



UNIVERSITY OF WARSAW

Faculty of Economic Sciences

WORKING PAPERS

No. 4/2015 (152)

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WOMEN IN TRANSITION AND TODAY:
WHAT DO THEY WANT, REALIZE,
AND EXPERIENCE IN THE LABOR MARKET?

WARSAW 2015



**Women in transition and today: what do they want, realize,
and experience in the labor market?**

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Abstract

We investigate how women's attitude and realization of choices towards equal participation in the labor market changes with age, and how these patterns differ between generations in transition and Western economies. As transition countries experienced a drop in employment rates regardless of gender, we study the relative change in the position of women, compared to similarly endowed men. We find that disentangling age, time, and cohort effects is necessary to appropriately assess women's progress on labor markets in transition. The results indicate that in Western Europe countries women born later have much more equal position on the labor market as compared to older birth cohorts, but this is not the case in transition economies.

Keywords:

gender gaps, women empowerment, women labor force participation

JEL:

J21, J71

Acknowledgements:

The support of National Center for Science (grant UMO-012/05/E/HS4/01510) is gratefully acknowledged. Authors are grateful to Irene van Staveren and Joanna Tyrowicz for very insightful comments. Usual disclaimer applies.

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1. Introduction

The engagement of women in professional activities is one of the most important issues in the analysis of women's empowerment. There are various aspects of the process that makes women enter the labor market. Firstly, women's own opinion regarding her right to follow professional career can be the hurdle or the spark. Secondly, women's agency with respect to labor market position, understood as the ability to influence her own decisions about professional career, depends strongly on the overall labor market situation. Even if women's voice claiming equal access to the labor market represents the opinion of more and more women over time, the situation will not change until this voice will be listened to. In this work we try to analyze both the decision of women to participate in the labor market, and their access to this market.

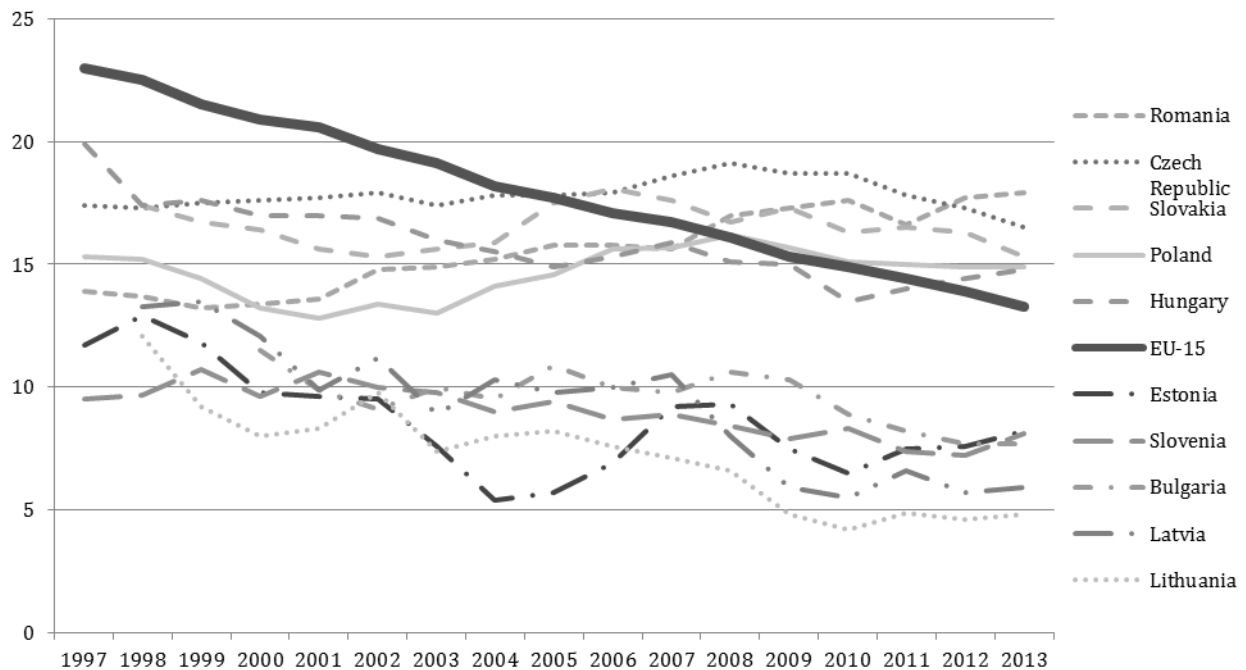
As previous literature acknowledges women's empowerment on the labor market has important impact on, among others, investment in children human capital and health (Attanasio et al. 2002, Doss 2006, Schady et al. 2006, Schady et al. 2009, Rubalcava et al. 2009, Luke and Munsch 2011), the empowerment of future generations of women (Fortin 2005, Farre and Vella 2013), and as a result on overall economic development (Klasen 2000, Klasen et al. 2009, Duflo 2008). According to the World Development Report (World Bank, 2012) gender inequalities in activity rates are universally decreasing around the world, both in advanced and developing countries. We find that transition economies are the exceptions - the situation over the last 20 years in some cases stagnated, and in some - even worsened. We underline the importance of rigorous measurement of the indicators signaling changing situation of women on the labor market, with special focus on disentangling the age and birth cohort effects. These two effects have different origin, but in the same time are extremely easy to confound. Age pattern shows how attitude or behavior can change in case of one individual, while birth cohort effect is fixed for one person, but it changes with generations. Literature focused on women situation in transition provides the insight on different aspects, e.g. women entrepreneurship (Aidis et al. 2007, Aidis et al. 2008), impact of children on labor market participation (Bardasi and Monfardini, 2009), or relative returns to education and skills (Munich et al., 2005). However, to the best of our knowledge, this is the first study that looks at indicators of women's voice and agency in the labor market after transition controlling for, separately, age and cohorts effects.

Process of economic transformation experienced by Central and Eastern European countries since the beginning of the nineties had an important impact on the relations in the labor market. The effects of the changes were particularly strong in the case of older workers, for whom the number of new opportunities shrank. As discussed in Boeri (2000), many of the skills acquired by these workers were not transferrable to the new economic conditions. Additionally, different early retirement schemes set by the states resulted in a decrease in labor market participation. As the literature acknowledges, these effects were stronger in the case of women (Jurajda, 2005, Munich et al., 2005, Ganguli and Terrel, 2006). At the same time in Western Europe there were movements supporting equality of men and women in the labor market, and they did bear fruits. While the equalization of wages was challenged by the literature (Nopo et al. 2011, Weichselbaumer and

Winter-Ebmer, 2007) differences in labor market participation of working age men and women are constantly decreasing there (Figure 1). In 1997 the difference in activity rates between 25-64 men and women was as high as 23 percentage points among the EU-15 countries (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and United Kingdom). Over the next 16 years this difference decreased by around 10 percentage points.

The situation in the transition economies that joined the EU, either in 2004 (Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia) or in 2007 (Bulgaria, Romania), is less homogeneous. Figure 1 shows a clear division in two groups: one where the differences in participation rate were stable, which includes the largest economies of the region (Czech Republic, Hungary and Poland); and a group where the gap in participation was closing during the period (Baltic states, Romania and Slovenia).

Figure 1. Difference (in percentage points) between the activity rates among men and women (25-64) in transition countries



Source: Own preparation based on Eurostat data

This scenario provides us with several interesting questions concerning the nature of female labor force participation in transition countries. Some of them will be addressed in the following pages. The first question concerns the time dimension of this phenomenon. Is it a temporary by-product of the economic transformation or is it part of a long-term trend? If every consecutive cohort has a more equal position of men and women in the labor market – then we could expect that the latter is true. However if the progress is achieved only because e.g. women used to exit labor market at earlier ages and now their retirement age is more similar to men, but the relative situation of prime-age women now is like it used to be in the nineties – then we would rather conclude that the observed changes are due to changes in retirement age regulations, or due to the demographics that

makes the sizes of population at various age different now than before. Moreover, we can expect international differences in how the relative position of women changes with age. Comparing the activity rates for men and women of different age groups in e.g. Poland and Netherlands shows that there might be relation between the age of women and her relative position in the labor market, and that this relation might be country specific (see Table 1). Disentangling age and cohort effects of changes in relative position of women in the labor market in each of the analyzed countries is the major aim of this work.

