

Discussion Paper

Draft – Comments are welcome

Employment convergence of immigrants in the European Union

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ABSTRACT

In light of the importance of immigrants' labour market integration in successful integration in the host countries, this study examines the employment convergence between foreign-born and native-born in the European Union (EU), by gender and country of origin – distinguishing immigrants born within and outside the EU – based on data drawn from the European Labour Force Survey. The estimation results point to numerous differences across immigrant groups, genders and receiving EU regions – especially between the southern “new” immigration countries and the rest of the EU15 and between the new and the old EU member states.

KEYWORDS: Immigrants, Employment, European Union

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1. Introduction

In the past decades immigration has increased in the European Union (EU) and by 2005 the EU15¹ and several new member states had a positive migration balance (Münz (2007)). In fact, since 1992, immigration has been the most significant source of population growth in the EU (Lavenex (2009)). The EU countries differ in immigration histories and given these differences, four broad groups of countries can be distinguished (despite country-specific differences). First of all, the Western EU member states are classified as the “old” immigration countries² as in these countries the immigration overbalance has continued over the past decades (Fassmann and Reeger (2008)). In several “old” immigration countries (including Belgium, France and Germany), the post-war period was characterized by immigration from Southern Europe, Turkey and North African countries to contribute to reconstruction (for detail on the magnitude of immigration flows and country-specific migration patterns within the EU see Münz (2007) and Fassmann and Reeger (2008)). In addition to the economic growth in the 1960s in Western Europe, the decolonization process initiated in 1956 (coupled with the end of the Algerian War in the 1960s) increased immigration from the ex-colonies to Western Europe, most importantly to the United Kingdom and France. Between 1972 and 1974 the Western European countries restricted immigration due to the oil price crisis, and in the 1980s and in the 1990s the number of immigrants was growing again, especially in Germany, because of the fall of the communist regimes in Central and Eastern Europe (CEE). In recent years migration was characterized by new labour migration from new EU member states (especially from Poland, Lithuania, Bulgaria and Romania) to parts of Western Europe (Münz (2007)).³ The “new” immigration countries of Southern Europe became migrant-receiving countries from the late 1970s and 1980s onwards, after the end of the right-wing dictatorship (except in Italy) which marked the start of economic growth. Immigration was characterized by the return migration of Nationals who migrated to CEE because of the Civil War in Greece, post-colonial return migration from Africa and Latin America in Portugal and Spain. In addition, Spain received immigrants from Latin America starting the mid-1970s because of the military dictatorships (Arango et al. (2009)). In Greece, because of the geographical proximity, the majority of the immigrants come from Albania (Lavenex (2009)). In the eight Eastern EU member states admitted in 2004 (EU8)⁴, communist regimes established in the 1940s prevented citizens from travelling abroad and emigrating (Hárs (2001)). In addition to east-east immigration (Hárs (2001)), in the 1990s as skilled professionals accompanied the inflow of foreign

¹ The EU15 refers to the countries comprising the EU prior to 2004 (Austria, Belgium, Denmark, Finland, France, Greece, Germany, Italy, Ireland, Luxemburg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom).

² Immigration countries are countries where immigration exceeds emigration (Fassmann and Reeger (2008)).

³ Note that in 2004 only three countries, the UK, Ireland and Sweden opened their labour markets to the new EU Member States (Münz (2007)).

⁴ The EU8 refers to the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia.

direct investment to the region. Furthermore, the EU8 is becoming an attractive destination for migrants from less prosperous countries in Eastern Europe and Asia. Note also that Estonia and Latvia have a large ethnic Russian populations (Kahanec and Zaiceva (2008) and Employment in Europe (2008)), and accordingly, these countries have a higher percentage of foreign-born individuals than the other EU8 countries (around 15 and 20 percent respectively in 2005 (Münz (2007))). Finally, the Northern EU member states, namely Denmark, Finland and Sweden share a similar immigration experience: in the late 1960s and early 1970s “guest workers” from non-European countries came to the respective countries (in smaller numbers to Finland) and from the 1980s onwards immigration from non-European countries continued (Breidahl (2008)). Note also that immigrants from Finland and Sweden are one of the largest immigrant groups in Sweden and Finland respectively (Breidahl (2008)).

Because of the ageing of European societies and growing labour market needs, immigration is expected to increase over the coming decades (Employment in Europe 2008 (2008)). Increasing immigration coupled with the lower employment rate of certain immigrant groups in the EU (for detail see Münz (2007)) has generated immigrant integration programmes⁵ in the recent years as labour market integration is seen as the most important criterion for successful integration. It must be pointed out that the heterogeneity in immigrant statuses at entry (humanitarian / family-linked migration / work), welfare systems, immigration integration policies, composition of immigrants and attitudes of society towards immigrants indicates potential heterogeneity in integration process of immigrants within the EU. For instance, in light of the differences in welfare state arrangement and immigrants’ integration policy regimes, which in turn gives rise to cross-country heterogeneity in immigrants’ social rights, Sainsbury (2006) differentiates between “immigrant inclusive” policy regimes and “immigrant exclusive” policy regimes. Subsequently, the labour market integration of immigration in several EU countries has been the focus of attention of numerous empirical analyses. In particular, the applicability of the “immigrant labour market assimilation” hypothesis (Chiswick (1978)) has been investigated in several empirical studies for the EU such as Adsera and Chiswick (2007), Amuedo-Dorantes and de la Rica (2006), Nekby (2002), Rendall et al. (2008) and Wheatley Price (1998). The immigrant labour market assimilation hypothesis predicts that the (initial) labour market disadvantage of immigrants relative to the native-born in the receiving country (due to the lack country-specific human capital and social networks, the difficulty in getting qualifications recognized, due to the imperfect transferability of job-specific and academic skills as well as institutional and individual discrimination from the employer’s side) diminish as time passes (Chiswick (1978)). Literature addressing the labour market convergence of female immigrants (for example, Rendall et al. (2008))

