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Market Forces at Work?
Free Movement of Labour Following the 2004 EU Enlargement

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Abstract

The freedom of movement was a much debated issue in the EU 2004 enlargement. The public in the old member states feared mass migration caused by economic disparities between old and new member states. This paper studies the inflows of migrants to the three Western European countries that applied free movement of labour to citizens of the accession countries. The neo-classical economic model of migration is used which assumes that wage differentials are able to account for direction and volume of inflows of migrants. Results show that while economic considerations are a crucial factor, the framework needs to be extended to include other factors such as the existence of migrant networks.

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List of abbreviations

CEEC-8	Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia
NMS-8	Identical to CEEC-8
EU-3	Ireland, Sweden and the United Kingdom
EU-15	Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Ireland, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom
CZ	Czech Republic
EE	Estonia
HU	Hungary
IE	Ireland
LV	Latvia
LT	Lithuania
PL	Poland
SK	Slovakia
SE	Sweden
SI	Slovenia
UK	United Kingdom

Prologue

After the fall of the Iron Curtain, it was clear that the European Union would eventually enlarge to include Eastern Europe. In 2004, eight Central and Eastern European countries (CEEC-8) joined the EU. These states were the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia. The enlargement was unprecedented in terms of land mass, number of countries as well economic disparities between old and new member states. These disparities led to extensive public debate in the EU-15 member states.

Besides questions about the governance of the EU and the distribution of structural funds, particularly the freedom of movement was a concern in the old member states. Under community legislation, any EU citizen may reside and work in any member state. This freedom was first stated in the Treaty of Paris in 1951 for the European Coal and Steel Community and in 1957 extended to all members of the European Community. Hence, CEEC-8 migrants would have been able to freely migrate to all of the EU-15 states.

The public debate centred on concerns about "welfare tourism" of the new member state citizens and negative impacts on wages as a result of the enlargement. These concerns became so influential that in the end most countries revoked their initial announcements of open borders for the CEEC-8 citizens. Instead, transition periods were applied before the freedom of movement was granted. Only Ireland, Sweden and the United Kingdom decided to allow free access to their labour markets. These countries provide us with the opportunity to study migration under freedom of movement.

Under free movement, mass migration was expected in the EU-15. The primary reason for this was the disparity in wages between East and West. The prospect of higher wages was expected to provide a significant incentive for migration. Hence, wage differentials can be expected to induce migration, and changes in them to influence the number of migrants. The three countries with free access policies provide a good instance to study this phenomenon. This study assesses the relationship between wage differentials and inflows of migrants as well as the development of these variables over time. The variables are then analyzed for each of the three migration receiving countries to assess whether wage differentials indeed have influenced inflows of migrants.

1. Introduction

1.1. The controversy of free movement

Freedom of movement has been one of the core principles of European cooperation since its earliest days. The basic reason behind the gradual extension of the freedom of movement lies in economic rationale. The European Single Market has existed since 1992 and has also become a single currency area. From an economic standpoint, this bears the increased risk of negative consequences of asymmetric shocks on the market. This is due to the fact that monetary policy is no longer available to counteract such shocks. Rather, possible economic turmoil has to be countered by shifting the factors of production (Mundell, 1961). This is why both labour migration and the free movement of capital are core principles to the optimal functioning of the intra-European market.

Further reasons also underlie the economic claim for the free movement of labour. A mobile workforce is seen as assuring that labour supply and demand match and hence productivity is enhanced. Also, innovation is expected to spread faster, as individuals are more mobile and disseminate their knowledge. Hence, from an economic standpoint the free movement of workers functions as both productivity enhancer and innovation trigger (Recchi, 2008). Certainly, the free movement is also propelled by the European institutions, as studies have shown that internationally mobile Europeans have a significantly more supportive attitude towards the EU. Hence, free movement grants legitimacy to the institutions which helps to explain why the European level has been active in promoting this right.

From an economic standpoint, it is clear that the 2004 EU enlargement has the potential of great welfare gains. While in the EU-15 member states there is relative abundance of capital, the new CEEC-8 add a large pool of labour to the Union. Hence, through shifting these factors of production greater overall welfare can be achieved. Over time, labour should migrate from lower to higher wages regions and wages should converge until equilibrium is achieved. Then, migration should cease as there no longer is an incentive to migrate. If EU member states had overall economic gain as their priority, they should hence embrace the free migration of labour and the convergence of wages associated with it.

However, reality in the EU-15 was different. The Eastern Enlargement was preceded by heated public debate. Issues were its effect on EU governance and the distribution of structural funds, but most of the debate was dominated by the anticipated mass inflow of migrants and the associated economic and social impact (Krieger, 2004). The public feared that wages would decrease as a result of employing cheaper Eastern European labour. Also, “welfare tourism” was anticipated, implying the movement of people to the EU-15 to reap the benefits of the social support systems (Doyle et al., 2006).

1.2. Restricting the freedom of movement

The public debate prior to 2004 enlargement lead member states to deviate from the principle of the free movement of labour. At the Nice European Summit in February 2001, it was agreed that states might introduce transition periods before this freedom became effective. This was done using the "2 plus 3 plus 2" rule. Each state could introduce a two year transition period which could be extended by three years after Council review. Another two years were possible in case of "serious disturbances in the labour market". If a state chose not to apply a transition period, it was still allowed to re-impose one under the safeguard clause (European Commission, 2008).

Finally, only three countries extended free movement to the CEEC-8 citizens. These were Ireland, Sweden and the United Kingdom. In all other countries, transition periods were introduced. For seven countries, the freedom of movement for CEEC-8 citizens remained equally restrictive as before EU accession. Six countries chose to introduce quotas defining a maximum number of CEEC-8 migrants under free movement. From 2006 to 2009, states have gradually lifted restrictions with only Germany and Austria announcing to maintain them until 30 April 2011.

Table 1: Transition periods on the free movement of labour following EU 2004 Enlargement

Member State	Access of CEEC-8 nationals to the labour market on 1 May 2004	Current policy on the labour market access of CEEC-8 nationals
Sweden	Free access	
Ireland		
United Kingdom		
Austria	Quota system	Restrictions until 30 April 2011
Denmark		Free Access (1 May 2009)
Italy		Free Access (27 July 2006)
Netherlands		Free Access (1 May 2007)
Portugal		Free Access (1 May 2006)
Belgium	Access restricted	Free Access (1 May 2009)
Finland		Free Access (1 May 2006)
France		Free Access (1 July 2008)
Germany		Restrictions until 30 April 2011
Greece		Free Access (1 May 2006)
Luxembourg		Free Access (1 November 2007)
Spain		Free Access (1 May 2006)

Source: European Commission (2009)

As a reaction, three CEEC-8 states (Hungary, Poland and Slovenia) introduced reciprocal restrictions for citizens of all countries that restricted access of their nationals to the labour market. The Nice Treaty allowed for this possibility because of political considerations (European Commission 2008a; Lang, 2009).

Clearly, these measures were contradictory to the economic rationale for enlargement and it was clear that their adoption would hinder the market convergence through movement of labour. Hence, convergence of wages and the associated inflows of migrants can only be expected for those states that granted accession country citizens free access to their labour market. For the other countries, policies will likely have had significant influence on these convergence processes.

This study analyzes the migration flows that occurred after the accession in 2004. In doing so, it assesses the role of wage differentials as an incentive for migration from the CEEC-8. Migration inflows from all of the eight accession countries to the three migration receiving countries are related to the difference in wages between sending and receiving country and its development over time. Hence, the study can provide knowledge about the reasons why migration after the enlargement occurred.

1.3. Studies of migration flows

A number of studies were conducted prior to 2004 enlargement in order to forecast the likely migration flows. Three different approaches can be distinguished. These were representative surveys (Krieger, 2004; Fassmann and Hintermann, 1997), forecasts based on previous enlargements (Bauer and Zimmermann, 1999; Layard et al., 1992) and econometric estimates which were the dominant approach in the field (Fertig, 2001; Brücker and Boeri, 2000; Dustmann et al., 2003).