Table 1. Activity rates of men and women in Poland and Netherlands by age categories

Age Categories			20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64
2013	NLD	Men	78,3	90,1	94,1	93,5	92,3	92,5	91,3	86,5	63,3
		Women	78,9	86	84,3	84,3	82,9	81,8	77,7	66,9	37,9
		Difference	-0,6	4,1	9,8	9,2	9,4	10,7	13,6	19,6	25,4
	PLN	Men	63,9	91,9	94,1	93,7	91,7	86,5	80,5	70,2	39,3
		Women	47	76,5	77,7	81,8	83,9	82,4	73,4	50,7	14,4
		Difference	16,9	15,4	16,4	11,9	7,8	4,1	7,1	19,5	24,9

Source: Eurostat

The second question in this paper concerns the obstacles to female participation. In particular, it is possible to distinguish between two levels: willingness to compete and ability to compete. The fall in participation might be due to the release of the constraints on leisure existent in Soviet period, as each individual had the obligation to work. In other words, the high participation of women before transition might have not reflected their “true” preferences for labor supply. In order to evaluate this possibility, we complement EU LFS data analysis with the World Values Survey. The second level concerns the ability to compete. The tightening of the labor markets experienced since the beginning of the transition might have driven individuals lacking the necessary skills to operate in the open market. Moreover, limited access to jobs allows for various types of discrimination. If women were disproportionately represented among the group with outdated skills, or became a discriminated group – they might face additional burden in transition from unemployment to employment. Finally, we might ask what other non-labor related issues might affect women participation differently than men’s. A possible list includes, among others, their engagement in caring activities or health problems. However, a more detailed explanation of changes in the labor supply lies beyond the scope of this work.

The reminder of the paper is as follows. In the next section we describe data used to analyze women’s activity in the labor market, their relative chances to move from unemployment to employment, and their own perception about the equal rights of women and men in the labor market. Moreover, we provide description of the methods applied to disentangle the age and cohort effects. Section 3 presents the results of the analysis that indicate the importance of birth cohort effect in women empowerment in the labor market. The effect is stronger among EU-15 countries. The last section concludes.

2. Data and Methodology

In order to analyse the attitudes of women towards employment from different perspectives we use two different data sources, namely European Union Labor Force Survey (EU LFS), and World Values Surveys (WVS). The former allows us to look at women's relative performance in the labor market, while the latter to see whether women themselves think that the access to labor market should be equal.

Table 2. Data sources

Transition countries	EU LFS	WVS	Western Europe countries	EU LFS	WVS
Bulgaria	2000-2012	1997,2005	Austria	1995-2012	
Czech Republic	1998-2012	1991	Belgium	1992-2012	
Estonia	1997-2012	1996, 2011	Denmark	1992-2012	
Hungary	1997-2012	1982,1998,2009	Finland	1995-2012	1981,1996,2005
Latvia	1998-2012	1996	France	1993-2012	2006
Lithuania	1998-2012	1997	Germany	2002-2012	1997,2006,2013
Poland	1997-2012	1989,1997,2005, 2012	Greece	1992-2012	
Romania	1997-2012	1998,2005,2012	Ireland	1992-2012	
Slovakia	1998-2012	1990,1998	Italy	1992-2012	2005
Slovenia	1996-2012	1995,2005,2011	Luxembourg	1992-2012	
			Netherlands	1996-2012	2006,2012
			Portugal	1992-2012	
			Spain	1992-2012	
			Sweden	1995-2012	1981,1996,1999,2006,2011
			United Kingdom	1992-2012	1998,2005

Source: Own preparation

EU LFS is a dataset compiled by the Eurostat on the basis of Member States LFS. The variables coming from separate national surveys were standardized which ensures comparability. Importantly, the data is available not only for the post-accession years, but also covers the longest possible pre-accession period. Thus, the datasets for the nineties and early two-thousands are available not only for EU-15 countries, but also for EU-transition countries.

WVS data is collected within a global research project concentrated on people's values and beliefs. Since 1981 representative national surveys were conducted in almost 100 countries. The dataset contains very rich information concerning gender equality: there are questions regarding respondent's attitude towards women's various possible roles, like mother, wife or worker. Unfortunately, this data is not collected regularly for all the selected countries, thus the information

for one country can be available for less (or more) and different points in time than for the other. Table 2 shows data availability for Western Europe and transition economies in EU LFS and WVS.

EU LFS was designed for labor market analysis, and, to the best of our knowledge, is the best source for the analysis of EU citizens' labor market status. The focus of this study is the relative position of women in the labor market, and we intend to investigate both their willingness to work, as well as their access to jobs. We assume that active labor market status indicates the former. If the person is self-employed, wage-employed, or does not have a job but is actively looking for one we assume that such person is willing to work *in given social and economic conditions*. Relating such measure to discrimination is rather a difficult task. First of all, we cannot disentangle whether women is inactive because of her preference, or because of potentially discriminatory working conditions that she would face on the labor market. Moreover, the fact of being active does not preclude experiencing discrimination. Leaving aside the inequality of wages, the fact of having particular labor market status can be the result of two opposite scenarios e.g. women can be self-employed because she was discriminated against while competing for dependent employment offers, or because she is empowered enough to engage in independent employment. Thus, our aim is to measure the differences in activity rates between women and men having similar characteristics, and disentangle whether variability between women of different age is related to age or cohort effect. Making a judgment, whether these differences are related to discrimination, lies beyond the scope of this work.

As a measure of access to employment we construct a dummy variable, that takes value of one if person is wage-employed, and zero if person is unemployed. Self-employed and inactive persons are kept aside in this second measure. For reasons described earlier it is hard to judge what are the reasons for a person of being self-employed, and it would be also controversial to claim that inactive person has limited access to employment if the respondent admits that is not looking for one. On the other hand, according to EU LFS definition unemployed person is actively looking for dependent employment, and wage-employed person was already successful in doing so. If women are more often unemployed in comparison with similar men, then we can claim that they potentially face some additional burden in accessing jobs. Women situation on the labor market is partially related to the conditions beyond their influence, and partially due to their attitude towards professional career, which could be expressed e.g. by their engagement in educational activities. In order to control for differences in characteristics, we compare only women and men with exactly the same age, education, family status and type of residence. However, such characteristics would not capture whether women themselves think that they should have equal access to jobs. Thus, we complement the analysis of women's relative labor market status with the investigation of their attitude towards equal employment rights with the use of WVS data. The three mentioned measures are described in more detail below.

Willingness to work

In order to analyze the relative willingness of women to compete in the labor market we firstly investigate the activity rates over time by age categories. Although the EU LFS does not have a panel dimension, we treat respondents at certain age as representatives of specific age category, so we incorporate the *synthetic cohort* approach. We restrict our analysis to women in the prime age,

namely between 25 and 60 years olds. Given that below 25 big share of inactivity is due to education, and after 60 - to retirement, this restriction should not affect the results.

Following the vast literature on gender differences in the labor market that underlines the importance of comparing similar men and women, we construct the measure of probability of being active for individuals within a particular set of demographic characteristics. For each data point available (country-year) we estimated two probit models, one for each gender, where the dependent variable indicates if person is active or not. Age, level of education, marital status, being a parent and living area (urban vs. rural) are our control variables.

We applied following probability equation:

$$P(\text{active} = 1 | \text{gender}) = \alpha + \beta_1 \text{age} + \beta_2 \text{edum} + \beta_3 \text{eduh} + \beta_4 \text{relation} + \beta_5 \text{kid} + \beta_6 \text{urban}$$

where *age* is treated as a continuous variable with values from 27 (for people aged 25 to 29) to 57 (for people aged 55 to 59); *edum* and *eduh* are dummies indicating the medium and high education respectively; *relation* is a dummy indicating if the person is in a stable relationship (either formal or informal) or single (also divorced, separated or widowed); *kid* is a dummy for the presence of at least one child younger than 6 years old in the household and *urban* is a dummy indicating if person is living in a city above 50 thousand inhabitants. In EU LFS information about age is only available in 5-year intervals. Standardized variable for education has three levels: low for ISCED levels from 0 to 2, medium for ISCED levels 3 and 4, and high for ISCED levels 5 and 6.