⁵ For detail on immigrant integration programmes aimed at increasing labour market participation see for example Breidahl (2008) and Employment in Europe 2008 (2008).

also investigate the applicability of the “family investment model” (Baker and Benjamin (1997)) according to which, immigrant men and women have different employment patterns because immigrant husbands and wives adopt a strategy in which borrowing and investing is divided across family members. Accordingly, initially immigrant wives will be more ready to lower their reservation wages in order to finance their husband’s investment in local human capital and hence immigrant women’s employment / participation levels are initially higher than that of the native-born, and the difference declines with additional years in the receiving country. Rendall et al. (2008) – analyzing labour market participation convergence of foreign- and native-born women in the “old” migrant-receiving countries of Western Europe (out of which Austria, Belgium, France, Luxemburg and the Netherlands are considered as “immigrant exclusive”) and in the “new” migrant-receiving, “immigrant inclusive” countries of Southern Europe – find that whereas the family investment model applies to Southern European countries, it does not apply to Western European countries.

In light of the importance of labour market integration, the aim of this study is to provide a descriptive empirical analysis of the labour market performance of immigrants⁶ relative to natives as their residence lengthens in the EU, by gender and country of origin. In particular, the paper analyses the employment convergence patterns of EU-born immigrants and third country immigrants⁷ in the EU. The latter distinction is important given that EU-born and non-EU-born immigrants face different immigration regimes⁸, may differ in family-role orientation (for evidence see for example Münz et al. (2006)), and in re-emigration patterns (for evidence and a discussion on re-emigration selection see Rendall et al. (2008) and Amuedo-Dorantes and de la Rica (2006)). Probit models of employment probability are estimated using the 2005 cross-section of the EU Labour Force Survey (EU LFS). Although the EU LFS has been used in existing (statistical and empirical) research on migration (for instance, Angrist and Kugler (2003), Employment in Europe 2008 (2008), Fassmann and Münz (2004), Münz et al. (2006), Münz (2007), Lemaître (2007), Liebig (2007), Rendall et al. (2008), van Tuebergen et al. (2004)), to the best of my knowledge, it has not been used to analyse the employment convergence of migrants, by gender and country of birth in the EU.

The analysis extends the existing literature in numerous ways. First of all, the paper does not restrict the analysis to selected countries of the EU15 only – as done previously in the literature, for instance, Amuedo-Dorantes and de la Rica (2006), Nekby (2002) and Wheatley Price (1998) study the labor market assimilation of migrants in Spain, Sweden and the UK respectively, Rendall et al. (2008)

⁶ Throughout the paper country of birth rather than nationality is used to identify immigrants as suggested by Münz and Fassmann (2004). For the cross-country / region analysis it is especially important to use the definition based on country of birth as the naturalization policies vary across EU member rendering the nationality-based definition problematic.

⁷ Third country immigration refers to immigration from non-EU countries.

⁸ Münz (2007) and Employment in Europe 2008 (2008) provide detail on the immigration regimes in the EU for immigrants from EU Member States and for third-country nationals.

restrict their analysis to the participation convergence of migrant women in Western and Southern Europe – but analyses the Eastern European member states (EU8) as well. To the best of my knowledge, as of today, there is no empirical study examining the employment assimilation of the foreign-born in the EU8. In fact, whereas there is a large body of (econometric) literature on the labor market performance of immigrants relative to natives for the EU (examples of which are mentioned above) there little is known on this subject in the Eastern States of the EU (an exception is Kahanec and Zaičeva (2008) who analyse the roles of foreign origin and citizenship in the Eastern and Western EU member states). In addition to analysing a broader range of EU countries, a further contribution of the paper is that it analyses both genders. Moreover, the study differentiates between destination and origin countries simultaneously, by distinguishing between EU and non-EU foreign born individuals. Concerning the receiving country distinction, the paper builds on the distinction suggested by Sainsbury (2006) and Fassmann and Reeger (2008) and used in Rendall et al. (2008). That is, the analysis differentiates between the “old” Western European immigration countries (and within that group the five “exclusive” migrant regimes), Northern European countries, and the Southern member states – the “new” immigration countries with more open labour migration regimes – and the EU8, given the different immigration patterns and integration policies. Subsequently, the study allows for different employment convergence patterns across groups of receiving countries and immigrant groups.

Overall, the estimation results point to numerous differences across receiving EU regions, genders and immigrant groups. Whereas the estimation results for the Northern and Western EU countries (a) support the labour market assimilation hypothesis, (b) indicate that women (other than non-EU-born women in Northern Europe) and non-EU born individuals endure a larger employment gap than men and EU-born individuals respectively and (c) whereas convergence is (almost) complete for EU-born men, convergence is only partial for the subsample of non-EU-born men. In the Southern European countries, as opposed to the other EU15 countries, (a) in general, it is the EU-born who endure a larger employment gap and (b) some evidence is found supporting the family investment hypothesis in the case of non-EU-born females. Finally, contrary to the EU15, in the new EU member states, (a) there is no difference in employment gaps across the two immigrant groups for women, and (b) for men it is important to point out that there is no significant employment gap between native-born and non-EU-born as opposed to between the native-born and the EU-born.