Methodologically, all these modes of study have specific weaknesses. The survey method overstates the number of migrants because intention to migrate is measured rather than actual migration. Extrapolations assume that the same factors that induced migration from Spain and Portugal will be relevant for the CEEC-8 countries. Econometric estimates yield widely differing results based on the exact model used. Using these different methodologies the studies arrive at a migration potential of 1 to 4.5% of the CEEC-8 population in the long run, equalling about 0.7 to 3.5 million migrants in the 15 years following enlargement.

A principal shortcoming of these studies is that they do not take transition periods into account but rather assume that free movement of labour will be applied to the CEEC-8 states upon accession. These transition periods could not be anticipated, as many member states announced at very short notice that they would revoke their promise to open labour markets. For instance Denmark announced the decision to do so in December 2003 and the Netherlands followed in January 2004. Beyond doubt however, the different policies have had significant impact on the inflows of migrants to different countries. Hence, clearly there is further need to include these different policies into the research, which is what this study does.

Following enlargement, there have been studies on different aspects of it. Studies have assessed the size of the CEEC-8 migrant population and the determinants of the direction of migration flows (Barrell et al., 2010; Zaiceva and Zimmermann, 2008). The topics that shaped public debate have been assessed (Baas

et al., 2009) as well as migrants' micro-level characteristics (Zaiceva and Zimmermann, 2008). From an economics viewpoint, D'Auria et al. (2008) analyzes effects on GDP in sending and receiving countries. Many more highly specific studies have been conducted concerning particular aspects associated with enlargement (Favell, 2008; Garapich, 2008; Pedersen and Pytlikova, 2008; Ahearne et al., 2009).

All these studies cover a specific aspect of the enlargement. Although some take an economics perspective, there is a lack of knowledge about which role economic considerations have played in shaping migration flows across countries. As the topic remains far from being settled, this study takes a geographically broad view including all of the CEEC-8 and uses data on inflows of migrants that has only recently become available. Also including the transition periods enacted after the accession, it can provide new insights into this field of study.

The movement of labour is crucial to the optimal functioning of the single market and hence to maximizing the economic benefits associated with it. Clearly, there remains a need for supplemental research studying whether these movements have occurred and whether wages indeed have converged as economic theory would predict. Taking into account the different labour market access policies, this study can yield new insights into the functioning of the adjustments processes of labour migration and wage convergence.

This thesis sets out to analyze the inflows of migrants from the CEEC-8 countries to three of the EU-15 migration receiving countries. This is done by using data on wage differentials between the migration sending and receiving countries and relating this data to the observed inflows of CEEC-8 migrants. This study assesses whether this macro-level indicator can be used to explain direction and volume of the inflows of migrants to the three receiving countries. Hence, it can add to the knowledge already obtained through the more specialized studies which are currently available on the subject.

2. Theory

2.1. Theories of migration

In comparison with other fields of study, theories of migration are relatively fragmented. Different strands of social science have during the last approximately 120 years created theories from their realm, which however have typically lacked a general overall explanation of migration patterns (Brettell and Hollifield, 2008). Especially the disciplines of economics, sociology and geography have made contributions to the field.

There is a strong divide between researchers that focus on macro-level indicators and others that study migration at the individual level. There have been multiple calls by researchers to create a framework for the study of migration that combines the different approaches. However, currently there does not seem to be convergence towards one theory. What can be stated however is that economic theories of migration have been particularly influential in shaping the public policy debate (Massey et al., 1993; Castles, 2004).

Also, migration as a subject of study is a relatively new phenomenon. Only through improvements in factors facilitating mobility and the increasing pressure on higher developed countries to restrict access to them has the topic become more prominent. The first relevant framework for the study of migration is Ravenstein's work on the laws of migration (1885) upon which following theories of migration have built. What is especially notable about the theory is that Ravenstein identifies economic considerations as the most important reason for migration, a view that is later reinforced by other migration theories.

After Ravenstein, the following development that received much attention was Lee's (1966) introduction of the push-pull framework for the study of migration. Lee's theory is relatively simple but nevertheless provides a very useful framework for the study of migration. The basic framework of the theory describes two places named origin and destination. These denote the sending and receiving countries of migration. Both of these places are shaped by specific characteristics. While negative (push) factors are dominant in the origin sector, positive (pull) factors are dominant in the destination sector. The imbalance between these two poles will cause people to move from origin to destination. Both Ravenstein and Lee can be categorized as belonging to a primarily economic approach of explaining migration.

Other approaches from the economic discipline have also received much attention. The most prominent is the neo-classical economic model of migration, which identifies wage differentials as the driving factor behind migration movements. The basic model was first proposed by Lewis (1954). Attempts have been made to extend this theory by replacing wage differentials by expected wage differentials (Todaro, 1969; Harris and Todaro, 1970). However, expected wage differentials are difficult to measure. Researchers using this approach have tried to calculate the expected wage differential by taking the average wage and subtracting a certain sum from it based on the unemployment rate. However, it remains doubtful whether this provides a valid estimate of data on which migrants base their decision.

The new economics of migration school has tried to describe migration as a household decision instead of focusing on individual choice. Migration is seen as a way not to increase, but rather to diversify family income. This makes the income more reliable. The need to do so is caused by imperfections in the sending countries' markets for futures on farm products, credits and insurance markets. However, this theory of migration seems to be mainly suitable in the context of Mexico-US migration and the generalizability of the underlying reasons has been doubted (Arango, 2000).

A fourth theory from the economics perspective is the dual labour market theory proposed by Piore (1979). It claims that besides the official labour market for natives there is a second labour market that attracts and absorbs migrants. It is comprised of jobs that natives are unwilling to take because of their low prestige and for which wages cannot be increased due to structural reasons. This dual labour market is present in all developed economies, and migrants are willing to take up the jobs because they do not associate low social prestige with them.

However, the dual labour market completely leaves out the 'push'-side by asserting that migration is purely demand-driven. Therefore, it can only be applied to migration movements that are related to particular recruitment practices, as in the case of the 'gastarbeiter'. These were attracted to Germany

because of the high demand of low-skilled labour in the 1960s. Besides such special demand-driven programs, dual labour market theory fails to explain migration.

The realm of sociology has contributed the world systems theory and network theory to the migration debate. World systems theory builds on the world system under European hegemony that was described by Wallerstein (1974). In this system, the centre (the developed countries) draw labour from the periphery (the less developed countries) which causes the displacement of workers. However, this theory rather retells history in the light of historical materialism. Migrants are seen as unable to influence their fate and fall victim to the capitalists' interests. It is doubtful whether this total inability to exert any control truly reflects reality. Network theory on the other hand states that migrants will move to destinations where they already have acquaintances as these are a way of reducing uncertainty and hence costs associated with migration. However, this theory has not gone beyond the stage of a mere framework (Arango, 2000).

Two other theories are also frequently discussed in the debate on migration. Firstly, the systems approach has tried to explain migration based on interdependencies between different nations. These interdependencies are caused by linkages such as flows of people, goods and ideas. Imbalances between countries cause these flows because there is a constant movement towards the equilibrium on factors (Fawcett, 1989). This approach has especially been applied the effects of colonial ties on migration.

Cumulative causation has described migration as a constant and ever reinforcing process first proposed by Myrdal in 1957 (Massey, 1990). The theory states that initial migration leads to changes in social and economic structures in the receiving country. Primarily important in this respect is the creation of migrant networks which reduce the costs of migration for future migrants. As a result, initial migration induces more migration in a later time period. However, both theories of systems approach and cumulative causation remain limited in their applicability to explain migration patterns. They can only explain the perpetuation of migration across time. Furthermore, these theories cannot easily be tested as the variables used in the theories remain very difficult to measure.

This study intends to assess the relationship between wage differentials and the inflow of migrants. For these factors, analysis of macro-level data of the labour market will be used. Clearly, the theories from the economic realm are most suitable for the purpose of this study. The new economic of migration theory is not applicable in this case, as it was specifically created for migration from developing countries. The theory assumes that the decision to migrate is made because the agrarian market does not provide a reliable source of income. Clearly, most CEEC-8 migrants do not have an agrarian background but are highly educated. Also, the decision to migrate is typically an individual decision for these migrants and not one dependent on the wider family.