For each woman we constructed also the measure of relative disadvantage in activity on the labor market, understood as the difference between the probability of men with the same set of characteristics to be active, and her probability to be active.

Access to jobs

We apply the same procedure to construct a measure of the relative disadvantage of women in the access to employment. However, we restrict the sample to those individuals who are wage-employed or actively searching for a job. We calculate the probabilities (separately for men and women) that an individual with certain characteristics belongs to the former group. The final step is to calculate a measure of disadvantage in the access to labor market for each woman, which we compute as the difference between her employment status (0/1) and the probability of being employed for men with the same characteristics (perfect matching).

Preference for equal access to jobs

Finally, we investigate how women's attitude towards equal chances for men and women in the labor market changed during last three decades. We treat percentages of women in the World Values Survey sample who agreed with the statement: "When jobs are scarce, men should have more right to a job than women" as a measure of their beliefs in equal participation. Respondents can agree with the previous statement, disagree or be indifferent ("neither"). Therefore, we expect that only women with a strong belief that men have more rights to employment would agree with

this sentence. As we analyze how women perceive their position on the labor market and their rights to equal treatment, we limit our analysis to female respondents.

Attitudes toward equal access to jobs differ vastly between countries. During transition process in many Central and Eastern Europe countries, almost half of the women claimed that when situation on the labor market is difficult men should have priority in access to employment (e.g. in 1990 in Slovakia 47% of women agreed with the statement). Since then, almost in every transition country in our sample the percentage of women with preference for unequal access to employment dropped. The exception is Romania where in the late 90's 30% women agreed with the statement and now result is higher by more than 15 percentage points¹. In Western countries females are much more equality oriented. In Sweden, where views about equality are the most popular, less than 1% of women believe that in some circumstances men have more rights to jobs. On average, in Western countries, less than 10% of females agreed with the statement.

Deaton decomposition

One of the aims of this work is to emphasize the importance of disentangling age and cohort effects to understand the changes in the relative position of women in the labor market. Thus, we apply Deaton (1997) decomposition to the EU-LFS data. This method allows us to get separate age, birth cohort and year effects with only one regression. Since birth cohort is defined as a difference between current year and age, the inclusion of the three variables in a regression results in perfect collinearity. Following Deaton we assume that year effects are orthogonal to a time trend and they add up to zero. Based on this assumption, we can construct new year variables as follows: $d_t = year_t - [(t - 1)year_2 - (t - 2)year_1]$, where $year_t$ – is a year dummy and the $year_1$ is equal to one when observation is from the first year in the sample, $year_2$ - from the second, etc. Then, we drop the dummies for the first age, cohort and the first two year dummies.

Using Deaton decomposition requires at least three points in time and assumption about cyclical behavior of the time effects. In most transition countries, the World Values Survey was conducted only twice, which makes the Deaton decomposition unfeasible. Moreover it is not justified, to assume that effects correspond to a cyclical time trend. Because of this limitation, we use synthetic cohort approach (Browning et al., 1985): we calculate the average values for groups of people born in the same year in each wave separately. Then we link these averages for such birth cohorts in consecutive years in the sample – time series obtained using this method is our age pattern.

3. Results

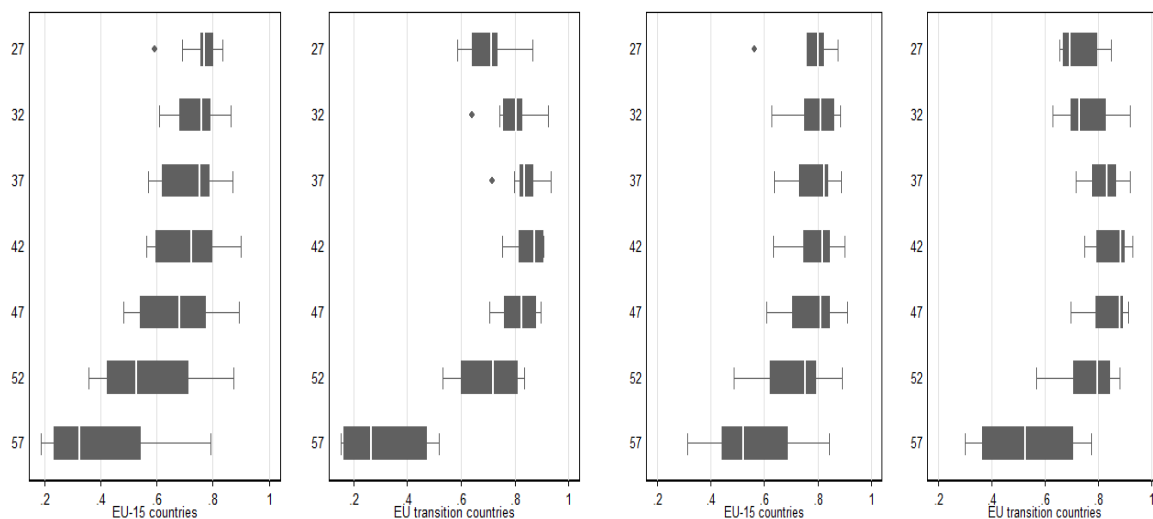
Between 2000 and 2010 the activity rates increased for every age category, both in EU-15 and EU-transition countries. Moreover, in both groups the variance of activity rates between age categories decreased over time. Currently, only women of age 55-60 have visibly lower participation rates. The comparison of changes in EU-15 and EU-transition ratifies the results presented in Figure 1: we

¹ Results for transition and western European countries are presented in Table 5.

observe a larger increase in participation for women of all ages in EU15 countries than in EU transition economies. As a result, we observe an inversion of the roles. While in the year 2000, women from transition countries had, on average, a higher participation rate than in the EU-15; nowadays, the participation of older women in EU-15 countries is higher and comparable to that in EU-transition countries, while younger women younger than 35 have visibly higher participation rate in EU-15 countries (Figure 2).

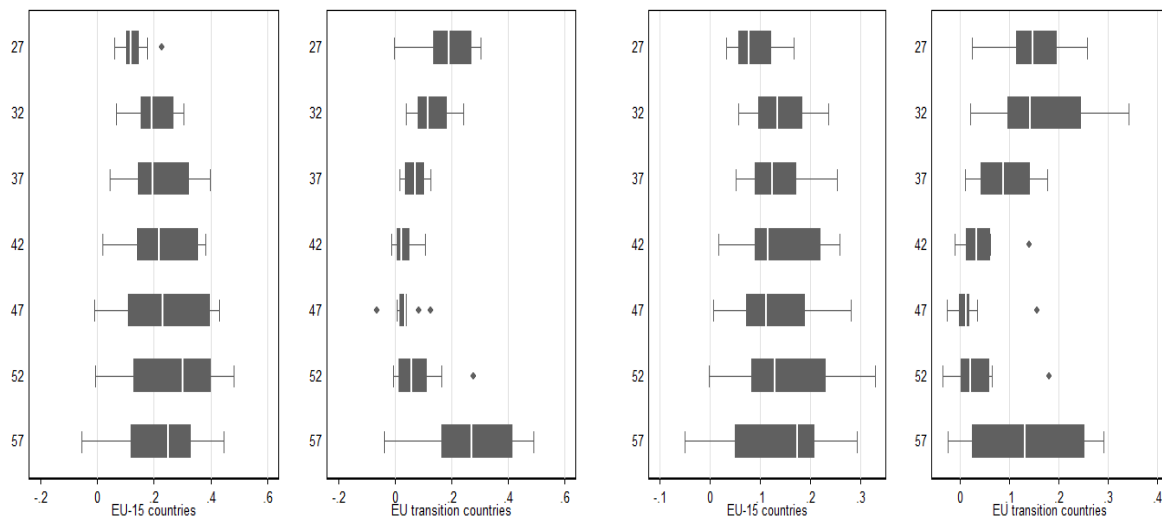
The differences between EU-15 and EU-transition countries are more evident when we compare men and women of a similar age. In EU-15, the percentage point differences between activity rates of men and women decreased for all age categories. In EU-transition economies for women 40-55 the differences were and remained close to 0, for the oldest analyzed group they decreased – which is possibly related to changes in retirement age regulations, but for women younger than 40 the situation worsened.