The paper is organised as follows: Section 2 proceeds with a presentation of the data used in the empirical analysis, descriptive statistics for the samples used in estimation and a description of the composition (by origin) of the foreign-born in the EU countries. Sections 3 and 4 present the empirical strategy and the estimation results respectively and finally Section 5 concludes. Tables for the descriptive statistics and the estimation results are presented in Appendices 1 – 3.

2. Data

2.1. EU LFS

The data for the analysis is drawn from the 2005 cross-section (pooling observations across the four 2005 quarters) of the EU Labour Force Survey (EU LFS). One of the advantages of the EU LFS lies in the high degree of comparability among EU member states given the common coding of the individual replies and the definitions and classifications of the variables used (see EU LFS – User Guide (2006) for detail). Moreover, the dataset is well suited for the analysis as it contains information on both the country of birth of the individual and the number of years of residence in the member state.⁹ Unfortunately, Germany, Italy and Ireland need to be omitted from the analysis as the country of birth is not reported for these countries. A further disadvantage is that the variable identifying the country of birth is aggregated and reported in three categories, namely, “Born in this Member State”, “Born in other EU country” and “Born in non EU country”, whereby EU-born refers to the EU25.¹⁰

In order to examine the distribution of immigrants by country of birth in more detail, the 2005 spring EU LFS ad-hoc-module is used.¹¹ We pool males and females and study individuals aged 15 and older which in turn assures enough observations to comply with the EU LFS quarterly reliability limits outlined by Eurostat. Table 6 of Appendix 2 reports the distribution of immigrants according to 12 (generated) categories of country of origin. The first set of descriptive statistics to be kept in mind is that contrary to the EU8 in the EU15 the majority of EU-born immigrants were born in the EU15 (87, 89 and 85 percent for EU15 North, South and West respectively). This in turn alleviates the problem of grouping together all EU-born immigrants in the econometric analysis. Second, in line with the different immigration patterns described in Section 1 and with the existing statistics (for example, Rendall et al. (2008) and Employment in Europe (2008)), the composition of non-EU-born men and women is as follows: the majority of non-EU-born men and women in Northern Europe were born in Asia, in Southern Europe in Latin America, in CEE and in Africa, in Western Europe in Africa and in Asia and in the and Eastern European countries in CEE. Note that cross-country differences due to the composition of ex-colonial immigration, geographical proximity and immigration history (outlined in Section 1) exist, such as in Belgium the proportion of males and females born in another EU15 country is higher than in other EU countries, in Austria and Greece the majority of the non-EU-born individuals were born in the CEE as opposed to the UK where the corresponding group was born in Asia, and in Spain nearly half of the immigrants were born in Central America, the Caribbean or South

⁹ The EU LFS only covers migrants who have stayed or intend to stay at least one year in the host country.

¹⁰ The EU25 refers to the 25 member states of the EU between 2004 and 2006.

¹¹ Note that data is not available for Luxemburg, hence the EU15 West countries include Austria, Belgium, France, the Netherlands, the UK only. Furthermore, for Austria and France first quarter data (rather than second quarter data) is available.

America, which represents 64 percent of the non-EU-born subsample. Finally, third country migrants make up a larger share of the immigrant population than EU-born migrants in all of the EU member states.

2.2. Descriptive Statistics

The descriptive statistics of the samples used in estimation are reported in Tables 2 – 5 of Appendix 1 for the EU15 North, EU15 South, EU15 West and the EU8 respectively.

Before commenting on the immigrant populations in the EU countries, two points in terms of the native populations are worth mentioning. First of all, whereas in Western and Northern Europe the distribution across education levels is similar, two notable differences in Southern and Eastern Europe merit comment – which are in line with 2005 OECD indicators (Education at a Glance 2007 (2007)). Whereas the EU15 Northern, Western and Eastern countries are similar in terms of the proportion of males and females with a low education level (in the range of 11 – 19 percent for males and 11 – 21 percent for females respectively), in the Southern European countries the corresponding proportion is substantially larger: nearly half of the selected sample has a low education level. In the Eastern European member states the fraction of males and females with a medium qualification level – corresponding to secondary education – is larger than in the other EU countries, and amounts to around 73 and 67 percent for males and females respectively, and accordingly the proportion of tertiary graduates is smaller. Second, in line with employment indicators published by Eurostat (Employment in Europe 2007 (2007)), the employment rate of the Eastern European men is lower than in the EU15.

The sample statistics indicate significant differences in employment rates not only between native-born men and women but also between EU-born and non-EU-born immigrant groups. In the Northern and Western EU member states, the average employment level is highest for native-born men and women and lowest for non-EU-born men and women. In the Southern and Eastern European member states, however, the average employment rate of native-born males and females is lower than that of the non-EU-born and is similar to the EU-born. This in turn motivates the disaggregation of the group of immigrants in EU-born and non-EU-born categories. Notable differences in the years of residence of the two immigrant groups also exist. Before coming to these differences, the differences across the four groups of EU-countries in terms of immigrant composition must be noted: the figures reaffirm that in the “new” migration countries of Southern Europe, the proportion of immigrants who arrived within the past five years is significantly higher than in Western and Northern Europe and the opposite applies to immigrants who have lived in the country for over 10 years. Contrary to the Eastern European member states, in the Northern and Southern EU countries the group of non-EU-born immigrants is composed of more recent immigrants than the EU-born group. In the Western EU

member states the composition by years of residence is similar across the two immigration groups. The differences in employment rates and years of residence across the immigrant groups in turn support the disaggregation of the group of immigrants in the econometric analysis.

