	100	100	100	100	100
Lithuania	-	100	100	100	100
Luxembourg	100	100	100	100	100
Latvia	-	100	100	100	100
Netherlands	-	NA	NA	NA	NA
Norway	NA	NA	NA	NA	NA
Poland	-	100	100	100	100
Portugal	100	100	100	100	100
Romania	-	-	-	100	100
Sweden	100	100	100	100	100
Slovenia	-	100	100	100	100
Slovakia	-	NA	NA	NA	NA
United Kingdom	-	16	10	NA	NA

Table A.7.11

Response Rate of "Employee cash or near cash income (net)"
2004 to 2008; in per cent

Country	2004	2005	2006	2007	2008
Austria	100	100	100	100	100
Belgium	100	100	100	100	100
Bulgaria	-	-	100	100	100
Cyprus	-	1	1	1	1
Czech Republic	-	100	100	100	100
Germany	-	100	NA	-	-
Denmark	NA	NA	NA	NA	-
Estonia	100	100	100	100	100
Spain	100	100	100	100	100
Finland	NA	NA	NA	NA	NA
France	100	100	100	100	-
Greece	100	100	100	100	-
Hungary	-	NA	NA	NA	NA
Ireland	100	100	100	100	100
Iceland	NA	NA	NA	NA	-
Italy	100	100	100	100	100
Lithuania	-	100	100	100	100
Luxembourg	100	100	100	100	100
Latvia	-	100	100	100	100
Netherlands	-	NA	NA	NA	NA
Norway	NA	NA	NA	NA	NA
Poland	-	100	100	100	100
Portugal	100	100	100	100	100
Romania	-	-	-	100	100
Sweden	100	100	100	100	100
Slovenia	-	100	100	100	100
Slovakia	-	NA	NA	NA	NA
United Kingdom	-	16	11	NA	NA

Table A.7.12 **Share of consistence labour market states in monthly and yearly data by country** in per cent

in per cent	2004	2005	2006	2007	2008
Austria	82.54	89.18	89.45	85.76	-
Belgium	85.97	85.43	87.87	88.00	-
Bulgaria	-	-	78.81	70.11	-
Cyprus	-	91.79	97.03	97.16	-
Czech Republic	-	87.76	89.91	-	-
Germany	-	85.51	-	-	-
Denmark	80.74	85.03	85.52	-	-
Estonia	92.17	93.76	97.60	97.47	-
Spain	78.33	79.28	80.32	82.24	-
Finland	83.07	83.43	83.12	83.15	-
France	95.44	94.87	95.82	-	-
Greece	84.06	87.14	87.28	-	-
Hungary	-	76.31	76.66	76.68	-
Ireland	90.38	89.13	91.00	89.25	89.95
Italy	88.57	82.62	83.28	81.46	-
Lithuania	-	86.93	92.43	93.94	-
Luxembourg	85.52	93.58	94.47	94.41	-
Latvia	-	78.45	79.89	80.10	-
Netherlands	-	76.45	83.42	82.49	-
Norway	43.24	52.18	45.34	40.31	-
Poland	-	83.25	85.13	85.55	-
Portugal	89.47	90.37	90.86	84.38	-
Romania	-	-	-	90.03	-
Sweden	86.39	77.92	81.31	82.37	-
Slovenia	-	88.04	87.53	86.52	-
Slovakia	-	89.00	89.96	91.99	-
United Kingdom	-	97.19	97.44	96.72	97.06

Table A.7.13

Markov transition matrices using EU-LFS and EU-SILC data, by gender in per cent

•	DESTINATION							
		EU-LFS			EU-SILC			
	Employment	Unemployment	Inactivity	Employment	Unemployment	Inactivity		
ORIGIN								
All								
Employment	94.12	2.78	3.10	93.09	2.81	4.10		
	(8.18)			(9.10)				
Unemployment	29.71	57.03	13.26	33.13	49.36	17.51		
Inactivity	9.30	3.87	86.82	11.19	3.79	85.02		
Total	63.82	6.85	29.33	63.90	6.38	29.73		
Women								
Employment	92.97	2.76	4.27	91.40	2.95	5.64		
	(7.81)			(9.08)				
Unemployment	28.13	56.28	15.59	30.09	47.73	22.19		
Inactivity	8.79	3.84	87.38	10.98	3.67	85.35		
Total	56.46	6.71	36.84	55.65	6.41	37.94		
Men								
Employment	95.02	2.79	2.19	94.36	2.70	2.94		
	(8.47)			(9.12)				
Unemployment	31.17	57.72	11.11	36.19	51.00	12.81		
Inactivity	10.18	3.93	85.89	11.57	4.00	84.44		
Total	71.20	7.00	21.81	72.02	6.35	21.62		