Figure 2. Women's activity rates in 2000 (left) and 2010 (right) by country group and age category



Source: Own preparation based on EU LFS data

Figure 3. Differences in men's and women's activity rates in 2000 (left) and 2010 (right) by country group and age category



Source: Own preparation based on EU LFS data

In the next section, we complement this visual analysis with the results from the Deaton (1997) decomposition.

Willingness to work

The results of the Deaton (1997) decomposition confirm the intuition regarding the changes in relative position of women in EU-15 and EU-transition countries. When it comes to age effects, women in EU-15 and EU-transition countries appear to behave in a similar fashion. For most countries the differences in activity between women and men decrease with age (base category is the youngest group). The coefficients in the regression on the age effects show significant and declining age pattern (see Table 3, first column). It is worth reminding that such pattern was estimated on comparable men and women. Possibly, raw differences in activity rates are bigger among older women and men, than among the younger, but e.g. differences in education levels may partly explain the former, but not the latter. In such case we still may observe the differences decreasing with age for *comparable* women and men.

Among the EU-15 countries there is a universal pattern. First, differences slightly grow in most cases for women aged 30-34 and 35-39 (it might be due to childrearing effect), but then the coefficients become negative which means that women above 40 have an activity rate more similar to men, and that these gender differences continue to vanish as women age (see Figure A1 in the Appendix).

Among transition economies, the differences in every age group are smaller than among women aged 25-30. This is also true for women aged 30-39 which can be due to the fact that the childbearing happens on average earlier than in EU-15 countries. Slovakia and Slovenia are the exceptions - the differences grow there with age. In Latvia and Bulgaria the age effects are very

small (see Figure A1 in the Appendix). Overall the decrease in gender differences with age is stronger in EU-15 countries (negative and significant coefficient for transition economies dummy).

The only significant differences between EU-transition and EU-15 countries in the particular age group effects we can find in the two oldest groups.

But dominating impact on changes in the gender gap in participation have birth cohort. Common pattern for EU-15 countries is positive in comparison to the youngest cohort (we use the cohort born between 1982 and 1987 as the reference category), but declining with age. For transition countries the results are exactly opposite (Table 4, first column). Among the EU-15 countries, the point estimates are positive for all countries but Finland. This result indicates that gender differences were bigger for earlier cohorts. The relationship appears to be linear with the most disadvantaged position of the women born 1937-1941 (see Figure A2 in the Appendix).

Among EU-transition economies, no clear pattern emerges from the data. In some countries there is improvement over time with cohorts born later having more equal position in the labor market (Romania, Lithuania, Hungary, Poland), while in some other countries in that group the differences are actually smaller for the cohorts born earlier, which indicates that women from younger cohorts may actually face more obstacles in the labor market. In general cohort effects in EU-transition countries are much smaller than in EU-15.

Access to jobs

While in case of differences in activity rates, even if only similar women and men are compared, one could claim that they reflect the differences in preferences, such argument does not apply to the differences in the probabilities of being wage-employed versus unemployed. By definition, an unemployed person is determined to change her status, thus staying unemployed is the opposite to such person wishes (unemployed person are determined to change their status, thus staying unemployed is the opposite their expressed preferences). Performing the Deaton (1997) decomposition on our measure for access to jobs reveals a similar pattern to the changes of women's willingness to work (Table 3 and Table 4, second columns). In most of the EU-15 countries women born later have an access to jobs more similar to that of men. Positive coefficients for cohorts born prior 1977 indicate that the differences between men's and women's probabilities to be in dependent employment were for them bigger in comparison with the women's cohort born 1977-1981. In most of the transition economies, earlier-born women enjoyed, on average, more equality in the access to jobs. Positive changes, understood as smaller gender differences among younger cohorts, were observed only for Poland, Romania and Estonia. The estimated age effects in EU-15 either indicate smaller gender differences among older women or very small variation between age categories in that matter. Among the EU-transition economies there are more examples of less equal access to jobs among older women, but the coefficients are generally smaller than for the cohort effects (see Figure B1 and B2 in the Appendix).

Table 3. Results of the OLS regression on age effects obtained in the Deaton (1997) decomposition.

VARIABLES	(1) age effects - active	(2) age effects - employed
transition country	-0.08*** (0.02)	-0.07*** (0.02)
age: 30-34	-0.02* (0.01)	-0.01 (0.01)
age: 35-39	-0.07*** (0.01)	-0.03** (0.01)
age: 40-45	-0.11*** (0.01)	-0.04*** (0.01)
age: 45-49	-0.14*** (0.01)	-0.06*** (0.01)
age: 50-55	-0.18*** (0.01)	-0.07*** (0.01)
age: 30-34 * transition	-0.01 (0.02)	0.00 (0.02)
age: 35-39 * transition	0.01 (0.02)	0.01 (0.02)
age: 40-45 * transition	0.04* (0.02)	0.02 (0.02)
age: 45-49 * transition	0.06*** (0.02)	0.03 (0.02)
age: 50-55 * transition	0.09*** (0.02)	0.03* (0.02)
country fixed effects	included	included
constant	0.06*** (0.02)	0.06*** (0.01)
Observations	150	150
R-squared	0.854	0.831

¹ Reference age group: 25-29
Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4. Results of the OLS regression on cohort effects obtained in the Deaton (1997) decomposition.

VARIABLES	(1) cohort effects - active	(2) cohort effects - employed
transition country	-0.06* (0.03)	-0.06** (0.03)
cohort born between 1937-1941	0.25*** (0.02)	0.04** (0.02)
cohort born between 1942-1946	0.21*** (0.02)	0.04** (0.02)
cohort born between 1947-1951	0.18*** (0.02)	0.04** (0.02)
cohort born between 1952-1956	0.15*** (0.02)	0.03** (0.02)
cohort born between 1957-1961	0.11*** (0.02)	0.03* (0.02)
cohort born between 1962-1966	0.08*** (0.02)	0.02 (0.02)
cohort born between 1967-1971	0.05*** (0.02)	0.01 (0.02)
cohort born between 1972-1976	0.03 (0.02)	0.01 (0.02)
cohort born between 1937-1941 * transition	-0.24*** (0.04)	-0.03 (0.03)
cohort born between 1942-1946 * transition	-0.21*** (0.03)	-0.08*** (0.03)
cohort born between 1947-1951 * transition	-0.18*** (0.03)	-0.06** (0.03)
cohort born between 1952-1956 * transition	-0.15*** (0.03)	-0.05** (0.03)
cohort born between 1957-1961 * transition	-0.12*** (0.03)	-0.04 (0.03)
cohort born between 1962-1966 * transition	-0.09*** (0.03)	-0.03 (0.03)
cohort born between 1967-1971 * transition	-0.06* (0.03)	-0.02 (0.03)
cohort born between 1972-1976 * transition	-0.02 (0.03)	-0.01 (0.02)
country fixed effects	included	included
constant	0.03 (0.02)	-0.01 (0.02)
Observations	219	219
R-squared	0.864	0.812

¹ Reference cohort group: born between 1977-1981
Standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1

Preference for equal access to jobs

The last part of our study is about women's attitude towards equal rights for men and women to a job. As we expected in transition countries pro-equality beliefs are about twice less popular than in Western countries. Between transition countries, the most equality oriented is Estonia, where women think more like those living (and working) in Western Europe. Similarly, there are also exceptions among the EU-15 countries: in Germany and in the UK, women quite often think that during economic downturns men shall have more right to a job. Data availability precludes the use of Deaton decomposition, but Table 5 indicates the potential existence of age and cohorts effects. Independently from survey year and country, younger women appear to have more equality oriented beliefs. Possibly women enter the labor market with stronger views about the equality in rights to employment, but after that face both wage inequality, and relatively stronger burden of childcare they might relax their opinion about who should keep the work if one of the partners was about to lose it.