3. Estimation Strategy

To examine the employment convergence of native-born and foreign-born men and women the paper uses a probit model. The probability of being in employment as opposed to not being in employment is estimated using the following specification:

$$Emp_i = \alpha + \beta_1 RES_i + X_i' \beta_2 + \beta_3 C_i + \varepsilon_i, \quad i = 1, \dots, n \quad (1)$$

where Emp_i is a dichotomous dependent variable indicating whether individual i is employed or not, RES_i indicates the years of residence in the EU member state (a set of dummy variables indicating whether the individual is native-born as a reference or (aggregated) years of residence categories), X_i represents a vector of demographic characteristics affecting labour market performance including age (age categories), marital status (a dummy variable equal to 1 for those who are married and 0 otherwise), educational attainment (a set of dummy variables indicating the individuals highest level of completed education, coded as low, middle or high, based on the ISCED classification) and the presence of children under the age of five (a dummy variable equal to 1 for those who have a child aged 0 – 4 and 0 otherwise¹²), C_i represents the receiving country and ε_i is a random disturbance term (see Appendix 1 for the description of variables used in estimation). The parameter of interest is the variable capturing the years of residence in the EU member state, β_1 .

Equation (1) is first estimated for the native-foreign pooled sample then for the subsamples of natives and for two groups of immigrants distinguished by the country of birth (i.e. born in another EU country and born in a third country) separately in order to analyse the employment convergence of different groups of immigrants. Equation (1) is estimated for men and women separately, for the Northern, Southern and Western EU15 member states and the EU8 separately. Subsequently, six specifications are estimated for each of the four destination country groups. The analysis is restricted to working age individuals, aged 25 – 54 years, excluding those in compulsory military service.

¹² Unfortunately, the variable used for the generation of the presence of children is not available for Northern EU Member States, namely, Denmark, Finland and Sweden, hence the estimated specifications for these countries do not include the dummy variable indicating presence of children aged under 5 years.

4. Estimation Results

Tables 7 – 10 in Appendix 3 report the marginal effects of the probit employment probability models for the EU15 North, EU15 South, EU15 West and EU8 respectively, and accordingly this section consists of four sections. Only the results for the main parameter of interest, the years of residence in the EU member state, are presented. Columns 2 – 5 in the respective tables present the estimation results for the sample of native men and all immigrant men (Specification 1), for the subsample of native men and men born in another EU country (Specification 2) and for the subsample of native men and men born in a non-EU country (Specification 3) respectively. The final three columns of Tables 7 – 10 report the corresponding estimation results for females (Specifications 4 – 6).

4.1. EU15 – North

Table 7 in Appendix 3 presents the estimation results for the Northern EU countries. Consistent with the immigrant assimilation hypothesis, the probability to be employed is lower for immigrants than for similar native-born and narrows as the years of residence in the host countries lengthen: the employment gap between male natives and their immigrant counterparts narrows from 27 percentage points after the first five years in the host country to 12 percentage points for those who have been in the country for over 10 years. Although, the immigrant assimilation hypothesis holds for both EU-born and non-EU-born men, substantial differences between the two groups can be observed. First of all, the magnitude of the employment gap between native-born and otherwise-comparable non-EU-born males is larger than that between native-born and EU-born males: after the first five years of residence the gap amounts to 33 percentage points and to eight percentage points for the former and latter groups respectively. Whereas after 10 years the employment rate of EU-born immigrants is only slightly below (by three percentage points) that of similar natives, indicating almost complete convergence, the employment rate of non-EU-born males is still 17 percentage points lower than that of similar natives. The results for females are similar to that of their male counterparts – with faster convergence of non-EU-born females than non-EU-born males.

4.2. EU15 – South

Table 8 in Appendix 3 presents the estimation results for the Southern EU member states. The magnitude of the employment gap between native-born and EU-born male and female immigrants and the pattern of convergence is similar in Southern and Northern Europe i.e. for the male subsample the

employment probability gap amounts to 14 percentage points after the first five years of residence and reduces to four percentage points after 10 years, for females the corresponding figures are 16 and six percentage points. However, contrary to the Northern EU member states, men born outside the EU and residing in the Southern EU member states are not significantly less likely to be employed than their native counterparts up to the first 10 years of residence, and after 10 years the magnitude of the employment gap in favour of similar natives amounts to four percentage points – the same in magnitude as for men born in the EU. A further substantial difference to the Northern EU member states concerns the employment probability gap between natives and females born outside the EU: in the Southern EU member states non-EU-born women are significantly more likely to be employed than similar natives up to 10 years of residence in the host country and after 10 years the employment probability gap is statistically not significant. Thus, the results indicate that the region of origin works in the opposite direction in Southern and Northern Europe.

The results for women born outside the EU provide some support for the “family investment model”, according to which initially immigrant wives are more ready to lower their reservation wages in order to finance their husband’s investment in local human capital and hence immigrant women’s employment levels are initially higher than that of the native-born. Rendall et al. (2008) find similar results for Southern Europe, i.e. the “family investment hypothesis remains a plausible explanation for the high initial labour force participation of migrant women in the Southern European countries”. Note however that (a) a decline in employment rate relative to the native-born as the duration of residence increases (as the strongest version which predicts) is not observed, and (b) for the first 10 years of residence men are not less likely to be employed than their native counterparts (which would be expected).