Table A.7.14

Markov transition matrices using EU-LFS and EU-SILC data, by skill group in per cent

	DESTINATION						
		EU-LFS			EU-SILC	EU-SILC	
	Employment	Unemployment	Inactivity	Employment	Unemployment	Inactivity	
ORIGIN							
Low skilled							
Employment	91.67	4.00	4.32	89.89	4.61	5.49	
	(8.27)			(8.69)			
Unemployment	23.94	61.35	14.72	27.93	52.63	19.44	
Inactivity	4.78	2.66	92.57	6.14	3.34	90.52	
Total	44.83	8.16	47.01	49.78	8.45	41.77	
Medium skilled							
Employment	94.19	2.83	2.98	93.58	2.48	3.94	
	(8.23)			(9.21)			
Unemployment	31.26	56.39	12.35	34.55	48.71	16.74	
Inactivity	11.23	4.55	84.22	12.83	3.84	83.33	
Total	68.25	7.07	24.68	66.11	6.04	27.85	
High skilled							
Employment	96.09	1.62	2.30	95.25	1.70	3.04	
	(7.99)			(9.24)			
Unemployment	41.81	45.75	12.44	45.34	40.72	13.94	
Inactivity	23.56	7.02	69.42	23.06	5.29	71.65	
Total	82.89	4.23	12.87	80.44	4.02	15.54	

Table A.7.15

Markov transition matrices using EU-LFS and EU-SILC data, by age group in per cent

		DESTINATION						
		EU-LFS			EU-SILC			
	Employment	Unemployment	Inactivity	Employment	Unemployment	Inactivity		
ORIGIN								
Age 15-24								
Employment	88.38	5.99	5.62	85.86	6.42	7.72		
	(20.61)			(21.94)				
Unemployment	36.43	52.72	10.85	37.18	46.86	15.95		
Inactivity	11.94	4.62	83.43	14.16	4.70	81.15		
Total	34.86	8.37	56.77	36.58	8.64	54.78		
Age 25-54								
Employment	95.38	2.62	2.00	94.88	2.65	2.47		
	(7.77)			(8.96)				
Unemployment	30.71	58.42	10.87	35.89	48.67	15.45		
Inactivity	12.25	5.62	82.13	17.17	6.05	76.79		
Total	77.44	7.27	15.30	77.71	6.66	15.63		
Age 55-65								
Employment	89.82	1.78	8.40	86.18	2.15	11.67		
	(2.97)			(4.19)				
Unemployment	12.89	55.38	31.73	15.19	55.49	29.32		
Inactivity	2.19	0.76	97.05	3.24	0.95	95.81		
Total	43.05	3.72	53.23	38.54	4.05	57.41		

Table A.7.16

Markov transition matrices using EU-LFS and EU-SILC data, by country group in per cent

in per cent	DESTINATION						
		EU-LFS		EU-SILC			
	Employment	Unemployment	Inactivity	Employment	Unemployment	Inactivity	
ORIGIN							
Continental Europe							
Employment	94.03	2.79	3.18	94.19	2.41	3.40	
	(7.70)			(6.44)			
Unemployment	28.17	52.37	19.46	31.65	55.68	12.67	
Inactivity	11.91	3.64	84.45	12.87	2.23	84.90	
Total	66.12	6.45	27.44	64.97	5.84	29.19	
Scandinavia							
Employment	90.97	2.75	6.28	92.49	2.18	5.33	
	(10.31)			(12.05)			
Unemployment	33.61	48.77	17.63	36.40	42.35	21.25	
Inactivity	15.26	4.65	80.09	19.36	4.89	75.75	
Total	69.77	5.45	24.78	72.03	4.87	23.10	
Mediterranean countries							
Employment	94.03	3.24	2.73	92.23	3.77	4.00	
	(7.78)			(9.12)			
Unemployment	30.56	61.42	8.02	32.13	47.96	19.91	
Inactivity	5.32	4.07	90.61	9.08	5.12	85.80	
Total	60.46	8.18	31.36	61.41	7.66	30.93	
CEE							
Employment	93.98	2.86	3.16	93.00	2.85	4.15	
	(6.74)			(7.43)			
Unemployment	26.59	61.56	11.85	34.52	49.36	16.11	
Inactivity	6.12	3.34	90.54	9.11	3.49	87.40	
Total	57.69	7.85	34.46	59.96	7.38	32.66	
United Kingdom							
Employment	95.20	1.99	2.81	93.64	1.13	5.23	
	(11.71)			(18.94)			
Unemployment	47.70	35.93	16.37	41.78	31.78	26.44	
Inactivity	19.35	5.88	74.77	16.32	2.91	80.77	
Total	74.55	3.93	21.53	72.62	2.37	25.01	



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