Table 5. Percentage of women who answered "I agree with the statement: when job are scarce, men should have more right to a job than women" - age patterns

		25-29	30-34	35-39	40-44	45-49	50-54	55-59
Transition countries	90's	22.7%	24.7%	24.7%	31.4%	38.2%	34.1%	42.5%
	2000's	18.4%	15.8%	22.1%	21.1%	21.3%	26.1%	26.4%
	2010's	15.3%	21.2%	19.7%	19.0%	24.3%	21.8%	25.4%
Western countries	90's	9.0%	11.1%	13.0%	18.1%	21.7%	26.5%	25.7%
	2000's	7.2%	8.9%	8.5%	6.9%	11.1%	8.1%	13.7%
	2010's	1.6%	6.2%	4.4%	4.9%	5.0%	7.1%	6.0%

Source: Own preparation based on WVS data

Cohort patterns show a similar story – women born earlier more frequently believe that males have more right to a job than women (see Table 6). In transition countries, the percentage of women with such beliefs presents a slight U-shape, which indicates that the beliefs might be affected by the economic conditions, an particular with the impact of the financial crisis. Among the youngest – especially in Western European countries differences are very small.

Table 6. Percentage of women who answered “I agree with the statement: when job are scarce, men should have more right to a job than women” - cohort patterns

		1936-1941	1942-1946	1947-1951	1952 - 1956	1957-1961	1962-1966	1967-1971	1972-1976	1977-1981
Transition countries	90's	41.7%	35.1%	36.2%	33.6%	25.1%	24.9%	19.9%	23.5%	16.4%
	2000's	33.7%	20.7%	25.0%	26.5%	22.8%	21.8%	18.7%	18.1%	18.1%
	2010's	31.8%	32.1%	30.2%	24.4%	23.9%	23.7%	19.5%	21.8%	19.2%
Western countries	90's	25.4%	27.7%	20.5%	18.2%	14.7%	10.8%	9.1%	5.4%	6.4%
	2000's	21.2%	12.1%	14.2%	8.4%	9.5%	6.7%	9.0%	9.3%	6.7%
	2010's	13.6%	12.7%	8.4%	7.9%	7.7%	4.3%	4.9%	3.7%	6.2%

Source: Own preparation based on WVS data

4. Conclusions

Obtaining an accurate assessment of the progress in gender equality in the labor market poses several challenges. First, labor market outcomes of women that are more similar to men can reflect less discrimination, but can also be fully or partially related to women's stronger efforts to acquire those characteristics. Second, positive (or negative) changes might be underestimated because they affect only new generations, while the outcomes are often measured for the whole labor force. Third, it is difficult to disentangle the impact of women's preferences from some external factors influencing their decisions. In this paper we deal with each of mentioned issues: we control for individual characteristics when comparing women and men, we implement decomposition techniques to extract the cohort effects for analyzed changes of selected measures, and we construct the measures that have a potential to reflect both the willingness and possibilities of women to work, and their attitudes towards equal positions of women and men in the labor market.

Results of this study suggest that in EU-15 countries women born later enjoy a more equal position on the labor market. Their probabilities to be active are closer to those of similar men, when compared to older cohorts. Such pattern was observed in almost all EU-15 countries, which reflects the higher engagement of current generations of women in their professional careers. Moreover, the probabilities to be in dependent employment versus unemployment are also more similar to those of men for women born between 1977 and 1981 than for those born prior 1977. Thus, women are not only participating more, but their chances to find employment are also more similar to chances that men enjoy. Women attitudes towards equal gender positions on the labor market changed in line with the labor market participation and employment rates: younger cohorts less often agreed to the statement that men should have more right to a job under tight labor market conditions.

The picture for transition economies is much more puzzling. While younger cohorts are more empowered in their views concerning equality on labor market, the gender differences in probabilities to be active are among younger generations similar or even bigger when compared to older generations. Such picture calls for policy action. While EU-15 countries experienced a significant improvement regarding both women's beliefs about gender equality on the labor market and their realization, among transition economies their relative position on the labor market stagnated or even worsened, while the improvement in beliefs towards equal access to jobs is insufficient leaving EU-transition countries behind Western Economies. Analysis of institutional, historical or economic factors that determine described changes calls for further research.

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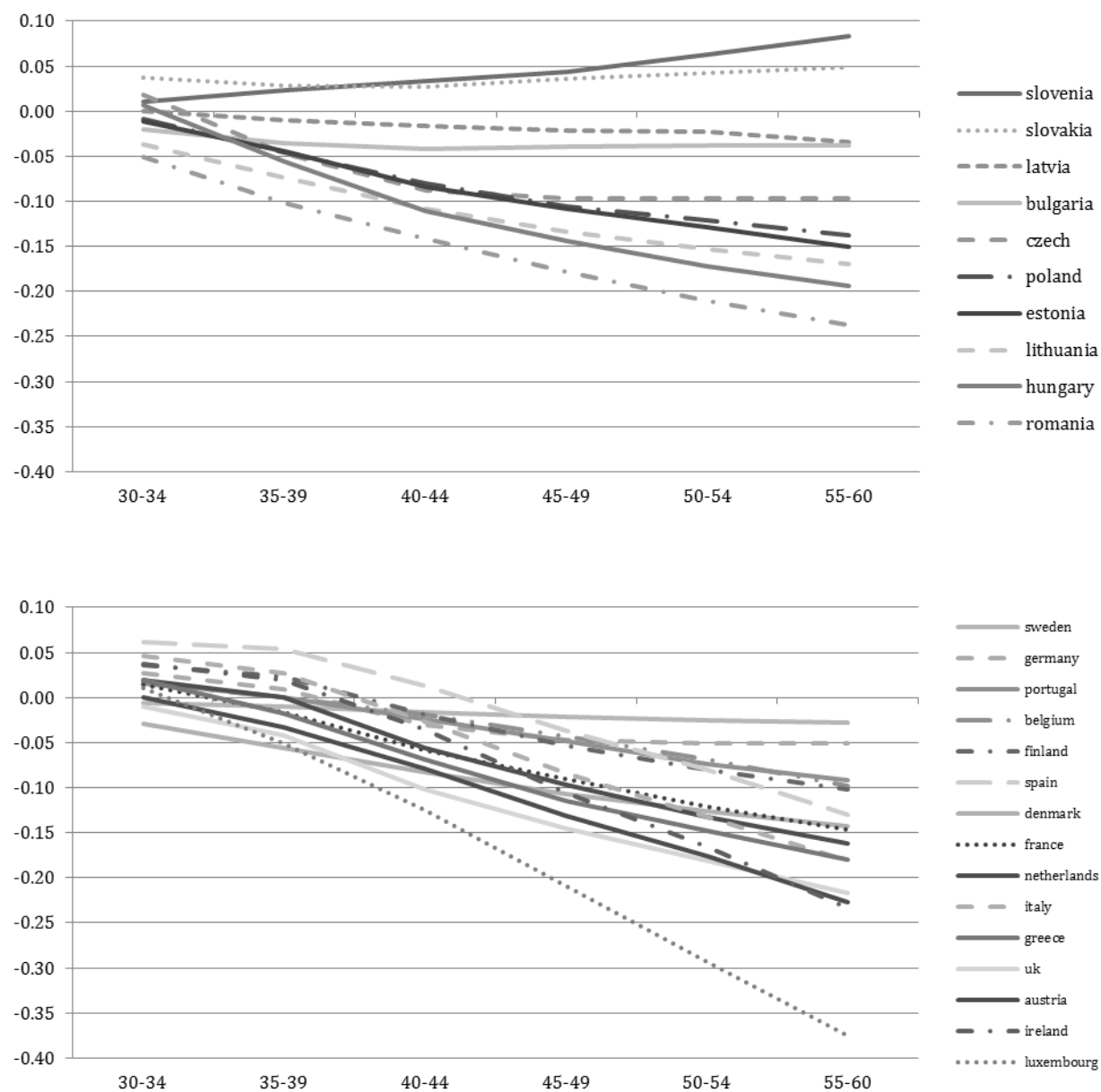
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Appendix