4.3. EU15 – West

Table 9 of Appendix 3 presents the assimilation rate of immigrants to natives as the number of years of residency lengthens, by country of birth. The first panel of the Table 9 presents the results for all of the six Western “old” immigration countries. The employment gap between male natives and their immigrant counterparts narrows from 17 percentage points after the first year in the host country to eight percentage points for those who have been in the country for over 10 years. The assimilation pattern by region of origin is similar to that in Northern Europe. That is, whereas males born in the EU start off with an employment gap of four percentage points and achieve almost complete convergence, the employment gap between natives and similar non-EU-born males is (a) larger in magnitude than that between the native-born and those born outside the EU and (b) even after 10 years of residence in the host country amounts to 10 percentage points. The same pattern holds for females, i.e. after 10 years the employment probability gap between native-born females and females born in the EU

amounts to merely two percentage points, and the corresponding figure for those females born outside the EU amounts to 14 percentage points.

Given that five of the “old” migration countries, namely, Austria, Belgium, Luxemburg, France and the Netherlands, are considered as “migrant exclusive” (Rendall et al. (2008)), the regression is run for these five countries and the UK separately, and the corresponding estimation results are presented in the second and third panels in Table 9 respectively. The most notable difference between the UK and the five Western EU member states is that up to the first 10 years of residence the employment probability gap between the native-born and foreign-born, regardless of gender and region of birth, is larger in the latter group of countries than in the UK. This is most characteristic of men and women born outside the EU. However, after 10 years the native-foreign employment gap is similar in magnitude between the UK and the five “migrant exclusive” Western countries for all subsamples analysed. It is also worth noting that the general pattern of worse relative position of non-EU-born men and women (compared to their EU-born counterparts) is characteristic for both the UK and for the other five countries. These results are consistent with Rendall et al. (2008), who find that that the UK falls in between the Southern European, “migrant inclusive”, countries and the “old” Western European, “migrant exclusive” regimes in terms of female native-migrant labour force participation gap.

4.4. EU8

Table 10 of Appendix 3 presents the estimation results for the Eastern European EU member states, admitted in 2004. Contrary to the analysis of the EU15, for the new member states, only two categories for the years of residence of the foreign-born have been generated (i.e. 1 – 10 years and more than 10 years of residence) due to data considerations (see Table 5). Starting with the male subsample, whereas the employment rate of men born outside the EU and living in the receiving country for over 10 years is not significantly lower than that of otherwise-comparable native-born, EU-born males living in the receiving country for over 10 years are significantly less likely to be employed than similar native-born. The employment gap for the latter group amounts to 10 percentage points, which is larger in magnitude than the corresponding figures in the EU15. A potential explanation for the finding that men born within the EU have a lower employment probability than similar natives as opposed to men born outside the EU is the difference reservation wages across the two groups. The estimation results for females are consistent with the immigrant assimilation hypothesis, and are (almost) identical for the subsample of EU-born and non-EU-born females: females born in the EU are 15 percentage points less likely to be employed than similar natives in the first 10 years of residence in the receiving country, and with additional years the gap declines to five percentage points, the corresponding figures for females born outside the EU are 16 and five

percentage points respectively.¹³ Although estimating a different specification (i.e. not controlling for years of residence but for citizenship) Kahanec and Zaiceva (2008) find similar results, namely that as opposed to females born outside the EU, males born outside the EU do not have a lower employment probability than comparable native-born. All in all, the estimation results for the EU8 suggest that, as opposed to the Northern and Western EU member states, the employment disadvantage of immigrant men is driven by those born within the EU.

5. Conclusion

The study examined the labour market performance of the foreign-born relative to the native-born as their residence lengthens in the receiving EU member state, by gender and country of birth. More specifically, the paper studied the employment convergence patterns of EU-born immigrants and third country immigrants in 23 EU countries. The increasing immigration coupled with the lower employment rate of certain immigrant groups in the EU (for detail see Münz (2007)) and the fact that labour market integration is often seen as the most important criterion for successful integration (Breidahl (2008) and *Eumployment in Europe 2008* (2008)) implies that studying immigrant employment assimilation patterns in the EU is of key importance.

The data for the analysis was drawn from the 2005 cross section of the European Union Labour Force Survey (EU LFS). Although the EU LFS has been used in existing (statistical and empirical) research on migration (for instance, Angrist and Kugler (2003), *Employment in Europe 2008* (2008), Fassmann and Münz (2004), Münz et al. (2006), Münz (2007), Lemaître (2007), Liebig (2007), Rendall et al. (2008), van Tuebergen et al. (2004)), to the best of my knowledge, it has not been used to analyse the employment convergence of migrants, by gender and country of birth in the EU. The EU LFS, despite its limitations, is well suited for the extensive European analysis because of the high degree of comparability among EU member states given the common coding of the individual replies and the definitions and classifications of the variables used and the presence of both years of residence in the host country and country of birth (although in groups) in the data. Thus, a significant contribution of the paper to the existing literature is the extension of the range of countries under analysis to cover both old and new EU member states. To the best of my knowledge, as of today, this is the first empirical study examining the employment assimilation of the foreign-born in the EU8. A further contribution stems from the study differentiation between destination and origin countries simultaneously thereby allowing for different employment convergence patterns across groups of receiving countries and immigrant groups, by gender.

¹³ Note that two alternative specifications were estimated, one for the Visegrád countries (the Czech Republic, Hungary, Poland and Slovakia) and one for the EU8 without Estonia and Latvia – the countries with a large ethnic Russian population – both yielding similar results.