The dual labour market theory on the other hand is not suitable as it is typically applied to migrants under government recruitment programs such as the German "gastarbeiter" scheme in the 1960 and 1970s. The theory posits that migration is driven by recruitment practices and completely leaves out 'push' factors in the migration sending countries.

Finally, with Todaro's model it remains doubtful whether including the national unemployment rate into the equation actually adds to the credibility of the results. Migrants may have different qualifications to offer than nationals. Many migrants perform well on the labour market either because of their specialized knowledge or in some sectors because they promise less costs. Especially the first argument is true for a large proportion of the CEEC-8 migrants. Hence, their chances on the job market can simply not be assessed by including unemployment rate as they are likely to have different qualifications to offer compared to the proportion of the national population which is unemployed. The CEEC-8 migrants are likely to be better qualified (Grabowska, 2003).

This study uses the neo-classical economic model of migration. Based on an assessment of the data on wage differentials and inflows of migrants, this framework is used to explain the relationship between variables in the data. By using this model, it can be assessed whether there is a relationship between these measures for migration from the CEEC-8 to the EU-3. Hence, by using this model the study can add to the knowledge of effects of macro-economic factors on migration after 2004 Eastern Enlargement.

2.2. Neo-classical economic model of migration

The idea that migration is induced by wage differentials was first applied in the context of economic development. The most basic model of this theory of migration was created by Lewis (1954) who states that some regions have an abundance of labour while others are abundant in capital. Migrants move to higher wage regions in the absence of restricting policies. If such policies are present but free movement of capital is allowed, capital moves to the region with an abundance of labour. In his study, Lewis introduced the idea of an equilibrium between capital and labour to the study of migration.

Hence, the basic version of the neo-classical model of migration has as its fundamental assumption that people move because of wage differentials. Let us assume that there are two countries. In one, there is relative labour scarcity while in the other there is abundance of labour. As a consequence of this, wages are relative high in the first country while being low in the second one. The neo-classical economic model of migration predicts that people will move from the country with low wages to the one where wages are higher. Other authors have used this basic theory and applied it to different circumstances. For instance Ranis and Fei (1961) specifically look at economic transition in developing countries and the transfer of workers from the agricultural to the industrial sector associated with it.

The greatest criticism that the neo-classical economic model faces is that it does not take political factors into account. This is due to the fact that it was primarily applied to explain migration movements within countries and not internationally (Ranis and Fei, 1954; Harris and Todaro, 1970). With intra-country migration, policies on migration do not play a role because in most cases movements within countries are free from legal restrictions. However, between nation states policies in many cases still play an important role in shaping migration movements.

For instance Arango (2000) argues that as regulation on migration is getting stricter and stricter, policies become the real determinants of migration flows. Hence, any theory that does not evaluate the political side of migration policy is hardly useful. However, in the case of the European Union this criticism clearly does not apply. As freedom of movement is one of the core principles of the EU, the policy side does not

play the powerful role that critics of the theory point out. All countries that are selected as cases have not adopted any transition periods before the free movement of labour is completely enacted, and hence there are no legislative restrictions on the movement of people. Furthermore, a limitation of this model of migration is that is it primarily suitable for explaining labour migration. However, as labour migration is the relevant type of migration being studied (as contrasted to asylum seekers as one example) this limitation does not pose any hindrances for this study.

As stated above, the neo-classical economic theory of migration assumes that people move from lower to higher wage regions. Hence, the wage differential will cause the inflow of migrants to the higher wage country. When the wage differential changes, this is expected to have an effect on the inflows of migrants, as there is a positive relationship between wage differential and the inflow of migrants. This causal relationship makes it possible to draw conclusions about the volume and direction of migration based on wage level data. Wage differentials are expected to decrease over time followed by a decrease in migration inflows as the primary incentive for migration becomes less attractive.

2.3. Research Question

Based on the theoretical model described above, one general research question and three specific sub questions will be answered. The general research questions is phrased as

RQ: To what extent did wage differentials shape the inflow of migrants from the CEEC-8 accession countries to the three EU-15 countries that did not adopt transition periods on the free movement of labour following the 2004 EU enlargement?

The following three specific questions will be answered in order to answer the general research question.

SQ1: How have wage differentials between the CEEC-8 countries and the migration receiving countries developed since EU accession in 2004?

SQ2: How has the inflow of migrants from the CEEC-8 countries to the migration receiving countries developed since EU accession in 2004?

SQ3: Can a relationship between the development of wage differentials and the inflow of migrants be observed?

2.4. Expectations

As stated above, wage differentials are expected to account for differences in the inflow of migrants between each of the CEEC-8 countries and each of three migration receiving countries studied. These countries are Ireland, Sweden and the United Kingdom. The relevant time period is the time following EU enlargement in 2004, as free movement to these countries was then allowed for CEEC-8 nationals. It is expected that a greater wage differential between countries will lead to higher observed inflow of migrants as compared to a lower expected wage differential between countries. Furthermore, it is expected that wage differentials and inflows of migrants will decrease over time. Hence, the following two hypotheses will be examined.

Hypothesis 1: *The size of a wage differential is positively related to the inflow of migrants to the region with higher wages*

Hypothesis 2: *Wage differentials and inflow of migrants decrease over time*

3. Research Methodology

3.1. Case selection

The study examines the inflow of migrants from the eight Central and Eastern European accession countries of the 2004 EU enlargement and selected EU-15 states. The selection of EU-15 states was based on the migration policies that these countries adopted towards CEEC-8 migrants following their countries' accession. The three states selected are Ireland, Sweden and the United Kingdom. These are the only countries that did not adopt transition periods on the free movement of labour and to which free migration for CEEC-8 citizens was possible immediately following EU enlargement.

There are some minor differences between the policy adopted by Ireland and the United Kingdom as compared to Swedish policy. Sweden was the only country that fully applied community legislation to CEEC-8 migrants as well, meaning that they were treated with absolute equality as compared to EU-15 citizens. Ireland and the United Kingdom adopted slightly different rules that were effectively the same for both countries as they were strongly shaped by the countries cooperation in the common travel area between Ireland, the UK, the Channel Islands and the Isle of Man.

The additional conditions applied in Ireland and the United Kingdom were a result of the public fear of welfare migration to these countries (Doyle, 2006). They include two deviations from the community principle of free movement of workers. Firstly, in the UK migrants from CEEC-8 countries had to register before taking up employment. This was done in the United Kingdom under the Worker Registration Scheme (WRS). Under this scheme, all new member state nationals taking up employment in the country have to register with the Home Office. This scheme was introduced only for monitoring purposes and its declared aim was to make it possible to forecast any disturbances in the labour market. In that case, a work permit scheme could have been re-introduced.

Secondly, new legislation was drafted with regards to welfare benefits of new member states nationals. In the UK, NMS nationals had to work without interruption for a 12 month period before acquiring entitlement to benefits. Ireland enacted similar legislation by establishing the Habitual Residence Condition (HRC), which states that migrants have to live for at least two years in the common travel area in order to be entitled to social security benefits. Shorter time periods may also be considered sufficient depending on factors such as the migrant's employment record and future intentions of living in Ireland.

Besides these two minor deviations, these countries adopted equal migration policies towards CEEC-8 citizens following enlargement. Hence, they make it possible to study the working of the labour market in the absence of limiting policies. All CEEC-8 citizens had the freedom to move to these countries immediately upon accession. All countries shared a significant wage differential with the CEEC-8 countries at the time of enlargement. Hence, these states provides us with the opportunity to study to what extent indeed wage differentials attracted workers under free movement and whether wage differentials and inflows of migrants indeed decrease over time as the CEEC-8 countries have been members of the European Union for a longer time.

3.2. Operationalization of variables

In order to conduct the research two variables need to be operationalized. The independent variable is defined as wage differential and the dependent variable is defined as the inflow of migrants. The independent variable is expected to influence the dependent variable. Hence, a change in wage differential is expected to lead to a change in the inflow of migrants. A positive relationship is expected, implying that a greater wage differential is expected to cause a greater inflow of migrants.