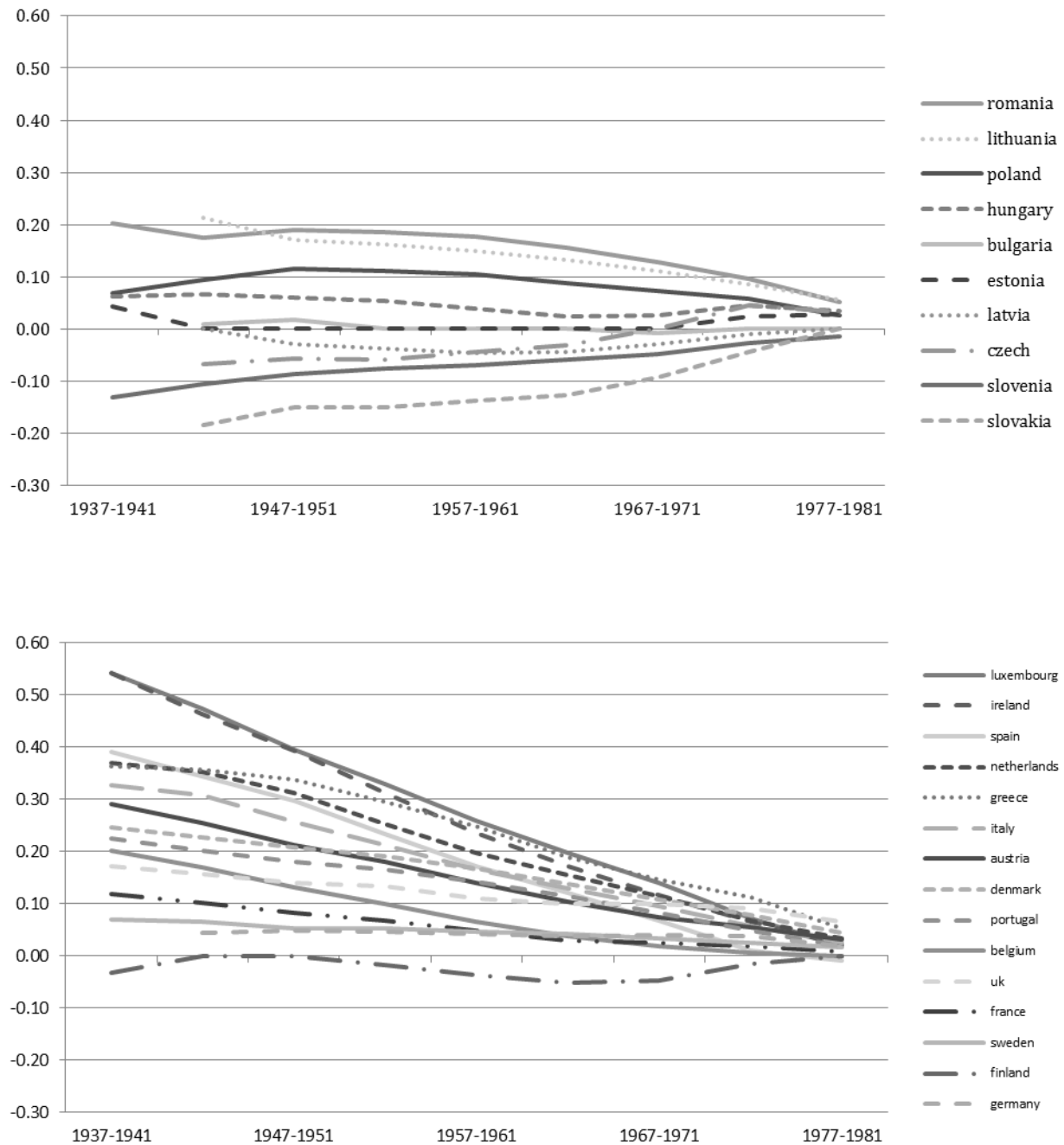
Figure A1. Gender differences in activity rates: age effect in transition (above) and EU-15 countries (below).



The graph presents coefficient from Deaton (1997) decomposition (age group of 25-30 as base category)

Source: Own preparation based on EU LFS data.

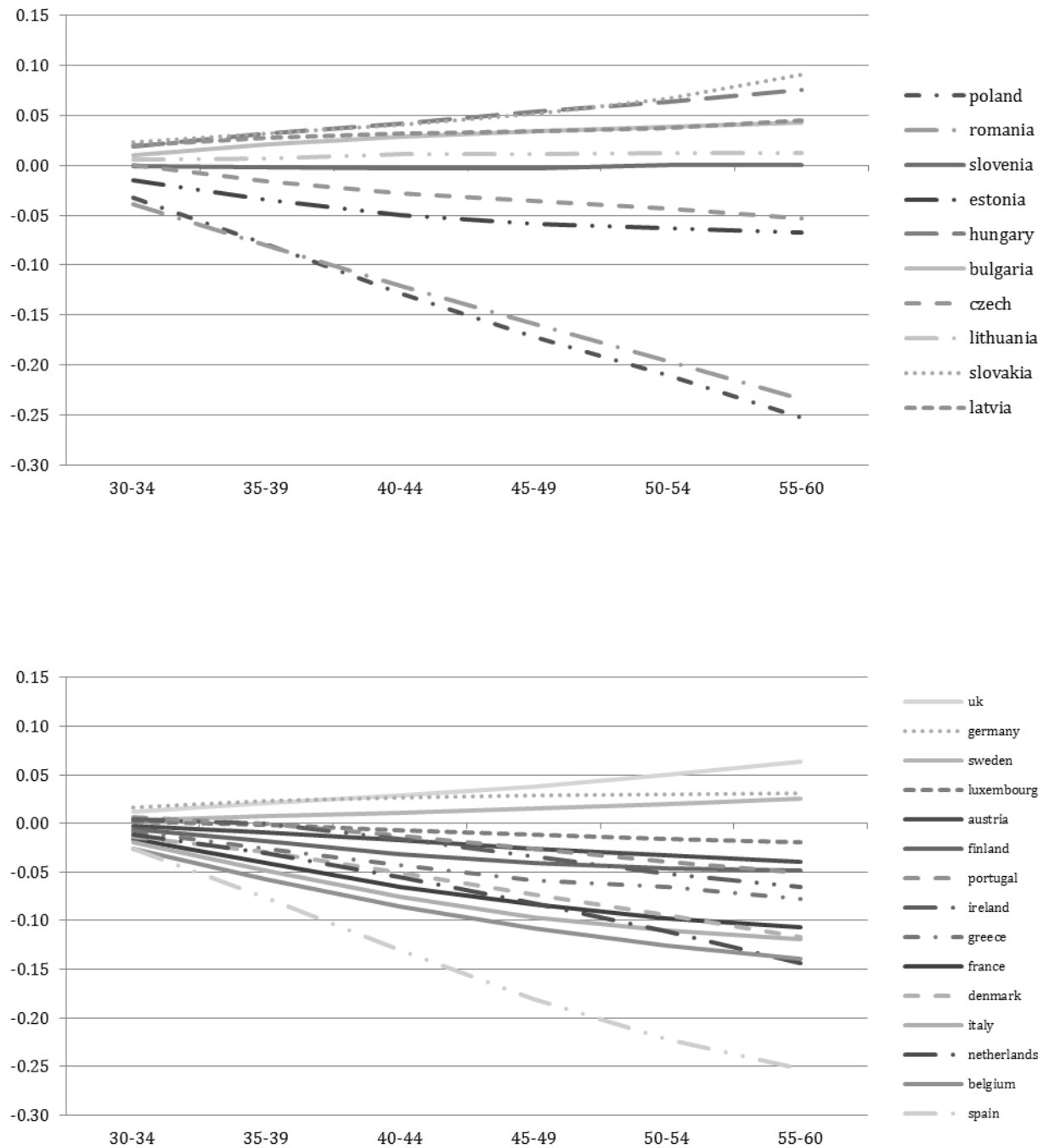
Figure A2. Gender differences in activity rates: cohort effect in transition (above) and EU-15 countries (below).