The estimation results for the Northern EU member states are consistent with the immigrant labour market assimilation hypothesis, which predicts that with additional years in the receiving country the employment gap between natives and foreign-born decreases – as the foreign-born acquire the necessary country-specific human capital. However, substantial differences across genders and immigrant groups were found. For both males and females, the employment gap between natives and similar EU-born were smaller in magnitude than that between natives and otherwise-comparable individuals born outside the EU. Furthermore, whereas convergence was almost complete for the EU-born, the employment gap of non-EU-born males and females after 10 years of residence in the receiving countries amounted to 17 and 14 percentage points respectively. Finally, the native-migrant gap in employment was smaller in magnitude for males than for similar females (except for non-EU-born females after six years of residence). Although the reason for the large gap cannot be pinned down exactly in this analysis, the results indicate that migrant women, especially up to the first five years of residence, face even larger challenges integrating in the labour market than similar males (i.e. the double disadvantage problem (Employment in Europe 2008 (2008))). In addition to labour market barriers and the potential lack of networks and human capital, cultural background and thus the different view on family role might explain the gap in employment levels. The estimation results for the six “old” immigration countries of Western Europe are also consistent with the immigrant assimilation hypothesis, and the convergence patterns (by immigrant group and gender) are similar to those in the Northern Europe. However, one point concerning the results for Western Europe must be emphasized. Whereas the point estimates in the EU15 Northern and the five EU15 Western countries, considered as “migrant exclusive”, are similar in magnitude, in the UK up to the first 10 years of residence the employment probability gap between the native-born and foreign-born, regardless of gender and region of birth, is smaller in magnitude – especially for individuals born outside the EU. The picture is different in both Southern Europe and in Eastern Europe. Starting with the Southern countries, a remarkable difference to the rest of the EU15 member states is that region of origin works in the opposite direction. Moreover, evidence in support of the “family investment hypothesis” was found for females born outside the EU, according to which wives are willing to lower their reservation wages in order to finance their husbands’ investment in country-specific human capital and hence their employment levels are higher than that of similar natives. Before turning to the estimation results for the EU8, differences in welfare state regimes, immigrant status at entry, immigration policies between Southern Europe and Northern Europe, outlined by Employment in Europe (2008)¹⁴, which could (partially) explain the differences in the employment convergence patterns merits comment. The large employment gap between natives and third country immigrants in the Northern States reflects

¹⁴ In Chapter 2 of Employment in Europe (2008), the definition of immigrant is also based on the country of birth rather than nationality. However, the analysis pools native-born and EU-born and compares them to the group of non-EU-born and only looks at individuals residing in the member state for up to 7 years (i.e. recent immigrants).

numerous factors: (1) the relatively high shares of immigration that is unrelated to employment (i.e. humanitarian and family related flows), (2) tougher restrictions on access to employment, (3) more generous welfare state system, putting less pressure on migrants to work and (4) the high participation rate of immigrants in education / training activities (i.e. higher than that of EU-born in Northern Europe and higher than that of non-EU-born in Southern Europe). Furthermore, it must be pointed out that while Southern European countries seem to be more successful at getting third country immigrants into employment than their Northern counterparts, (1) the employment third migrants accept is more likely to involve work for which they are over-qualified and (2) they are more likely to be exposed to lower quality and precarious employment (Employment in Europe (2008)).

In the Eastern European countries, as opposed to the EU15, the magnitude and the pattern of employment convergence are identical for both immigrant female groups, suggesting that in the EU8 both immigrant groups face the same employment barriers as dependent wives. Contrary to the EU15, only males born within the EU have a lower probability to be employed than similar natives after 10 years of residence; men born outside the EU are not less likely to be employed than their native counterparts.

Comparison to the study by Rendall et al. (2008) analysing the labour force participation convergence pattern of females in nine EU countries is worth merit. The authors also find that the labour force assimilation hypothesis applies to the “old” immigration countries of Western Europe but not in Southern Europe, where evidence is found for the family investment model, and that the UK falls in between these two regions on migrant-native labour force participation rate gaps. The authors attribute the differences between Western and Southern Europe to immigration policy differences, especially immigrant-admission policy differences across the two regions. The estimation results for the EU8 are (generally) consistent with the results found by Kahanec and Zaiceva (2008) who focus their analysis on the role immigrant origin and citizenship in Eastern and Western Europe (i.e. not addressing years of residence) and find significant differences across the two regions.

Overall, the study of employment convergence patterns points to important differences across receiving regions of the EU15, which in turn supports the distinction of “migrant exclusive versus migrant inclusive regimes” for such analysis. The differences across immigrant groups in their assimilation patterns implies that, despite the political considerations, an analysis of third country immigrants should compare employment rates to that of native-born and not the aggregated group of native-born and other EU-born. Finally, despite the differences across EU15 regions, the estimation results indicate that region of origin plays a greater role in the old member states than in the new member states in terms of employment convergence.

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Appendix 1

Table 1. Definitions of the variables used in estimation

Employed	Contains the groups (based on the ILO definition): (1) Did any work for pay or profit during the reference week – one hour or more, (2) was not working but had a job or business from which he / she was absent during the reference week.
Years of residence	Reported in the dataset as a variable ranging from 0 – 11. The value is 0 for those born in the specific member state, 1 – 10 indicates the number of years the person has been in the member state and the value 11 refers to individuals who have been in the member state for more than 10 years. These 12 categories have been merged, due to data considerations and for comparability purposes to existing literature using the EU LFS (for example, Lemaître (2007), Rendall et al. (2008) and van Tuebergen et al. (2004)) into four categories for the EU15 (Born in the member state, 1 – 5 years, 6 – 10 years, more than 10 years) and three categories for the EU8 (Born in the member state, 1 – 10 years, more than 10 years).
Age	Reported in five-year intervals in the dataset and regrouped into three categories: 25 – 34 years-old, 35 – 49 years old and 50 – 54 years-old.
Marital status	A generated dummy variable equal to 1 for those who are married and 0 otherwise, whereby the latter group aggregates those who are widowed, divorced, separated or single.
Education	Coded in three categories (Low, Middle and High) in the dataset based on the ISCED classification.
Education: Low	ISCED1 or ISCED2 (at most lower secondary education)
Education: Middle	ISCED3 or ISCED4 (at most upper secondary education)
Education: High	ISCED5 or ISCED6 (tertiary education)
Child	Dummy variable equal to 1 for those who have a child aged under five and 0 otherwise. The variable is not generated for the EU15 North as for Denmark, Finland and Sweden the variables used for the generation of the child dummy are missing in the dataset.
Country	All estimated specifications include country dummies.
EU15 North	Denmark, Finland, Sweden
EU15 South	Greece, Portugal, Spain
EU15 West	Austria, Belgium, Estonia, France, Luxemburg, the Netherlands, the UK
EU8	Central European member states admitted in 2004 (the Czech Republic, Estonia, Hungary, Lithuania, Latvia, Poland, Slovenia and Slovakia)