The inflow of migrants needs to be measured in each of the three migration-receiving countries Ireland, Sweden and Great Britain. For each of these countries, eight measures are needed for each year between 2004 and 2008. The reason is that the inflow of migrants from each of the eight CEEC migration sending countries is measured separately. Over a period of five years, the study uses 120 measurements of the variable inflow of migrants.

Currently, there still is a lack of a common database on inflows of migrants in Europe. Data using common definitions and study design across countries is deficient. National data from the three migration receiving countries provides the information needed to operationalize the variable inflow of migrants for the purpose of this study. For all three migration receiving countries, data on the inflow of migrants is complete for the entire time period from 2004 to 2008 and for inflows from all of the CEEC-8 countries.

For Sweden, the national statistical bureau Statistics Sweden maintains a database on the inflows of migrants by nationality. The data includes all CEEC-8 nationals that have registered with the Swedish Migration Board. Registration is mandatory for any EU citizen living in the country for more than three months and does not involve any costs.

For Ireland, no such database exists. However, the register of Personal Public Service Numbers (PPSN) can provide information about the inflows of migrants. A PPSN number is required for virtually all

transactions with authorities such as access to state benefits and public services as well as obtaining documents such as a driver's license. It is necessary for anyone looking to gain employment. The PPSN data includes country of citizenship and hence can be used to measure inflows of migrants. The United Kingdom set up the Worker Registration Scheme (WRS) specifically for the purpose of tracking inflows of migrants from the CEEC-8 countries. This data is used to measure the inflow of migrants to the country, as it includes all migrants that have registered, which is legally obligatory when taking up employment lasting more than one month.

Using national sources bears the risk that data may not be fully comparable. However, although some minor differences exist, these are unlikely to distort the results of this study. The most significant criticism that the use of PPSN and WRS data has received is that it is likely to overstate the number of migrants in the country because no incentive to deregister exists. However, as inflows of migrants are the factor assessed in this study, this does not pose a threat to validity as these are measured by the operationalization. Also, the Swedish data used in the data tracks the inflow of migrants and hence data from the three countries is comparable in this respect.

The data from the United Kingdom does not include the self-employed as they are not required to register under the WRS. Hence, the data is biased towards underestimating the actual inflow of CEEC-8 migrants to the United Kingdom. The number of inflows of migrants may also be distorted relative to Ireland and Sweden, as data for these countries includes the self-employed. The extent of a possible underestimation of inflows of migrants to the United Kingdom remains difficult to measure, as the self-employment of CEEC-8 migrants is not tracked.

Also, the fact that registration in the United Kingdom involves a cost of 90 British Pounds (raised from 50 Pounds in October 2005) may provide an incentive not to register and hence lead to underestimation of the number of migrants. However, it is likely that the improved earning possibilities under legal status outweigh the cost of registration. Thus, there is a significant incentive to register and hence the cost of registration is unlikely to influence the decision to register significantly. Although there is no cost for registration in Ireland and Sweden, the fee in the United Kingdom is hence unlikely to pose a hindrance for the comparability of the data. For all three countries, the data does not include information on migrants living illegally in the country. However, given the relative ease of registration and the benefits associated with it, the number of CEEC-8 citizens living in one of the countries illegally is likely to be very small.

It can be said that no major hindrances to the comparability of the national data sources exist. The only noteworthy possible limitation to comparability is the possible underestimation of inflows to the United Kingdom because self-employed migrants are not included. The extent of this possible distortion of the data remains difficult to measure due to a lack of available data.

There have been different approaches to operationalizing wage differentials. For instance Dustmann et al. (2003) compare different countries' GDP per capita as a measure of the differences in wages. This study uses data on the real wages in the countries. Real wage comparisons between countries are likely

to influence migrants' decisions more directly than the more abstract measurement of a country's economic output per inhabitant.

Data is needed on the wage levels in all of the eleven countries in this study. This data on wages is drawn from the International Labour Office (ILO) database on labour statistics. The data is complete for all the countries in this study and for all years between 2003 and 2007. The wage data is based on the total average monthly wage across all major categories of economic activity.

Not in all cases was monthly data on wages available. In the case of two countries (Ireland and the United Kingdom) only data for earnings per week was available. This was then multiplied by the factor four to attain data on monthly earnings. In one case (Sweden) only hourly data on wages was available. In this case the data on hourly wages was multiplied by the factor 160 to generate data for the monthly wage. This calculation is based on a 40-hour working week which is typical for the Swedish labour market. Hence, it does not pose a threat to the validity of this study.

In order to achieve comparability of the measures, all of the country data are converted into Euro currency. This is done by using the official exchange rates at the time of each measurement of the wage level. The wage differential for each of the country pairs is then calculated by subtracting the specific CEEC-8 country wage level from the wage level of each of the Western European migration receiving countries. Hence it can be summed up in the formula

$$\text{Wage differential} = \text{Wage level}_{\text{migration receiving country}} - \text{Wage level}_{\text{migration sending country}}$$

The data on wage differentials calculated in this way are then put into relation to the observed inflows of migrants into the migration receiving countries. It is expected that wage differentials will influence the inflows of migrants. Higher values for wage differentials are expected to result in a higher values for the inflow of migrants. Both wage differentials and inflows of migrants are expected to decrease over time.

4. Data and Analysis

4.1. Introduction

The neo-classical economic model of migration will be applied separately on a country basis to each of the three migration receiving countries that allowed free movement of labour from the CEEC-8 migration sending countries. First, average wage differentials will be related to average yearly inflows of migrants in order to test the first hypothesis. As a next step, changes in wage differentials and inflows of migrants will be assessed over time in order to test the second hypothesis outlined in chapter 2.4. A lagged effect is used as changes in wage differentials in one year are expected to influence the inflow of migrants in the following year. This is due to the time lag between observation of a wage differential and the actual act of migration.

4.2. Description of the data

Data was collected for both the independent variable wage differential and the dependent variable inflow of migrants on a yearly basis for five years. Hereby, the independent variable was measured for the time period 2003 to 2007 and the dependent variable for 2004 to 2008 in order to account for the lagged effect. Data on wage levels is measured separately for each country and data on the inflow of migrants from each of the migration sending countries to each of the migration receiving countries.

First, on a country basis the relation between wage differential and inflow of migrants is described. Each migration receiving country is described separately, whereby the average wage differential over the observed time period is used. The inflow of migrants is measured as the average yearly inflow of migrants as a proportion of the migration sending country labour force size in order to control for different country size. The data is based on estimates for the year 2004. The data in full detail can be found in tables I and II in the appendix.

A very similar pattern emerges for all three migration receiving countries. There is evidence of a positive correlation between wage differential and inflow of migrants. However, there are two outliers in the data. These exceptions are Estonia and Slovenia. Inflows of migrants from both countries are higher than would be expected based on the wage differential.

Table 2: Average wage differential and average inflows of migrants - IE

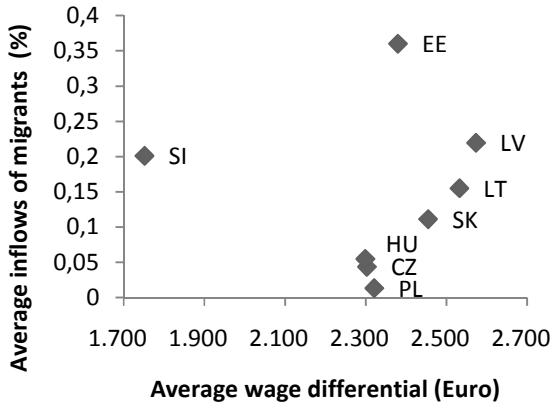


Table 3: Average wage differential and average inflows of migrants - SE

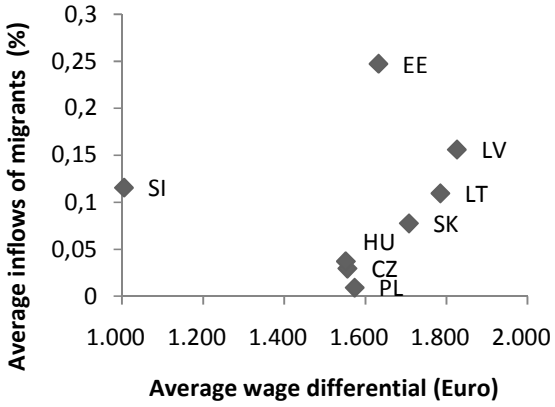
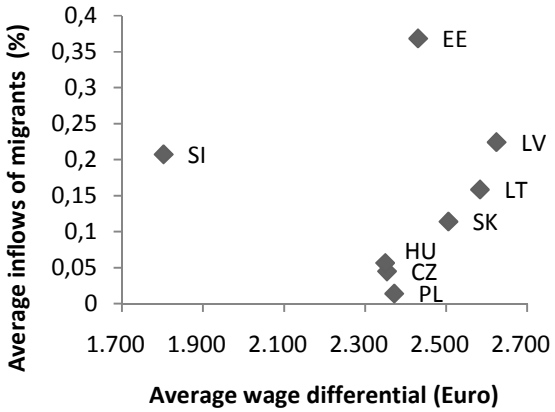
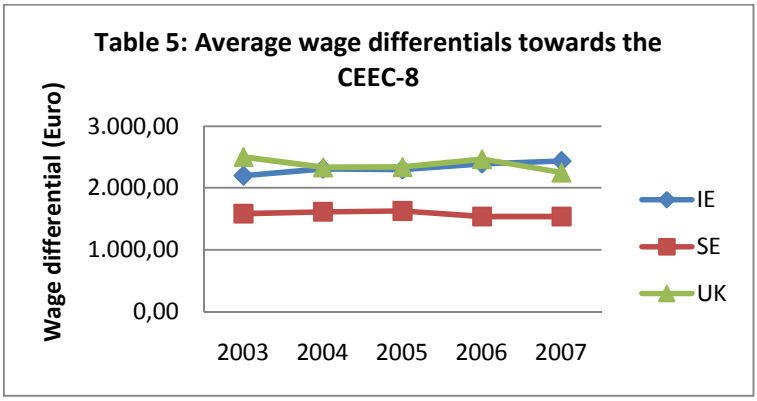
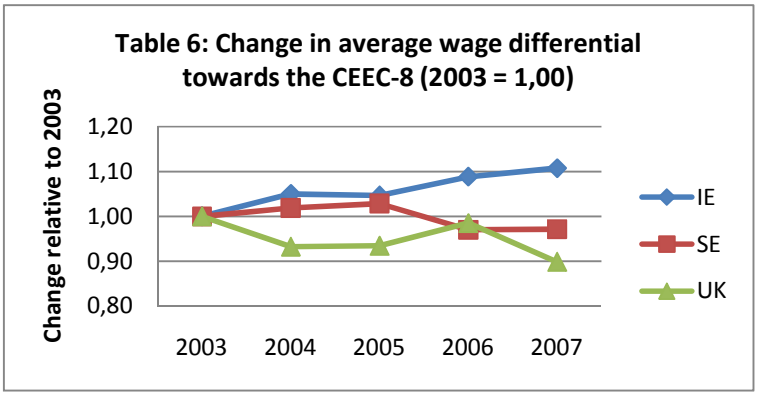


Table 4: Average wage differential and average inflows of migrants - UK



Next, the development of wage differentials between the migration sending and receiving countries is described. This is done using an average of each of three migration receiving country wage differentials towards the CEEC-8. The information on wage differentials shows that for each migration receiving country, there is a clear trend for the development of the wage differential. This trend is shared by all migration sending countries and hence the average can be used to assess the development of the wage differential. A detailed account can be found in table IV in the appendix. What is eye-catching about the data is the difference in wage differential between Slovenia and the rest of the CEEC-8 countries. The wage differential between Slovenia and the migration receiving countries is significantly smaller than for all other CEEC-8 countries which remain very close to each other on this value.



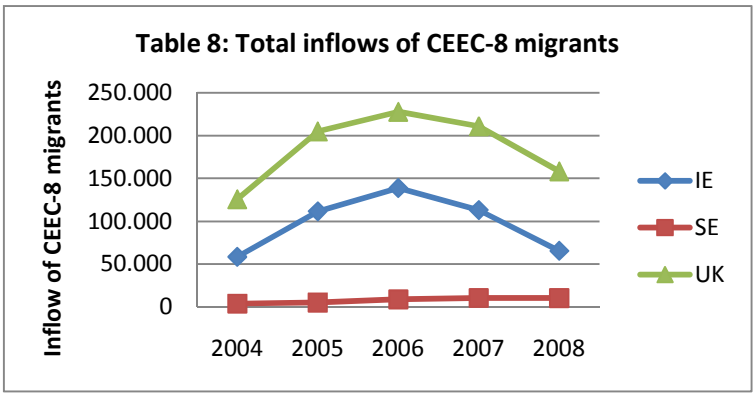


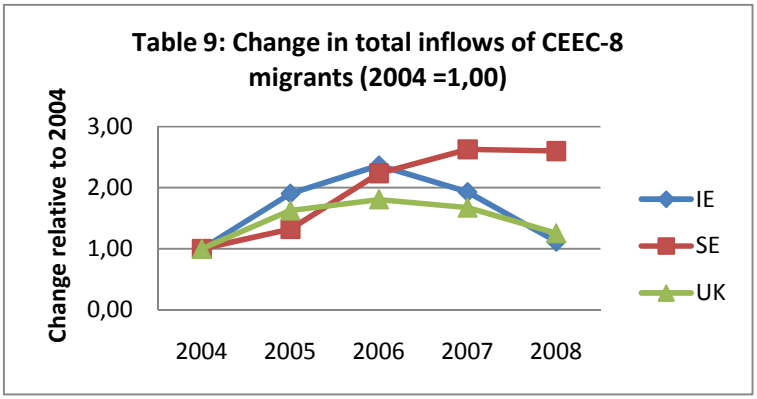
It is clear from this data that there is no uniform development of wage differentials between the three migration receiving countries. They rather display contradictory patterns of development. For Ireland, there is a clear upward development. The wage differential continuously grows. The wage differential in 2007 is 11% higher than in the base year 2003. This equals an average annual increase of 2.75% which is relatively evenly distributed.

The Swedish data show a mixed picture with no clear trend distinguishable. Until the year 2005, wage differential increases slightly to a value 4% higher than in 2003. Then it falls to 98% in 2006 and stagnates at 99% in 2007. Hence, it does not show a coherent trend but rather stagnation. The United Kingdom is the only country in which a clear decrease in wage differential can be observed. However, this development is not constant. While the wage differential declines to 93% of the 2003 value in 2004 and stagnates there in 2005, it returns to 99% in 2006. In 2007, it falls again to 90% of the base value. Overall, it can be stated for the United Kingdom that a trend for the decrease of wage differential can be observed although this development is not continuous due to the exceptional value in 2004. It can be said that no clear trend of the wage differential across all countries can be established.

Next, the development on the variable inflows of migrants is assessed. On a general level, eye-catching about the data are the very high inflows of Polish migrants compared to the other migration sending countries. When looking at the total inflows for each of the three migration receiving countries, Ireland and the United Kingdom show a similar pattern of development. The extent of Inflows of migrants rises until the year 2005, after which it starts to fall again to return to values comparable to the year 2004.

The development in Sweden is different. A continuous upward trend can be observed until the year 2007 that stagnates in 2008. The detailed data on inflows of migrants can be found in table V in the appendix.





Concluding the data description, it can be stated that no uniform development can be observed over the three migration receiving countries. Rather, the data on them show country-specific developments. The changes in the inflows of migrants to Ireland and the United Kingdom show a very similar pattern. Both show a very high inflow that has the year 2006 as its climax and then is reduced almost symmetrically to the values of 2004. However, these two countries show contrary development with regard to the variable wage differential. While in the United Kingdom a significant decline of 10% can be observed from 2003 to 2007, Ireland shows a strong growth of 11% on this variable in the same time frame.

Compared to these two countries, data on Sweden shows a different picture. The wage differential remains very stable over the whole time period observed. On the contrary to Ireland and the United Kingdom, the number of inflows of migrants rises steadily until 2007 and then remains at this level. There is no sign of the decrease of inflows as in the two other countries.

4.3. Analysis

From the basis of the neo-classical economic theory of migration, it is assumed that wage differentials are positively related to inflows of migrants to the higher wage region. It is expected that wage differentials decline over time as market forces work towards equilibrium on the labour market. As wage differentials are the motivating factor behind migration according to the theory, a decline on this factor is expected to lead to a decline of inflows of migrants. Whether these theoretical expectations are met is analyzed on a country basis.

First, the relationship between average wage differential and average yearly inflow of migrants is discussed. This is analyzed separately for each EU-3 country. From the data, a relation between the two variables can be distinguished for all three countries. However, there are two outliers, Estonia and Slovenia, which are not in line with the data for the rest of the CEEC-8.

Testing for correlation using the Pearson product-moment correlation coefficient (denoted as r) shows how significantly these two outliers influence the strength of the correlation. Calculating r for each of the three countries, there is no correlation for Ireland the United Kingdom, while the correlation for Sweden is low at 0.11. If the two outliers are excluded from the data, a large correlation of 0.96 is measured for all three migration receiving countries.

Table 10: Correlation between average wage differential and average yearly inflow of migrants as a proportion of the sending country labour force size

	IE	SE	UK
correlation for CEEC-8	0.00	0.11	0.00
correlation for CEEC-8 excluding EE and SI	0.96	0.96	0.96

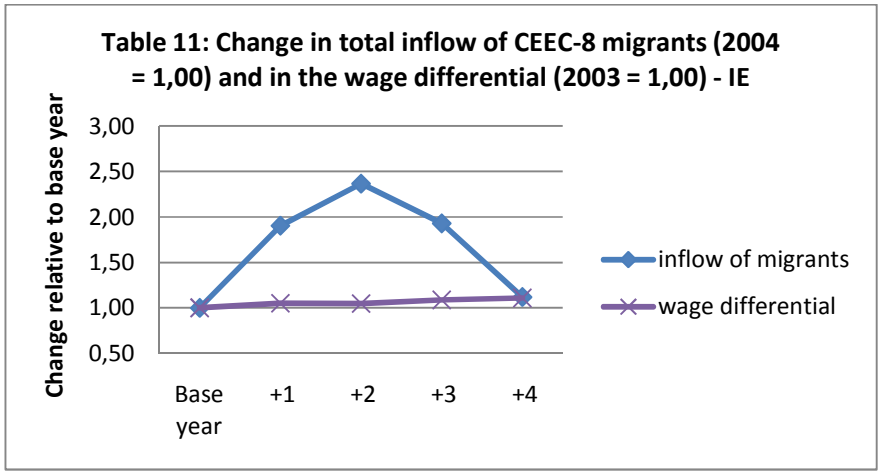
Source: Own calculations

Hence, there appears to be some evidence that wage differentials indeed are positively correlated to inflows of migrants as is stated in hypothesis one. However, other factors are likely to be present that explain the outcomes for the two countries representing the outlier data.

For both countries, the number of migrants is significantly higher than what would be expected based on their wage differential. It has to be noted that these two countries are also the ones with the smallest labour force size by far of the CEEC-8. The Estonian labour force only numbers 660.000 while the Slovenian labour force is 870.000. This may explain why relatively low inflows of migrants from these countries in absolute terms account for a very high proportion relative to the national labour force size.

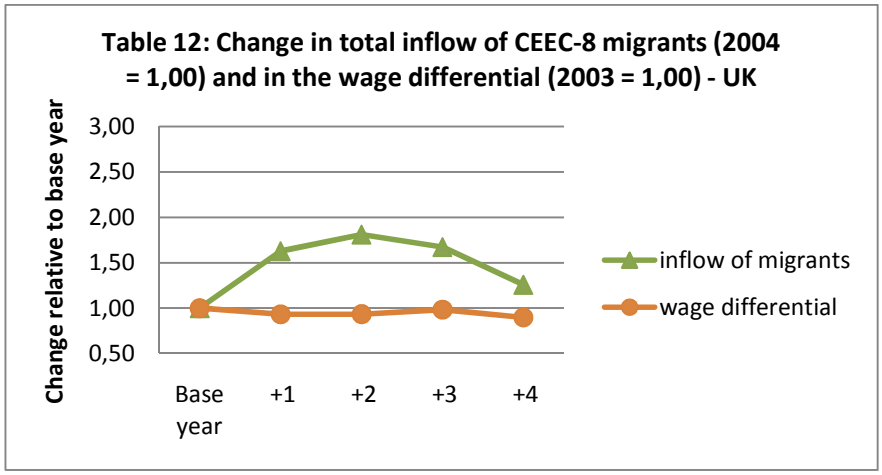
In the case of Slovenia, another factor is also likely to explain the fact that inflows from this country were higher than predicted based on the theory. The wage differential between Slovenia and the EU-3 was very low relative to the rest of the CEEC-8. Hence, based on the theory a very low number of migrants would have been predicted. However, although the wage differential was low relative to the CEEC-8 countries, it nevertheless remained significant in absolute terms. Hence, although the average wage differential of 1520 euro is low relative for instance to the value of 2341 euro for Latvia, it still is likely to provide a strong enough incentive for emigration to the EU-3. Although the factors mentioned here are likely to partly explain these exceptional values for Estonia and Slovenia, further research needs to be conducted to determine the exact factors in more detail.

Next, the data on change of the average wage differential is assessed. The data from Ireland shows a significant and constant increase in the wage differential over the observed time period. At the same time, inflows of migrants increase significantly until the year 2006 and then start to decline. The total growth of 11% of the wage differential is very high. It can clearly be attributed to the real wage increases in Ireland as they increased by 19% over the observed time period. This is contrasted to a mere 13% in the United Kingdom and Sweden and helps to explain why the wage differential became larger over time. The reason for this large increase in wage levels lies in the exceptional economic circumstances present in the country in these years. The economic boom of the "Celtic Tiger" helps to explain this exceptional development of wages. Concerning the development of the inflows of migrants, Ireland clearly follows the same pattern as the United Kingdom which will be discussed together.



In the United Kingdom on the other hand, wage differentials showed a different development. It is the only country in which wage differentials declined. There is real convergence between wage levels of the UK and the CEEC-8 countries. However, it also has to be noted that variation of the exchange rate between the British Pound and the Euro has also affected the development significantly. By 2007, the Pound had lost 13% in relation to the Euro compared to its value in 2003. Hence, although wages in the UK did increase over the time period by 13%, this development is outbalanced by the falling exchange rate. Hence, a stagnation of wages remains also from the migrants' perspective, as it is likely that they

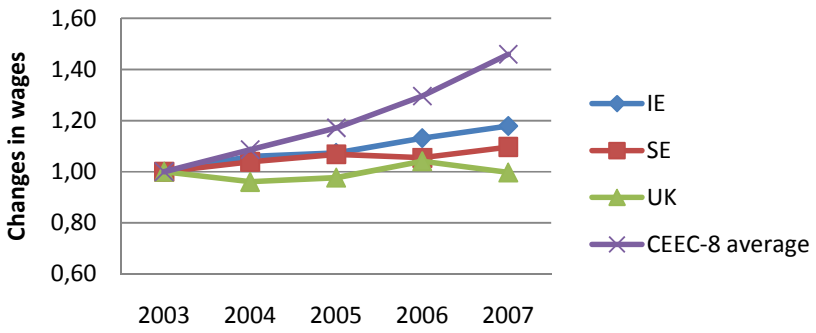
base their migration decision on converted wages. The decline in the wage differential can hence be explained by stagnation of wages converted into euro with simultaneous growth in the CEEC-8.



As stated above, both Ireland and the United Kingdom show a similar development of the inflows of migrants despite their different developments on the independent variable wage differential. This makes it seem likely that variables other than wage differential have had more significant influence on inflows of migrants. Especially two factors appear to be likely causes for the rapid decline in the inflows of migrants.

Firstly, the financial crisis was approaching. The financial crisis showed its first effects in late 2007 and became more severe afterwards, thereby reducing possibilities of employment. Economic recession is known to have a negative effect on the inflow of migrants (Green, 2010). Secondly, economic prospects in migration sending countries had significantly improved. The data on wage levels shows that over the whole time period, increases in wages were higher in the CEEC-8 as can be expected due to these countries higher growth rates of the economy. However, this increase became even more highlighted from the year 2005 on. Over the observed time period, all of the CEEC-8 countries had a higher growth of average wage levels than the EU-3. While Ireland experienced a rise of 18%, average wage levels rose by 19% in Slovenia and by 35% and above in all other CEEC-8 countries. For detailed data, see table III in the appendix.

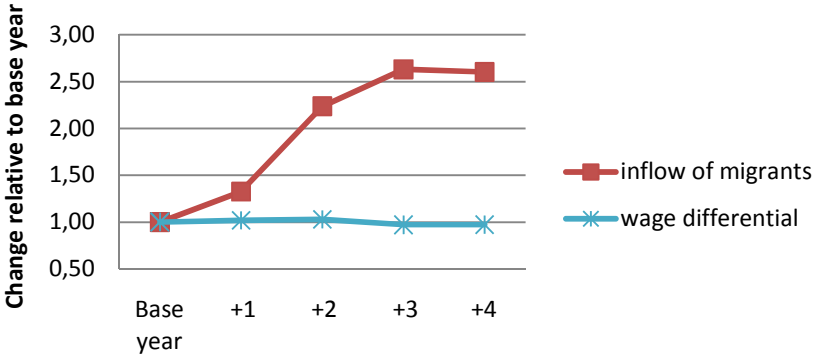
Table 13: Changes in wages in the CEEC-8 and the EU-3 (2003 = 1,00)



As a consequence, the incentive for potential migrants became smaller as they could expect to earn more than before at home. This combination of bleaker prospects in the migration receiving countries and improved chances in the migration sending countries are likely to have caused the steep decline in inflows of migrants from 2006 on.

For Sweden, the development of the variables shows a different pattern as in the two other countries. Wage differentials between Sweden and the CEEC-8 did not decrease but rather remained stagnant. In contrast to the United Kingdom, this evaluation is not distorted by exchange rates as the Swedish krona remained relatively stable over time towards the euro. Economic theory predicts a convergence between the CEEC-8 and Sweden as the new member states are developing faster. Hence, the stagnation of wage differential in Sweden is a sign of a prospering economy, as the country was able to keep up with the CEEC-8 countries in terms of growth. Indeed, the Swedish economy was relatively strong in the observed time period although the magnitude of the boom was smaller than in the case of Ireland (Zimmermann, 2009).

Table 14: Change in total inflow of CEEC-8 migrants (2004 = 1,00) and in the wage differential (2003 = 1,00) - SE



Inflows of migrants show a constant increase until the year 2007 and remain stagnant in 2008. The effects of the economic downturn and improved economic conditions in the migration sending countries are likely causes for this development. What remains eye-catching about the inflows to Sweden is the small scale on which migration occurred. During the time period observed, Sweden received a total of 38,000 migrants compared to 488,000 (Ireland) and 928,000 (United Kingdom).

Different reasons are likely to have caused the relatively small inflow of CEEC-8 nationals to Sweden. Although the Swedish economy was doing very well in the observed time period, there were relatively few job vacancies. This is likely to have influenced migration flows, as migration is closely linked to economic conditions in the receiving country. It has been argued that the reason for the small number of vacancies was the relative inflexibility of the Swedish labour market (Zimmermann, 2009). Furthermore, labour market access to Sweden seems to have been relatively difficult for CEEC-8 nationals (Doyle et al., 2006).

Both difficult labour market access and few job vacancies are likely to have influenced the inflows of migrants dramatically, as migrants to Ireland and the United Kingdom did not experience comparable problems to a significant extent. These specific characteristics of the Swedish labour market can hence be expected to have made the country relatively less attractive as a target country compared to Ireland and the United Kingdom. Hence, in the light of equal conditions for migration it can be assumed that significant diversion of migration towards Ireland and the United Kingdom has occurred.

Two other factors are also likely to have contributed to the diversion of migration. Language may have played an important role. Many of the CEEC-8 migrants may already have known English prior to migration or considered it more worthwhile than Swedish to learn. Migrant networks may also have played an important role. Migrant networks reduce costs of migration as they can provide information about general circumstances in the migration receiving region and especially about the labour market. The new migrants can expect help in the settlement process and hence costs of uncertainty are reduced.

Consequently, an accelerating process is created in which migration induces new migration. This seems likely in the case of Ireland and the United Kingdom. Specifically the fact that CEEC-8 migrants are not spread evenly in the country but tend to be clustered in certain areas makes this factor likely to have influenced the inflow of migrants (Home Office, 2007; Bauere et al., 2007). In a study on Polish migrants, it was also confirmed that most migrants find jobs through a network of friends (Grabowska, 2003).

These factors are likely to account for the diversion of migration from Sweden to Ireland and the United Kingdom. However, the distribution of migrants between these two countries is remarkable. The Irish labour market is only approximately 15% the size of the one in the United Kingdom. Still, Ireland attracted more than half of the two countries combined inflow of migrants. The exceptional boom in the Irish economy is likely to have been a factor in this development, as CEEC-8 migrants had a very high probability of finding employment in the booming economy. Migrant networks can then be assumed to have accelerated and contributed to the continued inflow at a high level.

One possible reason for the diversion of migration to Ireland may lie in the Worker Registration Scheme enacted in the United Kingdom. For CEEC-8 nationals, it is mandatory to register for monitoring

purposes. Practically all applications to the WRS are approved. In the time period from 2004 to 2007, a total of 558,555 applications were made, of which 4235 were not approved (Home Office, 2007). This corresponds to only 0.76% of applicants being denied approval of their WRS registration. However, it has to be noted that a fee of 90 British Pounds has to be paid for registration and migrants may fear the paperwork. As this poses additional hindrances for migrants it may influence their decision. Further research is needed to clarify the reasons for the large inflow of migrants to Ireland.

Generally, what can be stated is that welfare policies are unlikely to have influenced the inflows of migrants to the three migration receiving countries. Although they to some extent adopted different policies towards CEEC-8 migrants' access to benefits, these include similar conditions for the receipt of transfers. The United Kingdom requires 12 months of work in the UK, while Ireland has enacted the Habitual Residence Condition which requires 24 months of residence in the common travel area. A shorter period may be applied based on employment record and future intentions of staying in Ireland.

Sweden applies Community legislation, which also states that migrants have to have worked for an extended amount of time in the country before welfare benefits can be received. Several studies have shown that "welfare tourism" has not been a major issue following the 2004 enlargement (Ahearne et al., 2009; Zaiceva and Zimmermann, 2008; Zimmermann, 2009). Furthermore, it is likely that geographic distance does not play a significant role. Costs of air transportation have significantly decreased in the EU, thereby making distance less important. Also, the primarily young and relatively highly skilled migrants from the CEEC-8 tend to be particularly mobile (Kahanec et al., 2009).

Overall, the changes that occurred on the independent and dependent variable can only partly corroborate the hypotheses. The evidence for corroboration is stronger for the first than for the second hypothesis. By looking at variations across countries, it can be stated that wage differentials indeed seem to be positively related to inflows of migrants. For six of the CEEC-8 states, there is a clear trend in this direction. However, the first hypothesis cannot be fully corroborated as two outliers remain which the theory cannot account for.

Concerning a decline of the wage differential and inflows of migrants, no coherent trend can be established. While wage differential decline in the United Kingdom, they remain stagnant in Sweden while Ireland shows a trend towards a higher wage differential. Inflows of migrants also seem likely to be influenced by other factors as well. Ireland and the United Kingdom show a similar development with a climax in 2006 and subsequent decline. In Sweden, the inflow rises until 2007 and then stagnates.

Economic considerations seem to be crucial determinants in shaping migration. This can be seen by the higher inflows of migrants from countries with greater wage differentials and by the large inflow to Ireland and the United Kingdom as they had prospects of higher wages compared to Sweden. It can also be seen in the reduction of migration following bleaker economic opportunities in the destination countries and better economic prospects in the migration sending countries. Other factors do however also need to be taken into account. Especially migrant networks and language are likely to have had an influence on migration. Also, it is possible that minor differences in policies that remain may have resulted in some diversion of migration flows. Further research in this field is required.

5. Conclusion

Prior to enlargement, there were great concerns about mass migration induced by economic disparities amongst the EU-15 public. These concerns culminated in the introduction of transition periods on the free movement of labour. The three countries that did not apply such measures provided the basis for this study to assess whether the extent of a wage differential can account for volume and direction of inflows of migrants and whether wage differentials and inflows of migrants decrease over time.

From the study, it is clear that movements of around 1.5 million people have taken place over five years. These movements have however not been equally distributed, but rather Ireland has received a disproportionately high number of migrants especially compared to Sweden to which inflows were very small. The United Kingdom received the highest total inflow, but it also has to be noted that it has the largest labour market by far of the three countries studied. The development of wage differential in relation to the CEEC-8 over time differentiated between all of the migration receiving countries. While wage differentials became greater in Ireland, they stagnated in Sweden and decreased for the United Kingdom.

The results show that the neo-classical economic theory of migration has some explanatory power as can be seen by the correlation of wage differential and inflows of migrants for most of the CEEC-8. It is also clear from the study that economic considerations play a major role in the migration process. This can be seen in the deviation of migration to Ireland and the United Kingdom and the economic reasons that shaped the inflows of migrants over time.

As economic considerations appear to be important determinants of migration, the perspective taken by the neo-classical economic theory can make a contribution to explaining patterns of migration. However, this study has also shown that while economic reasons are important, other factors need to be taken into account as well. Based on this study, the assumptions regarding the relationship between wage differentials and inflows of migrants could partly be corroborated, while the development over time showed a more mixed picture.

As stated before, the study of migration is a very fragmented field with contributions from different disciplines. Based on the results of this study, it is evident that an approach is needed that combines different strands of theorizing on migration into a coherent theoretical framework. The neo-classical economic model can make a contribution, but will need to be complemented by elements of other theories. Based on this study, particularly the theory of cumulative causation with its concept of migrant networks could provide an important addition to a broader framework for the study of migration. This framework for the study of migration should take both macro and micro factors into account in order to make it possible to grasp the complex processes at work in shaping migration flows.

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7. Appendix

Table I: Labour Force Size of EU-3 and CEEC- 8

	Labour Force Size
Country	2004 estimate
IE	1.920.000
SE	4.460.000
UK	29.780.000
CZ	5.250.000
EE	660.000
HU	4.170.000
LV	1.170.000
LT	1.630.000
PL	17.020.000
SK	2.200.000
SI	870.000

Source: CIA, 2005

Table II: Average wage differential (2003-2007) and average inflows of migrants as a proportion of the migration sending country labour force

Migration receiving country – Migration sending country	Average wage differential 2003-2007 (Euro)	Average yearly inflows of migrants (2004-2008) as a proportion of the migration sending country labour force (%)
IE-CZ	2.303	0,04
IE-EE	2.379	0,36
IE-HU	2.299	0,06
IE-LV	2.573	0,22
IE-LT	2.532	0,16
IE-PL	2.321	0,01
IE-SK	2.454	0,11
IE-SI	1.752	0,20
SE-CZ	1.556	0,03
SE-EE	1.633	0,25
SE-HU	1.552	0,04
SE-LV	1.826	0,16
SE-LT	1.785	0,11
SE-PL	1.574	0,01
SE-SK	1.708	0,08
SE-SI	1.005	0,12
UK-CZ	2.354	0,04
UK-EE	2.431	0,37
UK-HU	2.350	0,06
UK-LV	2.624	0,22
UK-LT	2.583	0,16
UK-PL	2.372	0,01
UK-SK	2.506	0,11
UK-SI	1.803	0,21

Source: Own calculations based on International Labour Office, 2010; CIA, 2005

Table III: Average Wage levels in EU-3 and CEEC-8

	Wage Differential (Euro)					Change 2003-2007 (%)
Country	2003	2004	2005	2006	2007	
IE	2.688	2.849	2.886	3.042	3.170	+ 18%
SE	2.073	2.153	2.215	2.186	2.274	+ 10%
UK	2.992	2.875	2.925	3.115	2.985	+/- 0
CZ	488	559	616	692	765	+ 57%
EE	430	466	516	601	724	+ 69%
HU	529	592	633	672	715	+ 35%
LV	264	279	325	386	515	+ 95%
LT	310	333	369	434	528	+ 70%
PL	464	557	612	650	747	+ 61%
SK	350	409	456	545	601	+ 72%
SI	1.084	1.132	1.159	1.215	1.285	+ 19%

Source: Own calculations based on International Labour Office, 2010

Table IV: Wage differentials between EU-3 and CEEC-8

	Wage Differential (Euro)				
Migration receiving country – Migration sending country	2003	2004	2005	2006	2007
IE-CZ	2.199	2.290	2.270	2.350	2.404
IE-EE	2.258	2.383	2.370	2.441	2.445
IE-HU	2.159	2.257	2.253	2.370	2.454
IE-LV	2.423	2.570	2.561	2.656	2.654
IE-LT	2.377	2.517	2.516	2.608	2.642
IE-PL	2.224	2.293	2.273	2.392	2.422
IE-SK	2.338	2.440	2.430	2.496	2.568
IE-SI	1.604	1.717	1.727	1.827	1.885
SE-CZ	1.584	1.595	1.599	1.494	1.508
SE-EE	1.643	1.688	1.699	1.584	1.549
SE-HU	1.544	1.561	1.582	1.514	1.558
SE-LV	1.809	1.875	1.890	1.799	1.758
SE-LT	1.763	1.821	1.845	1.752	1.746
SE-PL	1.609	1.597	1.602	1.535	1.526
SE-SK	1.723	1.744	1.758	1.640	1.672
SE-SI	989	1.022	1.056	971	989
UK-CZ	2.504	2.316	2.308	2.423	2.219
UK-EE	2.562	2.409	2.409	2.513	2.260
UK-HU	2.464	2.282	2.292	2.443	2.269
UK-LV	2.728	2.596	2.600	2.728	2.469
UK-LT	2.682	2.542	2.555	2.681	2.457
UK-PL	2.528	2.318	2.312	2.464	2.237
UK-SK	2.642	2.465	2.468	2.569	2.383
UK-SI	1.908	1.743	1.766	1.900	1.700
Average IE	2.198	2.308	2.300	2.392	2.434
Average SE	1.583	1.613	1.629	1.536	1.538
Average UK	2.502	2.334	2.339	2.465	2.249

Source: Own calculations based on International Labour Office, 2010

Table V: Inflows of migrants from CEEC-8 to EU-3

	Inflows of migrants				
Migration receiving country – Migration sending country	2004	2005	2006	2007	2008
IE-CZ	3.322	4.496	4.458	3.833	2.762
IE-EE	1.792	2.007	1.404	646	571
IE-HU	1.837	3.084	4.320	5.047	4.558
IE-LV	12.816	18.690	16.020	10.707	6.422
IE-LT	6.295	9.310	7.947	4.666	3.719
IE-PL	27.291	64.612	93.606	79.678	42.476
IE-SK	64	73	99	63	86
IE-SI	5.187	9.363	10.848	8.470	4.985
SE-CZ	88	113	170	207	325
SE-EE	403	383	422	421	389
SE-HU	228	269	462	776	1.018
SE-LV	206	232	359	333	404
SE-LT	438	695	895	918	915
SE-PL	2.458	3.420	6.347	7.525	6.970
SE-SK	105	97	150	173	208
SE-SI	34	36	50	63	74
UK-CZ	8.255	10.575	8.345	7.510	6.520
UK-EE	1.860	2.560	1.475	965	945
UK-HU	3.620	6.355	7.060	8.800	10.865
UK-LV	8.670	12.960	9.490	6.285	6.960
UK-LT	19.275	22.990	17.065	14.265	11.535
UK-PL	71.025	127.325	162.495	150.255	103.015
UK-SK	13.020	22.035	21.755	22.450	18.310
UK-SI	160	175	180	190	195
Total IE	58.604	111.635	138.702	113.110	65.579
Total SE	3.960	5.245	8.855	10.416	10.303
Total UK	125.885	204.975	227.865	210.720	158.345

Source: Central Statistics Office Ireland, 2010; Statistics Sweden, 2010; Home Office, 2008