The graph presents coefficient from Deaton (1997) decomposition (cohort born in 1982-1987 as base category)

Source: Own preparation based on EU LFS data.

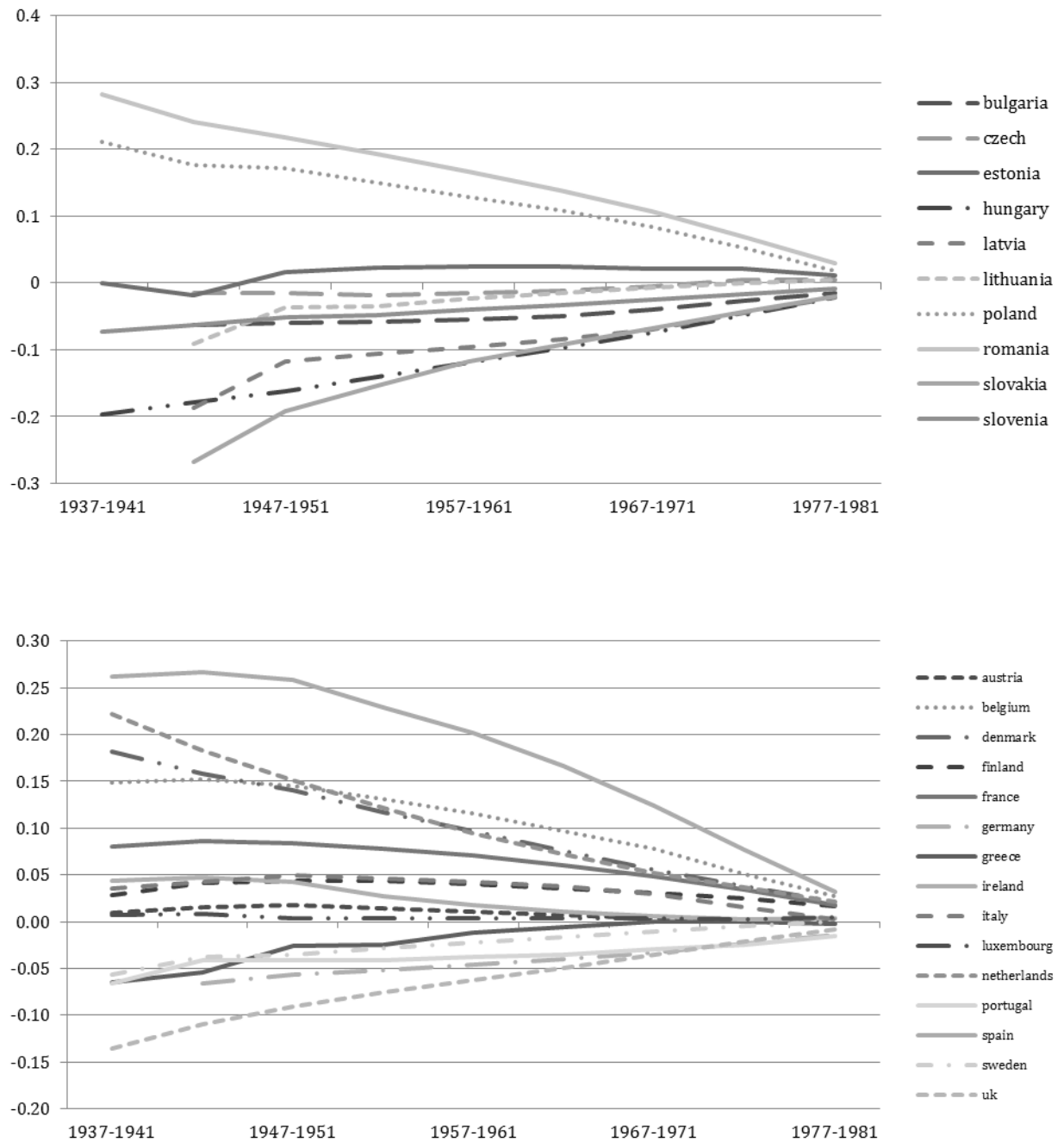
Figure B1. Gender differences in employment rates: age effect in transition (above) and EU-15 countries (below).



The graph presents coefficient from Deaton (1997) decomposition (age group of 25-30 as base category)

Source: Own preparation based on EU LFS data.

Figure B2. Gender differences in employment rates: cohort effect in transition (above) and EU-15 countries (below).



The graph presents coefficient from Deaton (1997) decomposition (cohort born in 1982-1987 as base category)

Source: Own preparation based on EU LFS data.

Table A1.1. Gender differences in activity rates: age effects in transition countries.

	Age groups:					
	30-34	35-39	40-44	45-49	50-54	55-60
Poland	-0.01	-0.05	-0.08	-0.11	-0.12	-0.14
Romania	-0.05	-0.10	-0.14	-0.18	-0.21	-0.24
Slovenia	0.01	0.02	0.03	0.04	0.06	0.08
Estonia	-0.01	-0.04	-0.08	-0.11	-0.13	-0.15
Hungary	0.01	-0.06	-0.11	-0.14	-0.17	-0.19
Bulgaria	-0.02	-0.03	-0.04	-0.04	-0.04	-0.04
Czech	0.02	-0.05	-0.09	-0.10	-0.10	-0.10
Lithuania	-0.04	-0.07	-0.11	-0.13	-0.15	-0.17
Slovakia	0.04	0.03	0.03	0.04	0.04	0.05
Latvia	0.00	-0.01	-0.02	-0.02	-0.02	-0.03

Source: Own preparation based on EU LFS data. All parameters significant at 1% level.

Table A1.2. Gender differences in activity rates: age effects in EU-15 countries.

	Age groups:					
	30-34	35-39	40-44	45-49	50-54	55-60
Austria	0.00	-0.03	-0.08	-0.13	-0.18	-0.23
Belgium	0.02	0.00	-0.02	-0.04	-0.07	-0.10
Finland	0.04	0.02	-0.02	-0.05	-0.08	-0.10
France	0.01	-0.02	-0.06	-0.09	-0.12	-0.15
Greece	0.02	-0.02	-0.07	-0.12	-0.15	-0.18
Denmark	-0.03	-0.06	-0.08	-0.11	-0.13	-0.14
Ireland	0.04	0.02	-0.04	-0.11	-0.17	-0.23
Italy	0.05	0.03	-0.03	-0.08	-0.13	-0.18
Luxembourg	0.01	-0.05	-0.12	-0.21	-0.29	-0.38
Netherlands	0.02	0.00	-0.06	-0.10	-0.13	-0.16
Portugal	0.02	0.00	-0.02	-0.05	-0.07	-0.09
United Kingdom	-0.01	-0.04	-0.10	-0.14	-0.18	-0.22
Germany	0.03	0.01	-0.03	-0.05	-0.05	-0.05
Spain	0.06	0.05	0.01	-0.04	-0.08	-0.13
Sweden	-0.01	-0.01	-0.02	-0.02	-0.03	-0.03

Source: Own preparation based on EU LFS data. All parameters significant at 1% level.

Table A2.1. Gender differences in activity rates: cohort effects in transition countries.

	Birth cohorts:								
	1937-1941	1942-1946	1947-1951	1952-1956	1957-1961	1962-1966	1967-1971	1972-1976	1977-1981
Poland	0.07	0.09	0.12	0.11	0.10	0.09	0.07	0.06	0.03
Romania	0.20	0.18	0.19	0.19	0.18	0.16	0.13	0.10	0.05
Slovenia	-0.13	-0.11	-0.09	-0.08	-0.07	-0.06	-0.05	-0.03	-0.01
Estonia	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.03
Hungary	0.06	0.07	0.06	0.05	0.04	0.02	0.03	0.04	0.03
Bulgaria		0.01	0.02	0.00	0.00	0.00	-0.01	0.00	0.00
Czech		-0.07	-0.06	-0.06	-0.04	-0.03	0.00	0.04	0.03
Lithuania		0.21	0.17	0.16	0.15	0.13	0.11	0.09	0.06
Slovakia		-0.18	-0.15	-0.15	-0.14	-0.13	-0.09	-0.04	0.00
Latvia		0.00	-0.03	-0.04	-0.05	-0.04	-0.03	-0.01	0.00

Source: Own preparation based on EU LFS data. All parameters significant at 1% level.

Table A2.2. Gender differences in activity rates: cohort effects in EU-15 countries.

	Birth cohorts:								
	1937-1941	1942-1946	1947-1951	1952-1956	1957-1961	1962-1966	1967-1971	1972-1976	1977-1981
Austria	0.29	0.25	0.21	0.18	0.14	0.10	0.07	0.06	0.03
Belgium	0.20	0.17	0.13	0.10	0.06	0.04	0.02	0.01	0.00
Finland	-0.03	0.00	0.00	-0.02	-0.04	-0.05	-0.05	-0.02	0.00
France	0.12	0.10	0.08	0.07	0.05	0.03	0.02	0.02	0.01
Greece	0.36	0.36	0.34	0.30	0.25	0.19	0.15	0.11	0.05
Denmark	0.25	0.23	0.21	0.19	0.17	0.14	0.11	0.08	0.04
Ireland	0.54	0.46	0.39	0.31	0.24	0.17	0.12	0.06	0.02
Italy	0.33	0.31	0.26	0.21	0.17	0.13	0.10	0.06	0.02
Luxembourg	0.54	0.47	0.40	0.33	0.26	0.20	0.14	0.07	0.02
Netherlands	0.37	0.35	0.31	0.25	0.20	0.15	0.11	0.07	0.03
Portugal	0.22	0.20	0.18	0.16	0.14	0.11	0.08	0.05	0.02
United Kingdom	0.17	0.16	0.14	0.13	0.11	0.10	0.10	0.09	0.07
Germany		0.04	0.05	0.05	0.04	0.04	0.04	0.04	0.02
Spain	0.39	0.34	0.30	0.23	0.17	0.12	0.07	0.01	-0.01
Sweden	0.07	0.06	0.05	0.05	0.05	0.04	0.03	0.03	0.02

Source: Own preparation based on EU LFS data. All parameters significant at 1% level.

Table B1.1. Gender differences in employment rates: age effects in transition countries.

	Age groups:					
	30-34	35-39	40-44	45-49	50-54	55-60
Poland	-0.03	-0.08	-0.13	-0.17	-0.21	-0.25
Romania	-0.04	-0.08	-0.12	-0.16	-0.20	-0.23
Slovenia	0.00	0.00	0.00	0.00	0.00	0.00
Estonia	-0.01	-0.03	-0.05	-0.06	-0.06	-0.07
Hungary	0.02	0.03	0.04	0.05	0.06	0.08
Bulgaria	0.01	0.02	0.03	0.03	0.04	0.04
Czech	0.00	-0.02	-0.03	-0.04	-0.04	-0.05
Lithuania	0.01	0.01	0.01	0.01	0.01	0.01
Slovakia	0.02	0.03	0.04	0.05	0.07	0.09
Latvia	0.02	0.03	0.03	0.03	0.04	0.04

Source: Own preparation based on EU LFS data. All parameters significant at 1% level.

Table B1.2. Gender differences in employment rates: age effects in EU-15 countries.

	Age groups:					
	30-34	35-39	40-44	45-49	50-54	55-60
Austria	0.00	-0.01	-0.02	-0.03	-0.03	-0.04
Belgium	-0.03	-0.06	-0.09	-0.11	-0.13	-0.14
Finland	-0.01	-0.02	-0.03	-0.04	-0.05	-0.05
France	-0.02	-0.04	-0.07	-0.08	-0.10	-0.11
Greece	-0.01	-0.03	-0.04	-0.06	-0.07	-0.08
Denmark	-0.01	-0.03	-0.05	-0.07	-0.10	-0.12
Ireland	0.00	0.00	-0.02	-0.03	-0.05	-0.07
Italy	-0.02	-0.05	-0.08	-0.10	-0.11	-0.12
Luxembourg	0.00	0.00	-0.01	-0.01	-0.02	-0.02
Netherlands	-0.01	-0.03	-0.06	-0.08	-0.11	-0.14
Portugal	0.01	0.00	-0.01	-0.03	-0.04	-0.05
United Kingdom	0.01	0.02	0.03	0.04	0.05	0.06
Germany	0.02	0.02	0.03	0.03	0.03	0.03
Spain	-0.03	-0.08	-0.13	-0.18	-0.22	-0.25
Sweden	0.00	0.01	0.01	0.02	0.02	0.03

Source: Own preparation based on EU LFS data. All parameters significant at 1% level.

Table B2.1. Gender differences in employment rates: cohort effects in transition countries.

	Birth cohorts:								
	1937-1941	1942-1946	1947-1951	1952-1956	1957-1961	1962-1966	1967-1971	1972-1976	1977-1981
Poland	0.2	0.18	0.17	0.15	0.13	0.11	0.08	0.05	0.02
Romania	0.3	0.24	0.22	0.19	0.17	0.14	0.11	0.07	0.03
Slovenia	-0.1	-0.06	-0.05	-0.05	-0.04	-0.03	-0.02	-0.02	-0.01
Estonia	0.0	-0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01
Hungary	-0.2	-0.18	-0.16	-0.14	-0.12	-0.10	-0.07	-0.05	-0.02
Bulgaria		-0.06	-0.06	-0.06	-0.05	-0.05	-0.04	-0.03	-0.01
Czech		-0.02	-0.02	-0.02	-0.02	-0.01	-0.01	0.00	0.00
Lithuania		-0.09	-0.04	-0.03	-0.02	-0.02	-0.01	0.00	0.00
Slovakia		-0.27	-0.19	-0.15	-0.12	-0.09	-0.07	-0.04	-0.02
Latvia		-0.19	-0.12	-0.11	-0.10	-0.08	-0.07	-0.05	-0.02

Source: Own preparation based on EU LFS data. All parameters significant at 1% level.

Table B2.2. Gender differences in employment rates: cohort effects in EU-15 countries.

	Birth cohorts:								
	1937-1941	1942-1946	1947-1951	1952-1956	1957-1961	1962-1966	1967-1971	1972-1976	1977-1981
Austria	0.01	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00
Belgium	0.15	0.15	0.14	0.13	0.12	0.10	0.08	0.05	0.03
Finland	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.02
France	0.08	0.09	0.08	0.08	0.07	0.06	0.05	0.03	0.02
Greece	-0.06	-0.05	-0.03	-0.02	-0.01	-0.01	0.00	0.00	0.00
Denmark	0.18	0.16	0.14	0.12	0.10	0.08	0.06	0.04	0.02
Ireland	0.04	0.05	0.04	0.03	0.02	0.01	0.01	0.00	0.00
Italy	0.03	0.04	0.05	0.05	0.04	0.04	0.03	0.01	0.00
Luxembourg	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Netherlands	0.22	0.18	0.15	0.12	0.09	0.07	0.05	0.04	0.02
Portugal	-0.07	-0.04	-0.04	-0.04	-0.04	-0.04	-0.03	-0.02	-0.01
United Kingdom	-0.14	-0.11	-0.09	-0.08	-0.06	-0.05	-0.04	-0.02	-0.01
Germany		-0.07	-0.06	-0.05	-0.05	-0.04	-0.03	-0.02	-0.01
Spain	0.26	0.27	0.26	0.23	0.20	0.17	0.12	0.08	0.03
Sweden	-0.06	-0.04	-0.04	-0.03	-0.02	-0.02	-0.01	-0.01	0.00

Source: Own preparation based on EU LFS data. All parameters significant at 1% level.



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