Table 2. Descriptive statistics of sample used in estimation, EU15 North (percentages)

	Males			Females		
	Natives	Born in other EU	Born in non-EU	Natives	Born in other EU	Born in non-EU
Married	46.04	48.42	61.91	51.42	53.90	64.38
Education: Low	15.39	19.38	22.91	11.29	11.98	24.75
Education: Medium	56.14	47.46	45.99	49.02	50.14	42.20
Education: High	28.47	33.16	31.10	39.69	37.88	33.06
Employed	87.85	84.48	68.51	82.58	75.33	58.11
Years of residence: 1 - 5		17.34	17.64		14.32	22.59
Years of residence: 6 - 10		10.09	18.64		8.99	20.22
Years of residence: more than 10		72.57	63.72		76.69	57.18
Observations	82,367	2,342	4,871	84,114	2,781	5,546

Table 3. Descriptive statistics of sample used in estimation, EU15 South (percentages)

	Males			Females		
	Natives	Born in other EU	Born in non-EU	Natives	Born in other EU	Born in non-EU
Married	62.62	57.52	65.39	70.17	60.76	66.26
Education: Low	49.91	28.64	48.27	47.32	23.40	41.49
Education: Medium	23.81	29.70	32.51	24.00	34.11	34.89
Education: High	26.28	41.65	19.22	28.68	42.49	23.62
Employed	87.37	82.23	87.58	62.77	62.86	66.73
Presence of children aged 0 – 4	17.70	22.55	22.00	17.95	22.21	24.28
Years of residence: 1 – 5		29.24	44.72		26.62	49.68
Years of residence: 6 – 10		25.19	31.11		17.11	29.35
Years of residence: more than 10		45.58	24.16		56.27	20.97
Observations	211,591	1,692	11,689	220,446	2,335	12,408

Table 4. Descriptive statistics of sample used in estimation, EU15 West (percentages)

	Males			Females		
	Natives	Born in other EU	Born in non-EU	Natives	Born in other EU	Born in non-EU
Married	55.02	60.37	68.33	57.88	62.80	67.91
Education: Low	19.37	25.92	30.08	21.02	27.01	37.00
Education: Medium	51.79	46.78	42.95	48.76	43.71	37.68
Education: High	28.85	27.30	26.98	30.22	29.28	25.31
Employed	88.99	87.28	76.96	76.50	70.42	53.53
Presence of children aged 0 – 4	19.02	17.37	26.26	19.76	17.80	25.76
Years of residence: 1 – 5		20.51	19.75		17.70	20.39
Years of residence: 6 – 10		12.01	13.16		12.60	13.79
Years of residence: more than 10		67.48	67.08		69.70	65.82
Observations	309,676	15,452	28,055	326,170	18,615	32,346

Table 5. Descriptive statistics of sample used in estimation, EU8 (percentages)

	Males			Females		
	Natives	Born in other EU	Born in non-EU	Natives	Born in other EU	Born in non-EU
Married	69.30	66.03	75.04	72.51	70.29	70.78
Education: Low	11.30	12.86	10.52	12.62	19.49	12.81
Education: Medium	73.20	60.47	64.89	67.42	58.83	60.11
Education: High	15.50	26.67	24.59	19.95	19.49	27.08
Employed	79.89	78.35	85.10	67.50	66.70	70.95
Presence of child aged 0 – 4	15.47	18.12	14.17	15.42	14.59	10.70
Years of residence: 1 – 10		26.81	17.19		19.37	17.19
Years of residence: more than 10		73.19	82.81		80.63	82.81
Observations	211,506	1,174	3,859	220,405	1,273	4,330

Appendix 2

Table 6. Composition of immigrants by country of birth (2005 spring EU LFS ad-hoc-module)
(percentages)

	EU15 North	EU15 South	EU15 West	EU8
EU 15	37.69	15.96	26.78	8.72
European Economic Area (EEA) and other Europe	4.31	1.15	0.73	1.15
Central and Eastern Europe (CEE)	11.49	21.00	5.51	69.35
Africa	5.91	18.86	28.03	0.20
Northern America, Australia, Oceania and other territories	3.25	1.04	3.52	0.63
Central America and Caribbean and South America	4.61	36.72	5.78	0.14
Asia	23.62	2.95	20.56	2.30
EU 8	5.81	1.69	3.83	17.44
Turkey	3.22	0.28	4.53	0.08
Cyprus and Malta	0.08	0.35	0.73	-
Observations	5,148	7,845	19,863	3,310

Appendix 3

Table 7. Employment probabilities, EU15 – North

	Males			Females		
	(1)	(2)	(3)	(4)	(5)	(6)
1 - 5 years	-0.27 (0.02)***	-0.08 (0.02)***	-0.33 (0.02)***	-0.36 (0.02)***	-0.13 (0.02)***	-0.40 (0.02)***
6 - 10 years	-0.25 (0.02)***	-0.03 (0.02)	-0.29 (0.02)***	-0.23 (0.02)***	-0.11 (0.02)***	-0.25 (0.02)***
More than 10 years	-0.12 (0.01)***	-0.03 (0.01)***	-0.17 (0.01)***	-0.12 (0.01)***	-0.07 (0.01)***	-0.14 (0.01)***
Observations	89580	84709	87238	92441	86895	89660

Notes: The regressions include controls for educational attainment, age, marital status and country dummies. The reference group for the years of residence dummies is native (i.e. born in the country of residence). *Significant at the 10% level. **Significant at the 5% level. ***Significant at the 1% level. Robust standard errors are in parentheses. Marginal effects are reported. EU15 – North refers to Denmark, Finland and Sweden.

Table 8. Employment probabilities, EU15 – South

	Males			Females		
	(1)	(2)	(3)	(4)	(5)	(6)
1 - 5 years	-0.02 (0.01)**	-0.14 (0.03)***	-0.01 (0.01)	0.02 (0.01)**	-0.16 (0.03)***	0.04 (0.01)***
6 - 10 years	0.00 (0.01)	-0.03 (0.03)	0.00 (0.01)	0.06 (0.01)***	0.00 (0.04)	0.07 (0.01)***
More than 10 years	-0.04 (0.01)***	-0.04 (0.02)***	-0.04 (0.01)***	-0.01 (0.01)	-0.06 (0.02)***	0.01 (0.01)
Observations	224972	213283	223280	235189	222781	232854

Notes: The regressions include controls for educational attainment, age, marital status, presence of children under the age of five and country dummies. The reference group for the years of residence dummies is native (i.e. born in the country of residence). *Significant at the 10% level. **Significant at the 5% level. ***Significant at the 1% level. Marginal effects are reported. EU15 – South refers to Greece, Portugal and Spain.

Table 9. Employment probabilities, EU15 – West

	Males				Females	
EU15 – West	(1)	(2)	(3)	(4)	(5)	(6)
1 - 5 years	-0.17 (0.01)***	-0.04 (0.01)***	-0.22 (0.01)***	-0.26 (0.01)***	-0.12 (0.01)***	-0.31 (0.01)***
6 - 10 years	-0.13 (0.01)***	-0.02 (0.01)*	-0.17 (0.01)***	-0.23 (0.01)***	-0.13 (0.01)***	-0.26 (0.01)***
More than 10 years	-0.08 (0.00)***	-0.01 (0.00)**	-0.10 (0.00)***	-0.11 (0.00)***	-0.02 (0.01)***	-0.14 (0.00)***
Observations	353183	325128	337731	377131	344785	358516
EU15 – West, without the UK	(1)	(2)	(3)	(4)	(5)	(6)
1 - 5 years	-0.24 (0.01)***	-0.07 (0.02)***	-0.30 (0.01)***	-0.37 (0.01)***	-0.17 (0.02)***	-0.44 (0.01)***
6 - 10 years	-0.18 (0.01)***	-0.02 (0.01)	-0.23 (0.01)***	-0.27 (0.01)***	-0.15 (0.02)***	-0.31 (0.01)***
More than 10 years	-0.10 (0.00)***	-0.02 (0.01)***	-0.12 (0.00)***	-0.12 (0.00)***	-0.02 (0.01)***	-0.15 (0.01)***
	260065	239982	247174	273922	250657	258446
UK	(1)	(2)	(3)	(4)	(5)	(6)
1 - 5 years	-0.12 (0.01)***	-0.02 (0.01)	-0.16 (0.01)***	-0.16 (0.01)***	-0.07 (0.02)***	-0.19 (0.01)***
6 - 10 years	-0.08 (0.01)***	-0.03 (0.02)*	-0.09 (0.01)***	-0.17 (0.01)***	-0.09 (0.02)***	-0.20 (0.01)***
More than 10 years	-0.05 (0.01)***	-0.00 (0.01)	-0.07 (0.01)***	-0.11 (0.01)***	-0.02 (0.01)**	-0.14 (0.01)***
	93118	85146	90557	103209	94128	100070

Notes: The regressions include controls for educational attainment, age, marital status, presence of children under the age of five and country dummies. The reference group for the years of residence dummies is native (i.e. born in the country of residence). *Significant at the 10% level. **Significant at the 5% level. ***Significant at the 1% level. Robust standard errors are in parentheses. Marginal effects are reported. EU15 – West refers to Austria, Belgium, France, Luxemburg, the Netherlands and the United Kingdom.

Table 10. Employment probabilities, EU8

	Males			Females		
EU8	(1)	(2)	(3)	(4)	(5)	(6)
1 – 10 years	-0.03 (0.03)	-0.08 (0.06)	-0.01 (0.03)	-0.15 (0.02)***	-0.15 (0.05)***	-0.16 (0.03)***
More than 10 years	-0.02 (0.01)**	-0.10 (0.02)***	0.00 (0.01)	-0.05 (0.01)***	-0.05 (0.02)***	-0.05 (0.01)***
Observations	216539	212680	215365	226008	221678	224735

Notes: The regressions include controls for educational attainment, age, marital status, presence of children under the age of five and country dummies. The reference group for the years of residence dummies is native (i.e. born in the country of residence). *Significant at the 10% level. **Significant at the 5% level. ***Significant at the 1% level. Robust standard errors are in parentheses. Marginal effects are reported. EU8 refers to the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia.