PALACKY UNIVERSITY IN OLOMOUC
(UNIVERZITA PALACKÉHO V OLOMOUCI)

FACULTY OF SCIENCE

DEPARTMENT OF DEVELOPMENT STUDIES

Determinants of International Migration: Push Factors of Migration from Developing Countries to the Czech Republic

Determinanty mezinárodní migrace: Push faktory migrace z rozvojových zemí do České republiky

(Master's Thesis)

Author: Bc. et Bc. Aneta Haimannová

Supervisor: Ing. Mgr. Jaromír Harmáček, Ph.D.

Olomouc, 2015

Declaration of Authorship

I do solemnly declare that I have written the presented master's thesis *Determinants of International Migration: Push Factors of Migration from Developing Countries to the Czech Republic* independently and that I have correctly acknowledged all bibliographical references and quotations.

In Olomouc (date): Signature:.....

Acknowledgement

I take this opportunity to express my profound gratitude to the supervisor of this thesis Ing. Mgr. Jaromír Harmáček, Ph.D. for his patient guidance and valuable recommendations.

Abstract

The primary aim of this master's thesis is to analyse potential determinants that may drive migration from developing countries to the Czech Republic. The first part of the thesis will analyse the impacts of push factors (domestic economic opportunities, political freedom and other home country characteristics, links to the Czech Republic, etc.) on the total immigration flows to the Czech Republic (from selected developing countries). Second part of the thesis will compare the results of analysis with prior studies in order to confirm or disprove their general validity.

The determinants derived from the new system approaches to international migration have stronger explanatory power than those derived from other theories according to my analysis. Due to differences in the results, I argue that the hypothesis presented by Rotte and Vogler's (1998) is not generally valid and can be disproved on the case of the Czech Republic.

Keywords

Migration, push factors of migration, determinants of migration, asylum, developing countries, Czech Republic

Abstrakt

Primárním cílem této magisterské diplomové práce je analyzovat potenciální determinanty, které mohou být příčinou migrace z rozvojových zemí do České republiky. V první části této práce bude pozornost věnována analýze vlivu jednotlivých push faktorů (domácí ekonomické příležitosti, politické svobody a další charakteristiky zemí původu, vazby s Českou republikou, atd.) na celkový příliv imigrantů do České republiky z vybraných rozvojových zemí. V druhé části pak budou výsledky analýzy komparovány s výsledky již existujících studií s cílem potvrdit či vyvrátit jejich obecnou platnost.

Determinanty derivované ze systémových teorií mezinárodní migrace se dle analýzy ukázaly být významnější než determinanty z jiných zkoumaných teorií. Na základě rozdílných výsledků závěrem tvrdím, že hypotéza prezentovaná německými autory Rottem a Voglerem (1998) není obecně platná a může být vyvrácena na případové studii České republiky.

Klíčová slova

Migrace, push faktory migrace, determinanty migrace, azyl, rozvojové země, Česká republika

UNIVERZITA PALACKÉHO V OLOMOUCI
Přírodovědecká fakulta
Akademický rok: **2013/2014**

ZADÁNÍ DIPLOMOVÉ PRÁCE

(PROJEKTU, UMĚLECKÉHO DÍLA, UMĚLECKÉHO VÝKONU)

Jméno a příjmení:	**Bc. Aneta HAIMANNOVÁ**
Osobní číslo:	**R130092**
Studijní program:	**N1301 Geografie**
Studijní obor:	**Mezinárodní rozvojová studia**
Název tématu:	**Determinanty mezinárodní migrace: Push faktory migrace z rozvojových zemí do České republiky**
Zadávající katedra:	**Katedra rozvojových studií**

Zásady pro vypracování:

The primary aim of this master thesis is to analyse potential determinants that may drive migration from developing countries to the Czech Republic. The first part of the thesis will focus on analysis of the impact of push factors (domestic economic opportunities, political freedom and other home country characteristics, links to the Czech Republic, etc.) on the total total immigration inflows to the Czech Republic (from selected developing countries). Second part of the thesis will compare the results with prior studies that has been done in order to confirm their general validity.

Rozsah grafických prací: dle potřeby

Rozsah pracovní zprávy: 20 - 25 tisíc slov

Forma zpracování diplomové práce: tištěná/elektronická

Seznam odborné literatury:

EUROPEAN COMMISSION, Eurostat. Push and pull factors of international migration: a comparative report. Luxembourg: Off. for Official Publ. of the Europ. Communities, 2000. ISBN 92-828-9721-4.
KIM, Keuntae a Joel E. COHEN. Determinants of International Migration Flows to and from Industrialized Countries: A Panel Data Approach Beyond Gravity International Migration Review[online]. 2010, vol. 44, issue 4, s. 899-932 [cit. 2014-01-28]. DOI: 10.1111/j.1747-7379.2010.00830.x. Dostupné z: http://doi.wiley.com/10.1111/j.1747-7379.2010.00830.x
International migration review [online]. New York: Center for migration studies of New York [cit. 2014-01-28]. Dostupné z: http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1747-7379
GREENWOOD, Michael J. Human Migration: Theory, Models, and Empirical Studies. Journal of Regional Science[online]. 1985, vol. 25, issue 4, s. 521-544 [cit. 2014-01-28]. DOI: 10.1111/j.1467-9787.1985.tb00321.x. Dostupné z: http://doi.wiley.com/10.1111/j.1467-9787.1985.tb00321.x
PÂNZARU, Ciprian. The Determinants of International Migration. A Panel Data Analysis. In: Journal of Politics and Law [online]. Vol. 6, No. 1; 2013, 2012 [cit. 2014-01-28]. DOI: 10.5539/jpl.v6n1p142. Dostupné z: http://dx.doi.org/10.5539/jpl.v6n1p142

Vedoucí diplomové práce: Ing. Mgr. Jaromír Harmáček, Ph.D.
Katedra rozvojových studií

Datum zadání diplomové práce: 29. ledna 2014

Termín odevzdání diplomové práce: 16. dubna 2015

L.S.

Prof. RNDr. Ivo Frébort, CSc., PhD.
děkan

Doc. RNDr. Pavel Nováček, CSc.
vedoucí katedry

V Olomouci dne 3. února 2014

Table of Content

List of Tables

List of Charts

List of Abbreviations

CSU	Czech National Statistical Office
CZK	Czech Crown (Czech Koruna), national currency
EU	European Union
GLS	generalized least squares
GNI	Gross National Income
GDP	Gross Domestic Product
IMF	International Monetary Fund
IZA	The Institute for the Study of Labour
LDCs	Least Developed Countries
MZV	Ministry of Foreigner Affairs Czech Republic
OECD	Organisation for Economic Cooperation and Development
OLS	ordinary least squares

List of used abbreviations of Czech political parties:

CSSD	Czech Social-Democratic Party
KSCM	Communist Party of Bohemia and Moravia
LIDEM	Liberal Democrats
ODS	Civic Democratic Party
TOP 09	Czech liberal conservative political party
UPD	Dawn of Direct Democracy

Introduction

International migration of individuals and global cross-border movements of labour force are current issues which are matters of interest of scholars and theorists as well as policy makers around the world. Migration theory is an academic field with a long history and a progressive development responding to the rapid changes in temporary demographic structures of both industrialized and developing countries. The research on international migration is multidisciplinary and its roots lie in studies of the neoclassical economy, sociology and demography. The first author who specialized in the field and promoted its importance and explanatory power for many other humanities was Ernest Georg Ravenstein. *The Laws of Migration* written by Ravenstein was published in 1885. The field of migration studies has been recently (in 2013) elevated by founding the international refereed journal *Migration Studies* which now takes part of the prestigious collection *Oxford Journals.* The journal is dedicated to advancement of scholarly understanding of determinants, processes and outcomes of the human migration in all its manifestations. Simultaneously, the international migration is becoming an independent field of study in many universities around the world.

The patterns of domestic migration and cross-border migration between countries with the same or similar levels of economic development have been relatively well explained by the theories which focus on migration determinants. One of the first authors who tried to develop an independent theory of the migration determinants was demographer Donald J. Bogue in 1952. Bogue was the first one defining a specific set of push and pull factors that drive migration and stay behind the decision making-process of migrants whether and where to migrate. (Bogue, 1952) His theory was further expanded by many other scholars throughout the twentieth century.

However, the understanding of determinants which drive migrants from developing to industrialized countries still remains poor and insufficient in comparison to the migration between countries with the same or similar level of economic development. The absence of comprehensive theory accompanied by insufficient number of empirical research is even more apparent while looking at the migration to so called “new immigration countries” – the category where belongs also the Czech Republic and other Eastern European states.

Determinants of domestic or international migration used for empirical studies are generally extracted from particular international migration theories. Each theory considers different components as the most important mechanisms standing behind the decision-making process of immigrants whether to migrate or which destination country to choose as the country of residence. Initial theories considered mainly the differences between countries as the most important determinant for rational decision of all potential migrants. Current models deal also with the presence of imperfect information, immigration costs and they try to incorporate particular theories into the system approaches in order to explain all aspects of international migration together. Furthermore, theories of migration policy and politics have emerged with the objective to explain reactions of industrialized countries' policy-makers on increasing immigration flows.

Majority of the scholars have agreed on the classification of migration determinants into four main categories: social, economic, political and network-oriented (see i. e. Kritz and Zlotnik, 1992; Jennissen, 2007). Pull and push factors can be found in all of them. Majority of these determinants is deeply related to the differences between the migrant's country of origin and the country of destination he chooses. International migration has therefore come into focus of many other economic and social theories. However, the decision-making process of an immigrant is not always entirely rational for many reasons that will be described later in this thesis. Furthermore, theorists of modern approaches also argue that the decision is often not individual, but depends on the whole family or community. Since the migrants are not always rational and individual actors and they do not always chose the most cost-effective option, the economic approaches do not have a perfect explanatory power for this field. It is therefore important to produce more empirical studies and develop models that incorporate more variables which have some impact on international migration.

The statistical significance of determinants derived from the theories is often tested on the countries with a long history of immigration, such as Western European states or the United States of America, but rarely on the "new immigration countries" such as the Czech Republic. Understanding of migration to the Eastern Europe became crucial particularly since many countries of the former Eastern Bloc entered the European Union which currently attempts to harmonize the national immigration policies and has launched a common asylum system.

In this thesis I will present my analysis of the determinants of migration from developing countries to the Czech Republic. A similar research has been done in 1998 by Ralph Rotte and Michael Vogler who tested the determinants of the immigration to Germany. The research was presented in a discussion paper by The Institute for the Study of Labor (IZA) called *Determinants of International Migration: Empirical Evidence for Migration from Developing Countries to Germany*. Afterwards, their work was referenced in many other academic papers and journals and became an important empirical component in understanding the immigration from developing countries (as examples see i. e. Eylemer and Şemsit, 2007; Sprenger, 2013). The objective is to reassume this research in my thesis and apply a similar method on the case study of the Czech Republic. The method of analysing and summarizing academic resources, databases and law documents will be used in the first two chapters. The complete methodology of the following empirical part and the examined dataset will be presented and described later in detail.

The Rotte and Vogler's (1998) method and particularly the used dataset will be adjusted to the Eastern European environment and to the empirical researches that have been published after 1998. This is the reason why the full methodology will be presented after the chapter summarizing the main patterns of immigration to the Czech Republic and after presenting the theoretical framework. Key variables tested in the empirical part of this thesis will be derived from both of these chapters.

Key objectives

The main objective of this thesis is to analyse the key determinants which drive the migration from developing countries to the Czech Republic. I aim to answer the following three research questions.

Firstly, the aim of this paper is to examine what are the patterns of immigration to the Czech Republic between 1995 and 2012, what theory can be used to explain them and which variables can be derived from the theory and prior empirical estimation results. The examined period was chosen according to the data availability and suitability for the country. The statistics of the international migration in the Czech Republic are recorded from 1993. As for the prior period, only data for Czechoslovakia are available, although it is possible to find data for the domestic migration among the

Czechs and Slovaks. However, complete data are not available for the period of 1993–1995 as same as for 2012–2014.

It is very important to include in the research a full section concerning the patterns of immigration to the Czech Republic throughout the history so the roots of current migration flows could be explored. This section is particularly relevant for the research of immigration to the "new immigration countries" because not many studies has been translated to English language and the historical patterns of immigration to the Czech Republic are therefore nearly unavailable to the international community. On that account, English can be seen as an added value of this text.

Secondly, the objective is to examine what are the most significant determinants of immigration to the Czech Republic. A panel data regression model will be applied on a set of determinants derived from the international migration theory and empirical studies and adjusted for the specific conditions of the Eastern European country in order to explore their significance. Except for several academic theses presented by students of Czech universities in last years, no empirical study of this type has been done on an extended dataset of countries of origin and independent variables.

Thirdly, results will be compared to those from the Rotte and Vogler's (1998) research in order to confirm or disprove the general validity of their model. The initial hypothesis of this research is based on the presumption that there is a difference between the determinants driving international migration to traditional immigration countries and to new immigration countries, because some of the factors must play a role in favouring the Czech Republic – an economically weaker country with a relatively restrictive immigration policy and less immigrant stock – comparing to Western Europe.

I aim to present an empirical research that will contribute to the international migration theory with applying existing model to an industrialized "new immigration country" and concluding the theory confirming or theory infirming results.

Structure of the thesis

The content of this master's thesis will be structured into four main chapters, an introduction and a conclusion. Each chapter will be followed by a brief summary concluding the most important findings. The text is divided in this manner in order to

comprehensively answer the research questions that have been mentioned above and to keep a logical structure of the thoughts.

Firstly, I will focus on the theoretical framework, selecting particularly those theories that try to explain the immigration from developing to industrialized countries. Key determinants derived from the theoretical approaches will be concluded. Particular attention will be given also to the theories of international migration policies and to the approaches suitable to study the Czech immigration policy development.

Secondly, I will analyse the patterns of immigration to the Czech Republic in the suggested time period. Furthermore, a brief summary of the immigration history will be given. The Czech immigration policy development and typology of the laws that have been implemented will be overviewed. I will focus mainly on the asylum and overall migration in order to make the research comparable with the Rotte and Vogler's (1998) model. Besides the asylum and overall migration, all types of migration into the Czech Republic will be briefly analysed too, for example labour migration.

The third chapter will contain the methodology of later empirical research. As mentioned above, I arranged this chapter after the theoretical part because the used variables will be derived from the previous sections. In this part, the chosen dataset will be described and test statistics of the model will be presented. I will also outline the limits of the model in this chapter, although it is not possible to present a comprehensive overview of all statistical limitations in the range of this thesis.

A complete empirical analysis of the dataset will take place in the fourth chapter. I aim to use the method of regression analysis of the panel data which will be presented in detail in the third chapter, as suggested above. Furthermore, following subchapter will focus on the comparative analysis of my estimated results and the results presented by Rotte and Vogler (1998). The main objective of this part is to conclude whether the author's case study can be perceived as generally valid or the analysis of immigration to the Czech Republic can be used as the theory disproving case.

Terminology

Since there is no consensus among scholars and policymakers on how to define field terms, such as *migration* or *migrant*, in the theoretical literature or national legislations, every research focused on international migration has to specify the used terminology.

Defining the term *international migration* is particularly important in case of examining the migration in Eastern European, central Asian or ex-Yugoslavia countries, because the borders of nation-states have changed most recently and the definition of the "cross-border movement of people" does not have to be generally valid. Another example of a phenomenon causing problems in the definition is the migration inside of the European Union, particularly the Schengen Area, where the importance of the state borders declined in terms of common labour market and free movement of people. (King, 2012)

Another factor that differs significantly across definitions and perceptions of international migration is the time spent in the host country. The EU legal framework distinguishes between the touristic stay, short stay, long stay (temporary types of residence), permanent residence and naturalization (in other words acquired citizenship). The short stay can refer to seasonal or shuttle labour migration. Multiple entry of one migrant is also problematic factor in analysing international migration, since some statistical data (such as number of visa application) do not recognize it as a separate category of migration. "*Time-wise, the threshold for the statistical recording of migration (as opposed to other forms of mobility like tourism) is usually set at one year in the host country, but beyond this lie enormous variations: from migrants on one-year contracts to those staying for, say, five or ten years, to permanent settlers*." (King, 2012: 7) King's argument applies to the data used in this thesis. Nevertheless, it is important to note that some types of migrants are excluded from the recording and their cross-border movement is underreported (i. e. agricultural or construction sector labour migrants, tourists, etc.).

Sales (2007: 47) emphasizes the necessity of distinction between involuntary refugee migration and voluntary economic migration since it makes a significant difference in accessibility of several host countries. Cohen (1996: xi–xiv) and King (2002: 90–91; 2012: 136–138) offer further typologies of migration: internal and international; temporary and permanent; and regular and irregular international migration. (King, 2012)

Another significantly problematic issue in the field of international migration terminology is the definition of an *immigrant*. Each country uses different criteria for defining who can be classified into this category. King (2012) argues that "*naturalisation converts foreign-born immigrants into citizens and thus removes them*

from the migration count if citizenship is the criterion of measurement. Conversely, people born in the host country to immigrant parents – the so-called 'second generation' – can remain classified as non-citizens (…) *even though they themselves have not immigrated*." (King, 2012: 6) The naturalized migrants and the second generation of immigrants remain unimportant for this thesis unless they themselves migrate elsewhere.

There are many terms that have to be clarified for the purposes of this thesis. The most important of them are the definitions of migration related terms by the Ministry of Foreign Affairs which are specific particularly for immigration issues in the Czech Republic. *Asylum* is defined as a protective stay which is provided by the state to the third country national[1] or to the individual without nationality (asylum seeker) in relation to serious violation of his human rights in the country of residence if he meets the condition defined by the law[2]. The asylum seeker undergoes a monitored transfer from the country of residence to the host country, once his asylum application is approved. *Immigration* is defined as a spacial movement of groups and individuals and as a process of foreigners settling down in their host countries. *Immigrant* is defined as a foreigner (second and third country national, non-citizen of the Czech Republic) who came for a long-term stay (he obtained temporary or permanent residence permit). *Refugee* is a "third country national" who has a refugee status according to the Geneva Convention and who has a residence permit in the territory of one member state. In the Czech Republic system, a refugee is an individual with this status who has obtained the asylum from the state. (MZV, c2014)

Another terminological issue that needs to be clarified before the start of the actual analysis is the term *developing country*. There are several classifications of world countries in terms of the level of their development. The most widely used are the classifications of the World Bank, International Monetary Fund and United Nations Development Programme. It is important to note that the level of economic development in some countries does not have to be automatically consistent with the level of human development. However, Rotte and Vogler's (1998) model is based on the analysis of determinants of migration from developing countries to Germany. The purpose of their analysis was to bring better understanding of what drives the migration

[1] The term „second country national" in this case refers to the national of another state of the EU
[2] (Zákon o azylu č. 325/1999 Sb.)

between countries with significantly different levels of development, where development is seen in predominantly economic sense. The aim of this thesis is to follow this model and therefore the most useful classification for the analysis of determinants of migration to the Czech Republic appears to be the methodology of the International Monetary Fund (IMF).

According to the IMF, countries are classified as advanced economies, emerging and developing economies and transitional economies. There were 36 advanced economies in the world in 2014 and the Czech Republic also belongs in this group. The advanced economies as countries of origin or nationality of the immigrants residing in the Czech Republic are therefore excluded from the analysis. All other groups are included. The vast majority of immigrants residing in the Czech Republic come from transitional economies. It is therefore important to include some of the countries of Eastern Europe, the Balkans, the Caucus and South Eastern Asia to the analysis, even though some of them have reached the level of economic development which allows them to be classified as middle income countries. Some of the countries have also advanced during the analysed period and shifted among groups. In any case, they maintain their importance for understanding the migration to the Czech Republic and they will be included in the dataset.

1 Theoretical Framework

International migration became global issue with a significant impact on the world demographic structure particularly since the 1960s. Some countries such as Australia, Canada and the United States were receiving substantial number of immigrants also in periods prior to this decade and therefore academic attempts that seek to explain driving forces of the people's international movement have emerged earlier in the 1950s. (Bade, 2005)

Analyses of the key assumptions in the theoretical framework of international migration and results of empirical research which have appeared during the twentieth century are crucial for understanding the current system approaches and complex models. For similar purposes, the first comprehensive overview of various theories of international migration was presented by Massey et al. (1993), however, the universally accepted theory still does not exist in the field. As author claims, "*at present, there is no single, coherent theory of international migration, only a fragment set of theories that have developed largely in isolation from one another, sometimes but not always segmented by disciplinary boundaries*". (Massey, 1993: 432) Nevertheless, even this statement has been partially opposed by Bodvarsson and Van den Berg (2013): "*While there is a strong tendency in the literature to distinguish between domestic (internal) and international (external) migration, there is actually just one economic theory of migration. In mainstream economics, the theory of why people migrate is simply an application of the human capital model; migration is an investment in one's well-being*." (Bodvarsson and Van den Berg, 2013: 1)

Massey et al. (1993, 1998) and Schooler (1995) distinguish between two categories of international migration theories. Firstly, there are models which describe the initiation of international movement. According to these authors, the neoclassical economics, the new economics of migration, the dual labour market theory and the world system theory belong in this group. Secondly, there are theories which explain why the transnational movement of people persist across space and time. According to Massey (1993, 1998) and Schooler (1995), in this group, there belong the network theory, the institutional theory, the cumulative causation theory and the migration system theory. (Massey et al., 1993) It is not the purpose of this thesis to describe in detail all existing theories, however, a brief overview of the main arguments is

necessary for the derivation of variables from each theory and evaluating them in later chapters. I assume that all these theories are applicable to the immigration to the Czech Republic.

It is also important to emphasize the fact that many other authors do not agree with Massey's et al. (1993) categorization and there is no consensus on where to draw the line between theories of international migration or which of them should be considered as more important than the others. For instance, King (2012) suggests distinguishing between six types of international migration approaches: push-pull theory and the neoclassical approach; migration and development transitions; historical-structural and political economy models; systems and networks; the new economics of migration; and approaches based on the transnational turn in migration studies (King, 2012: 11–23). Bodvarsson and Van den Berg (2013) adopted an entirely new perspective on the theories classification while solely highlighting some important historical and modern models and contributions such as Smith's (1776), Ravenstein's (1885), Borjas' (1987, 1991), Sjaadstad's (1962), Clark's at al. (2007) and others. Current theorists (see Kritz and Zlotnik, 1992; Jennissen, 2007) also pointed out the necessity to incorporate single theories into the system approaches and create multidisciplinary models in order to explain different factors that drive international migration.

Considering the lack of consensus about how to categorize international migration theories, in this thesis I will structure my theoretical frameworks summary according to Massey at al. (1993, 1998), since it remains the most referenced suggestion of theories classification.

Besides the international migration theory, there is also a theoretical framework for immigration policies and politics. These theories aim to explain and predict the reaction of policy-makers and countries' adoption of migration laws. A simple approach that applies to all countries immigration policies is the concept of liberal-restrictive scale. In temporary politics, the discussion is directed mainly towards the character and number of received immigrants. Nevertheless, despite its membership in the European Union, in case of the Czech Republic's debate occurs controversially also the question whether immigration is even desirable. (Kušniráková a Čižinský, 2011)

As Kušniráková and Čižinský (2011) pointed out, there is also another particularity in terms of immigration policies typology – transparent and non-transparent. In this typology, the Czech politics is often characterized as uncoordinated, unstable, utilitarian and politically underestimated and dependent on the work of the bureaucracy and European laws instead of national policy-makers. (Kušniráková a Čižinský, 2011)

Theoretical perspectives explaining immigration policies can be factor-based (explaining what shapes the states' migration policy) or actor-based (explaining who has impact on the immigration policy). Firstly, the policies can be determined by the economic interests of the country or particular interest groups, such as employment issues, wage difference or accessibility to public and social services. Secondly, the significant impact on migration policy formation can have the perception of national identity which is seemed to be disrupted by both immigration of "second country nationals" and emigration of the citizens outside of the country.

The quotas on migrants from particular countries can be applied in order to keep the national identity in terms of culture, customs, language, history, law etc. (Zogata-Kusz, 2012: 6) Some countries applied special immigration or integration policies for immigrants from particular countries which are either desirable to come and contribute to the country's economy (i. e. high skilled workers) or are mostly undesirable (i. e. low skilled workers). Another approach to immigration policies is connected to human rights. Rights of an immigrant are defined and protected by international agreements and conventions and the policies implemented by states have to therefore respect certain common rules. Not less importantly, immigration policy can be an effective tool for foreign policy issues and international relations and it can be influenced by growing globalization, state institutions and bureaucracy and domestic political situation. (Zogata-Kusz, 2012: 6–15)

1.1 The initiation of international migration

Neoclassical economics is generally perceived as the oldest theory of international migration although it focuses mainly on explaining the process of economic growth. One of the first authors that used the neoclassical macro model in order to understand the driving forces of labour migration was Arthur W. Lewis (1954). Lewis' work belongs to the macro theoretical wing of the neoclassical economics

theories. From other researches that contributed to this approach I can mention for instance Ranis and Fei (1961), Harris and Todaro (1970) and Todaro (1976).

The basic argument of the macro theoretical wing of neoclassical economics is that the key driving forces of international migration are geographical differences between countries, particularly wage difference and differences in supply of and demand for labour. (Massey, 1993: 443) The theory also aims to explain human capital mobility: "*highly skilled workers are moving from capital-rich to capital-poor countries in order to reap high returns on their skills in a human capital-scarce environment, leading to a parallel movement of managers, technicians, and other skilled workers*". (Massey, 1993: 443)

Another neoclassical economic view on international migration has been presented under the micro theoretical wing by authors such as Sjaastad (1962), Todaro (1969, 1976, and 1989) and Todaro and Maruszko (1987). According the micro theoretical view, individual actors are making rational decision based on the cost-benefit analysis of migration. The theory has been summarized into a simple equation which considers: the probability of avoiding deportation from the area of destination; the probability of employment at the destination; earnings if employed at the place of destination; the probability of employment in the community of origin; earnings if employed in the community of origin; the discount factor; and the total sum of the costs of movement (including psychological costs). (Massey et al., 1993: 434–435) Potential migrant analyses all these factors and bases his decision where to migrate on the highest expected net monetary benefits (Borjas, 1990).

Jennissen (2004) argues that not less important economic theory that aims to explain driving forces of migration is **Keynesian theory**. In Keynesian view "*labour supply also depends on the nominal wage, not only on the real wage* (…) *and international migration removes unemployment differences rather than real wage differences.*" (Jennissen, 2004: 46)

Recently emerged **new economics of migration** have challenged many neoclassical statements. The key argument of the theory is that „*migration decisions are not made by isolated individual actors, but by larger units of related people – typically families or households – in which people act collectively not only to maximize expected income, but also to minimize risks and to loosen constraints associated with a variety of market failures, apart from those in the labour market.* " (Massey et al., 1993: 436).

Key theorists of this approach (see Stark and Levhari, 1982; Stark, 1984; Stark and Bloom, 1985; Katz and Stark, 1986; Lauby and Stark, 1988; Taylor, 1986; Stark, 1991) argue that unavailability of formal insurance institutions gives incentives to families to self-insure by sending workers abroad and to guarantee family income by remittances. (Massey et al., 1993: 436–440)

The third approach that belongs to the category of theories explaining initiation of international migration is the **dual labour market theory** which has been presented by Piore (1979). According to Piore (1979), cross-border movements are caused by the permanent demand for immigrant labour in developed countries, therefore by their pull factors. (Massey et al., 1993: 440) This is one of the most important differences between the neoclassical model and the new labour migration model while both assume that migration is driven by the push factors of immigrants' sending countries.

At this point, it is important to note that the current approaches to immigration policy-making in most developed countries in the world are based on the neoclassical economics, despite important empirical evidence that has been found in favour of the dual labour market theory.

The **relative deprivation theory** builds its arguments on the correlation between the level of economic inequality in immigrants' home countries and the migration. According to this theory, the relative deprivation encourages migrants to look for a higher income abroad. (Stark and Taylor, 1989)

The last theory categorized by Massey et al. (1993) into this group is the **world system theory** that builds on the arguments of Emmanuel Wallerstein (1974). The key determinant of human international movement is according to i. e. Portes and Walton (1981), Petras (1981), Castells (1989), Sassen (1988, 1991) or Morawska (1990) "*the structure of the world market that has developed and expanded since the sixteenth century*" (Massey et al., 1993: 444), particularly the adoption of capitalism in peripheral societies. Capitalist firms are seeking land, raw materials and cheap labour in developing countries and also continuously creating material and cultural links between the core and periphery. These links are underlying forces of international migration. (Massey et al., 1993)

1.2 The perpetuation of migration

Douglas Massey himself belongs together with Hugo (1981), Taylor (1986), Massey and García Espaňa (1987) and Gurak and Caces (1992) among the theorists that contributed many arguments to the **network theory**. The approach aims to explain the perpetuation of international migration by looking at the groups of migrants of the same origin and by analysing their importance for further immigration flows. Massey (1993) argues, that "*once the number of migrants reaches a critical threshold, the expansion of networks reduces the costs and risks of movement, which causes the probability of migration to rise, which causes additional movement, which further expands the networks, and so on*." (Massey, 1993: 448–449) The original causes of migration do not therefore have to persist for the perpetuation of people's cross-border movements.

Next one is the **institutional theory**, which is often forgotten in many studies. The key argument of institutionalism is that once there is the demand for international migration, private companies and non-governmental organization emerge in order to help the migrants to overcome immigration barriers. Some of them might be unreported, illegal or they might participate on underground market activities and human smuggling. However, these institutions are making the immigration possible no matter if the original causes of movement stay relevant or not. (Massey, 1993)

Except of two mentioned single theories, there are also other factors that influence the perpetuation of international migration. Massey (1990) and Taylor (1992) describe these factors as **cumulative causation**. They can be summarized as: "the distribution of income, the organization of agriculture, the distribution of land, culture, the regional distribution of human capital, and the social meaning of work". (Massey, 1993: 451) This theory sees the migration as a result of cumulative social processes that take place mainly in the migrants' country of origin.

Perpetuation of international migration is aimed to be explained also by the system approaches that will be summarized in the following sub-chapter. Before moving on to them, it is important to note that there is no single theory which would point out the causes of asylum migration such as human rights violation or displacement caused by a conflicting situation. I believe that these factors should be incorporated into the system approach since they undoubtedly have a significant impact on the migrants' decision to leave their country of origin. Some of the current empirical studies have,

however, considered some variables that reflect the political context. One of them is for instance Rotte and Vogler's model (1998) that will be used for the final estimation.

1.3 System approaches

Academics have realized that single theories have only limited explanatory power for such a complex process as international migration. This is the reason why many current theories present the attempts to incorporate single theories into system approaches (for their comprehensive summary see Bakewell, 2012). The system approach was presented for the first time by Maboguje (1970) in the context of analysing rural-urban migration.

There are two most important current theorists that follow this theory and point out its usefulness in explaining international migration. First, it is Kritz and Zlotnik (1992) who distinguished the historical, cultural, colonial, and technological linkages between countries which provide important connections making the international migration desirable and possible for many individuals. A migration system is situated within a particular context. Kritz and Zlotnik (1992) distinguish the social, political, demographic and economic context.

Secondly, Jennissen (2007) incorporates causalities between particular variables in the system approach emphasizing their importance for understanding fully the driving forces that lead to the decision to migrate. Jennissen's theory is temporary considered as the most advanced international migration approach.

Although the system theory has been considered to be the most scientific approach in studying international migration, it has its important limitations. Main problem is in the different significance of factors in the system and their different impact on the final decision to migrate. These differences are not reflected in these models, thus the significance of variables has to be empirically tested separately.

1.4 Derived variables

Based on the previous sub-chapter, the key determinants of international migration can be derived from each theory. The results of the derivation are summarized in Table 1. I suggest using the methodology described by Jennissen's causality chain system approach besides Rotte and Vogler's (1998) theoretical framework at this point, in order to update the model. Analysing more variables is furthermore useful for

understanding immigration to the "new immigration countries" which lack empirical testing.

Table 1 Key variables derived from international migration theories

Theory	Derived variable	Measurable indicator
Neoclassical economics: macro theory	Wage difference between countries	Log GNI p.c. ratio (home/Czech Republic)
Neoclassical economics: micro theory	Total sum of the costs of movement	Log distance to the Czech Republic
Keynesian theory	Difference in unemployment	Total unemployment as percentage of the total labour force ratio (home/Czech Republic)
New economics of migration	The certainty of sufficient household income in the home country	Total unemployment as percentage of the total labour force in the home country
Dual labour market theory	Shortages at the bottom of the labour market in the Czech Republic	Average years of education of labour force in the Czech Republic
	Unemployment in the Czech Republic	Total unemployment as percentage of the total labour force in the Czech Republic
Relative deprivation theory	The degree of (income) inequality in the home country	Average years of education in the home country
World system theory	Material and cultural linkages between countries	Log trade with the Czech Republic
Network theory	The size and quality of the network of the migrant population of the home country in the Czech Republic	Log migrant stock in the Czech Republic
Institutional theory	The number and quality of organisation that facilitate migration from the home country to the Czech Republic	Log migrant stock in the Czech Republic
Cumulative causation (Demographic context)	Accumulation of various social factors in the home country	Share of urban population in the home country
		Growth of labour force in the home country
		Log population in the home country
System approaches: Economic context	Economic characteristics of the home country	Log home GNP p.c.
		Log home GNP p.c. squared
System approaches: Political context	Political repression in the home country causing the asylum migration	Political rights, civil liberties
		Political terror scale
System approaches: Institutional context	Immigration policies and restrictive laws in the Czech Republic	

Author's derivation based on Jennissen (2007: 57) and Vogler and Rotte (1998: 31)

Two main problems appeared during the derivation process. Firstly, it is problematic to operationalize the total sum of movement costs which is the key determinant of migration in the micro theoretical wing of neoclassical economics. The main obstacle is the wide dataset of countries which will be tested in this thesis. I suggest using the logarithm of distance between the home country and the Czech Republic as the representation of main costs paid by the migrant, even though there are other important social and opportunity costs.

Secondly, it is also problematic to measure the degree of income inequality and shortages at the bottom of the labour market derived from the dual labour market theory. In this case I use the indicator suggested by Jennissen (2007) – average years of education.

1.5 Summary of the chapter

There are many different approaches to studying the international migration. The overview of the most important theories presented in this chapter is far from being comprehensive because it obviously cannot consider all available models and contributions in this field. However, a brief summary of the theories is necessary and useful for understanding the variables that will be analysed in the empirical part of this thesis.

In this chapter, eleven different theories were presented and key determinants were derived from them. For each determinant, I assigned measurable indicators (for results see Table 1). Most of the indicators correspond to the Rotte and Vogler's model or have been already derived by Jennissen (2007) in his causality chain in the system approach. I suggest testing all measurable indicators inferred by all these scholars and interconnect the older Rotte and Vogler's model with the current system approaches.

In the beginning of this chapter, I have also introduced theories of migration policies, particularly those with clear implications for the development of the Czech immigration policy. Understanding of the theoretical framework of both international migration itself and migration policies makes an important basis for analysing the determinants that drive migration from developing to developed countries.

2 Immigration to the Czech Republic

The main objective of this chapter is to analyse national immigration patterns and immigration policies adopted by the Czech Republic. I will focus particularly on the period from 1995 to 2012. For the purpose of this thesis, it is however also important to briefly summarize the pre-1993 immigration flows. There are no complete statistical data available for the periods between 1993 and 1995 and between 2012 and 2014. In order to have a balanced dataset, the period 1995–2012 was chosen.

As it has been already mentioned in the introduction chapter, I consider the pre-1993 section particularly important as a contribution to international migration literature, because many of the Czech bibliographical sources focused on the Czechoslovakian migration have never been translated to English. They therefore stayed aside of international academic research. Due to the inaccessibility of qualitative and quantitative studies, immigration to Eastern Europe is largely unexplored. Another reason for including the historical overview is also the fact that the presence of "second countries nationals", indicated in the dataset as *migrant stock*, often provides important social links for future migrants and can be also regarded as one of the important determinants of immigration.

2.1 Immigration patterns prior to 1993

The period prior to the Velvet Revolution in the Czech Republic[3] is peculiar by emigration outflows of Czech citizens outside of the country and almost zero immigration inflows. A national immigration policy therefore almost did not exist. However, there are two significant groups of immigrants who came to the Czech Republic before 1989: the Slovakian and Vietnamese nationals, from which the later are particularly important for this research as they came from the country not classified as advanced economy by the International Monetary Fund.

Even though the immigration flows from these two countries are marginal in comparison to temporary patterns, they are crucial for understanding historical links between countries of origin and the Czech Republic, and the role of existing diasporas

[3] In this sub-chapter, the Czech Republic is understood as the territory of the temporary Czech Republic during the period prior to 1989. For that reason, the Slovakian immigration into the territory will be seen as cross-border migration even though it was not this kind of migration during the existence of the Czechoslovakian Socialistic Republic.

that might determine the future migration. (Baršová and Barša, 2005) Vietnam, since 2008 considered being a middle income country, has belonged to the group of low income developing countries according to the World Bank classification for a vast majority of the time period analysed in this thesis.

Despite its long history, Vietnamese immigration has never been an object of a strong academic interest and there are still many information gaps in this issue. One of the few scholars dedicated to explore the roots of Vietnamese immigration is Stanislav Brouček. The author has particularly completed an extensive research on temporary problems in adaptation of the Vietnamese ethnic group in the Czech Republic.

According to Brouček (1993), the Czech territory has faced several waves of Vietnamese immigration since 1953. In this year, an agreement between the Czechoslovakian Socialistic Republic and the Vietnamese Democratic Republic was launched and the Czech Republic accepted a number of war affected refugees. One hundred Vietnamese children were placed in Chrastava, a small Czech town, to live with local families and to complete the primary school there. These children are considered to be the first generation of Vietnamese immigrants in the country. (Brouček, 2003: 10)

In 1973, important changes occurred regarding Vietnamese immigration to Czechoslovakia and other countries of the former socialistic bloc. A delegation from Vietnam came for an official visit to Czechoslovakia in order to launch an agreement about immigration of other ten to twelve thousand Vietnamese nationals for the purpose of professional training. The Vietnamese officials had also visited other Eastern European countries, such as Poland, for the same reason. The intergovernmental negotiations resulted in the agreement, in which the Czechoslovakian Socialistic Republic committed to arrange educational programmes for 5,800 – 6,000 immigrants. These programs consisted of an intensive language preparation and a professional training. Most of these immigrants were young men between 18–25 years of age from Northern Vietnam. (Brouček, 2003: 10-13)

In 1979, another agreement was signed and 8,700 Vietnamese students and 23,000 interns were placed in Czech enterprises and educational institutions. Since 1980, Vietnamese workers were being employed by the Czech industrial sector. (Baršová a Barša, 2005: 218)

According to Brouček (2003), there are three stages of Vietnamese immigration to the Czech Republic: stage of bilateral agreements; liberal stage; and stage of a new policy towards immigrants[4]. The liberal stage was specific by a relative freedom regarding the residence permit acquisition and the permission to start private economic activities in the country. The stage of a new policy towards immigrants is, on the contrary, a period in which the entry law was tightened and immigration policy became significantly restrictive. (Brouček, 2003: 13)

Besides Vietnamese nationals, the Czechoslovakian Socialistic Republic also accepted smaller inflows of "second country nationals", as being referred back then. While we currently use this term for all citizens of the European Union, and the immigrants from outside of the EU are regarded as "third country nationals", there was no such distinction in the Czech legislation in the period prior to 2004. The term "second country nationals" therefore referred to citizens of all foreign countries. Agreements on asylum or employment were signed with Greece, Poland, Cuba, Mongolia, Angola, North Korea, Laos and Cyprus. At the end of the year 1990, there were 23,113 Vietnamese, 3,790 Polish, 274 Mongolian, 101 Cuban and 142 Angolan citizens present in the Czech Republic. (Barša, 2005: 219)

International agreements signed in the framework of the socialistic bilateral cooperation and assistance had terminated in 1989, and after the fall of the socialistic bloc, the majority of foreign workers returned back to their country of origin. As a result of these returns, on 30 April 1993, there were only 1,110 Vietnamese, 210 Polish and 10 Angolan workers still continuing their work assigned by the agreements. However, especially the Vietnamese workers quickly recognized new economic opportunities and became the base of a new immigration wave into the Czech Republic in post-1993 period.

2.2 Immigration patterns after 1993

Pavlík and Kučera (2002, 69–70) distinguish between three phases of Czech post-1989 immigration development throughout the 1990s.

The first phase was, according to these authors, above all related to the political changes that occurred in 1989. It is characteristic by massive returns of foreign nationals working in the Czech Republic under the socialistic agreements back to their countries

[4] Namely Zákon č. 326/1999 Sb. O pobytu cizinců

of origin and by increasing international migration from Slovakia to the Czech Republic that has been previously regarded as domestic migration. This period lasted from 1989 to 1993.

The second phase started in 1993 and continued to 1997. This period is primarily specific by decreased immigration from Slovakia and increased immigration flows from other countries. The main feature of the third phase is an overall decline in the intensity of foreign migration. (Pavlík and Kučera, 2002: 69-70)

In spite of this conclusion, Barša (2005) argues that this picture of the Czech immigration during the period of the second phase is not complete because the data contain only permanent residents. The immigrants who held a long-term residence permit (visa for a period longer than 90 days) are not included in this statistics. The police records of residence permits held by foreigner country nationals contain evidence of stronger dynamics in the Czech immigration. In 1993, there were approximately 50,000 foreign country nationals holding the residence permit present in the Czech Republic. Approximately 20,000 of them held a long-term residence permit and 30,000 held a permanent residence permit. (Barša, 2005)

By 2004, the number of immigrants with a residence permit increased up to 254,294 people, from which 78,263 citizens of Ukraine were the largest group. Besides them, there were also 47,352 citizens of Slovakia; 34,179 citizens of Vietnam; 16,264 citizens of Poland; and 14,472 citizens of Russia. To sum these figures up, 154,827 foreign country nationals resided in the Czech Republic either with a long-term visa, a long-term residence permit, or a short-term stay visa for citizens of the EU. (Barša, 2005)

At that time, the permanent residence was given to 99,467 foreigners mainly for the purpose of family reunification (67 %). The average annual increase in foreign population between 1990 and 2002 was 18 %. This figure refers, according to Barša's classification, to the group of countries with progressive immigration dynamics and the Czech Republic during this period therefore belonged in this category. However, the percentage of the foreign population is still relatively low comparing to Western Europe. (Barša, 2005)

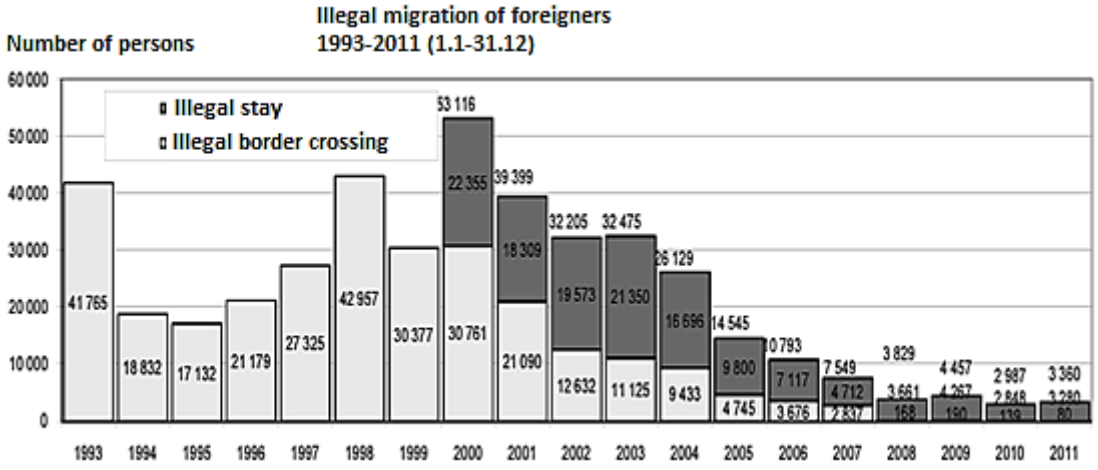
Besides the official legal immigration flows, there is a problematic issue related to the illegal immigration to the Czech Republic and surrounding states. Dušan

Drbohlav (2003) estimated that there were around 300,000 illegal workers and their family members present in the country in 2000. (Drbohlav, 2003: 16)

Hofirek and Nekorjak (2008) introduced an interesting argument regarding the reasons for employing immigrants in particular. The authors claim that the motivation of entrepreneurs to hire foreigners is connected to the economic cycles. The short-term deficiency and surplus in production cannot be fully covered by the domestic labour, and thus there will be a lack of workers in certain sectors during certain periods even in the case of low unemployment rate. According to Hofirek and Nekorjak, there often is a number of work placements where the priority is given to the immigrants in capitalist economies. (Hofírek, Nekorjak, 2008)

The Czech National Statistical Office database contains data of reported illegal immigration. However, it is important to note that larger numbers of illegal immigrants are unreported. It is possible to see three peaks of illegal immigration during the 1990s – the years of 1993, 1998 and 2000. After 2000, the reported illegal immigration decreased significantly. Current numbers of reported illegal immigrant are marginal.

Chart 1 Illegal migration of foreigners in the Czech Republic 1993-2011



Source: ČSÚ, c2013 (translated)

Since 1993, the largest numbers of illegal immigrants come traditionally from the countries of Eastern Europe, including Ukraine, Russia, Moldova, Poland and Romania, and also from Vietnam, China, Sri Lanka, Syria, Turkey and India. (ČSÚ)

2.3 Immigration policies

The first classification of the post-1989 immigration policies was done by Barša and Baršová (2005, 2006). These authors have distinguished three main time periods in the development of the Czech immigration policy: 1990–1995, 1996–1999 and 2000–present (which means 2005). (Barša and Baršová, 2005)

This classification became a subject of further extensions and now serves as a generally accepted concept. In this thesis, I will use the extension presented by Kusniráková and Čižinský (2011), in which the post-1989 period is divided into five separate periods. Their descriptions are then based on the liberal-restrictive policies scale which refers to the level of tightness of the immigration policy.

It is necessary to note that this classification has been criticised for its inaccuracy and confusion in terms of a too narrow scale. The suggested questions to be asked while working with this scale of migration policies are following: Is there an absolutely free entry in case of liberal policies? If not, how is it shown on the scale? (Kušniráková a Čižinský 2011) The answers are clear: No country in the world has perfectly liberal immigration policies and the manifestation of such a feature on the liberal-restrictive scale might be negligible. It is important to be aware of these imperfections. Nevertheless, there is no other generally accepted approach to the classification of immigration policies in the Czech academic sphere. I will therefore use the extended Barša's (2005, 2006) approach for the purposes of this thesis.

2.3.1 Liberal stage (1990–1996)

Laissez faire approach is typical for the first stage of the Czech immigration policy. This approach to migration is most likely a sign of the liberal mood in the post-revolutionary politics. Almost no restrictions occur in terms of number of immigrants according to the purpose of their arrival. (Drbohlav, 2003: 218) The new law on issuing residence permits for foreign citizens in the country was enforced since September 1992. This regulation has however not imposed any limitations of legal migration but rather has tightened the legal measures against the illegal migration. (Barša a Baršová, 2005: 221–222)

The crucial element in this period was a high throughput of the immigration control mechanism. The way to pass through the immigration control was simplified by

permitting the immigrants to request a long-term or a permanent residence permit inside the Czech territory (not only at the Czech embassies located in foreign countries as it had been so far). The foreign country national was therefore allowed to arrive with a touristic visa and he could have legalized his stay later in case of work opportunity. This policy had its origin in the law from 1965. It shortly became apparent that in the early 1990s the Czech Republic was significantly more attractive for potential immigrants then it had been before, above all in 1965.

Despite the relatively liberal immigration policy and high immigration inflows, Barša and Baršová (2005) argue for regarding the insufficient integration of foreign migrants to the Czech society as a possible obstruction to later immigration. According to these authors, there was relatively high tolerance but low acceptance of large numbers of immigrants. Although they could have crossed the border legally, there was a very limited legal way how to reside, work and naturalize in the country (with exception of the marriage with the Czech citizen). (Barša and Baršová, 2005: 222)

Laws concerning asylum seekers, refugees and people coming from the countries affected by armed conflict have been adopted in this period (most importantly the Act n. 498/1990 Sb.)

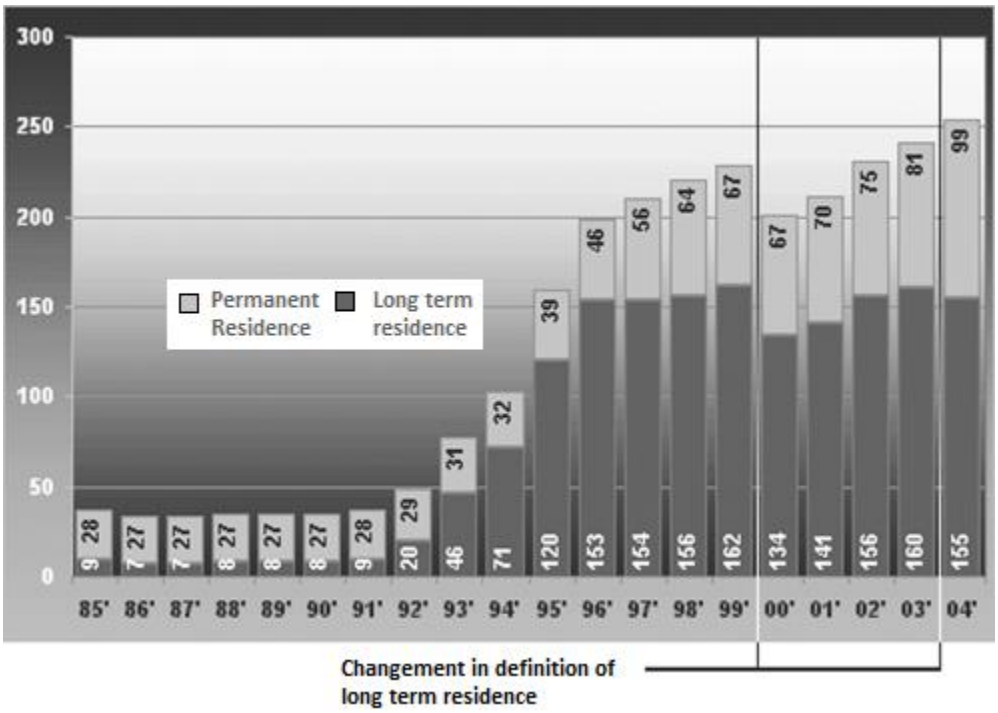
Another important pattern in this period has been the return migration of people with Czech origin (the first or second generation of Czech emigrants, so called *repatriates*). This type of immigration can be divided into two main groups: firstly, a group consisting of the immigrants who had left the country during the communist era and resided in the Western developed countries; and secondly, the members of older Czech communities which reside in the countries of Eastern Europe, the Balkans and Central Asia.

The question of the ethics of ethnical selectivity in immigration policies was raised due to the problem of return migration. To resolve this ethical problem, most of the repatriates who lost the Czech citizenship had to be qualified as "*being threatened*" in their country of residence in order to obtain the residence permit in the Czech Republic. As a result, some of them were forced to stay in the country illegally for a certain period of time. (Barša and Baršová, 2005)

Immigration policy and its effectiveness was not the priority in the post–1989 politics. The country just gained attractiveness for potential immigrants in terms of

economic and political conditions and immigration was still relatively marginal, politically overlooked and economically beneficial. The number of immigrants was increasing too slowly to catch attention of both the public and politicians. The more apparent increase in the number of immigrants at the end of this period caused a transformation of immigration policy. Chart 2 gives evidence to this argument.

Chart 2 Number of foreigners in the Czech Rep. (31th December) in thousands



Source: Hůle (2005), translated

2.3.2 Restrictive stage (1996–1999)

The rapid increase in number of immigrants in 1995 caused severe tightening of legal immigration regulations. Moreover, growing unemployment and negative impacts of illegal immigration also had a significant impact on the restrictions in the long term. Besides these crucial factors, stricter immigration policies were also imposed due to the external pressure of the European Union to adopt the generalized system of Schengen visas. (Barša a Baršová, 2005: 223)

Drbohlav (1998) presented a controversial argument in this issue, claiming that the Czech immigration policy has actually not been made by the Czech politicians but by the West European pressure on adaptation to the European standards. (Drbohlav, 1998).

Due to these factors, two important laws were adopted at the end of this period. Firstly, the Act n. 326/1999 Sb. brought immigration nearly to a temporary standstill. However, the policy-makers also decided to approve one liberal change in the approach to immigration. The former migration law distinguished between the long-term residence (granted in relation to a work permit or self-employment which did not lead to a permanent settlement) and the permanent residence (granted in case of marriage with a Czech citizen or long-term presence of relatives in the country; or for humanitarian reasons). The permanent residence permit was required for a citizenship application. Since this distinction was revoked by the Act n. 326/1999 Sb., law made it impossible for these workers to obtain the Czech citizenship. (Barša and Baršová, 2005: 224)

The Act n. 326/1999 Sb. enabled the workers to apply for a permanent residence after ten years of stay. This change made it possible for immigrants to become Czech citizens in the future. (Barša and Baršová, 2005: 224)

Not less importantly, the new law on asylum was adopted and forced in 2000. (Barša and Baršová, 2005: 224)

2.3.3 Stage of consolidation (2000–2004)

According to Barša and Baršová (2005), there were three main features of the third stage of the Czech immigration policies development.

Firstly, the policy reflected for the first time also the internal immigration patterns and issues. It has been clearly formulated in relation to both immigration as such and integration of immigrants. Secondly, however, the transformations required by the European Union have still had the priority in terms of implementation. Thirdly, the more complex and conceptual approaches appeared in this matter. It became increasingly more evident that the independent and effective domestic policy reflecting domestic problems should be implemented in addition to the harmonization attempts. (Barša and Baršová, 2005: 224)

In 2003, the official strategy described in the document *The Principles of the Government Policy in the Field of Migration of Foreigners* was adopted. The strategy emphasized three main goals of the Czech immigration policy: to restrict illegal immigration; to support beneficial types of immigration; and to offer a resolution and prevention to the consequences of international humanitarian crises. This general approach was followed by the more concrete Action plans describing detailed ways to achieve these goals. (Barša and Baršová, 2005: 224)

2.3.4 Neoliberal stage (2005–2007 or 2008)

The following period traced the legacy of the initial stages of development in the field of Czech immigration policy. The period of restrictive policies were therefore followed by a liberal stage and vice versa.

Low unemployment rate, relatively high economic growth, shortage of labour force and immigration of low skilled labour is typical for the period between 2005 and 2008. In 2007, the policies started to tighten again due to an increasing number of immigrants arriving to the country accompanied by rising share of illegal migrants. (Kušniráková and Čižinský, 2011: 498)

2.3.5 Neorestrictive stage (2008 – present)

Just as the previous stage, the neorestrictive period traces the legacy of the 1996 – 1999 restrictive stage. Politicians and policy-makers at this stage typically used populist rhetoric and arguments of protecting domestic population and labour market against foreigner citizens in order to justify restrictive steps such as reduction of numbers of immigrants and tightening border control. The neorestrictivism appears to be a reaction to the loss of jobs of certain sector's workers due to the economic crisis. (Kušniráková and Čižinský, 2011: 498)

2.4 Characteristics of the Czech Rep. in relation to migration

In 2012 (the last year analysed in the empirical part of this thesis), around 438,000 foreigners with long-term and permanent residence permits lived in the Czech

Republic. Two thirds of these foreigners were citizens of Slovakia, Ukraine and Vietnam. In the second part of the analysed period, there was a significant increase in the presence of other countries' nationals. (ČSÚ, c2013) In the considered period (1995–2012), the inflow of immigrants was still increasing.

The number of immigrants is now four times higher than in 1993, even though the immigration policy is currently described as restrictive. Nevertheless, in comparison to the Western European countries, immigration to the Czech Republic and the Central and Eastern European countries is in general still relatively marginal.

Despite that, the discussion on immigration and the questions about its further restrictions are currently prioritized political topics. The growing political interest in migration policies in the country, just as in the whole European Union, makes the matter of this thesis very relevant and important for the field of international migration. Deeper understanding of the driving forces of immigration into the Czech Republic is pivotal for adoption of suitable immigration policies based on immigration features, trends and impacts instead of alternating groundless enthusiasm and fear connected to immigration. Based on the Western European countries experience, the migration inflows from developing countries are expected to grow and better understanding of the determinants that influence this phenomenon is necessary. It can lead to avoiding ineffective restriction measures as consequences of populist rhetoric against international migration.

Kušniráková and Čižinský (2011) raise an important point concerning the rapid decline of number of residing foreigners in the Czech Republic in 2008. The loss of work places available for foreigners was apparent but not universal. Among the most represented nationalities, the Ukrainian workers were the most affected. On the other hand, the crisis did not hit the Slovakian workers by the same force. The authors argue that the crisis was rather legal than economic. The key role in tightening legal measures against certain foreign country nationals played the Czech Ministry of Foreign Affairs.

The derivation of institutional variables for the analysis is summarized in Table 2. The sheet is also a fragment of Table 1 presented in the introductory chapter.

Table 2 Derived institutional variables

Theory	Derived variable	Measurable indicator
System approaches: Institutional context	Immigration policies and restrictive laws in the Czech Republic	Act 326/1999 Sb Liberal-restrictive scale

Author's derivation based on Jennissen (2007: 57) and Vogler and Rotte (1998: 31)

Czech political parties have not included the immigration policies into their political programmes since the beginning of 1990s. On the contrary, politicians began to be interested in this topic simultaneously with increasing number of foreign nationals residing in the country. Since 2010, the vast majority of the principal Czech political parties have been considering the immigration policy regularly in their statements. (Koudelka, 2014)

ČSSD, ODS and TOP 09 are generally in favour of liberalization of immigration policies although their representatives have emphasized security threats connected to the unregulated immigration on several occasions. KSČM, LIDEM and VV have not concretized their opinion on this matter. However, many cases of violating migrant rights in the Czech Republic, particularly in issues connected to the labour market, were reported and became a subject of public debate. The rights of a foreign country's national residing in the Czech territory have been thematised also by SZ. On the contrary, ÚPD has been presented as strictly against the liberalization of immigration policies. (Koudelka, 2014)

The European discussion regarding immigration changed its directions significantly after the terroristic attacks in France in January 2015. Besides France, other Western European countries, such as Belgium and United Kingdom, are also facing similar security threats. This situation has empowered the anti-migration movements across Europe. Despite relatively low number of immigrants in the Czech Republic and their generally low impact on levels of criminality, the country has not been an exception.

This current EU's tendency is contradictory to the outcomes of the previous European debate which reacted to the situation of illegal migrants arriving to the southern member states of the EU. After many severe tragedies related to migrants' deaths in coastal zones of Italy, Spain and Greece and controversial reactions of the

national coastguards, the countries were under pressure to liberalize their immigration policies and increase the number of accepted asylum seekers.

2.5 Summary of the chapter

This chapter provides a brief overview of overall Czech immigration patterns and adopted policies. The pre-1989 immigration patterns showed entirely different results then the current data. Before the end of the socialist era, emigration prevailed over immigration in the Czechoslovakian Socialistic Republic and therefore the national immigration policy was almost non-existent. After the Velvet Revolution, the country was increasingly becoming more attractive for foreigners, particularly as a destination of temporary work. Local shortage of labour made the immigration of unskilled workers desirable and beneficial for the country. However, growing restrictiveness of policies at the end of each liberal period supports the evidence of unsure status of the people who have migrated to the Czech Republic.

Regarding the immigration policies, it is possible to conclude two major implications for purposes of the following analysis. Firstly, the Czech immigration policy development since 1993 can be classified into five stages based on the liberal-restrictive scale. Because it would be very difficult and arbitrary to divide the scale to smaller sections, the liberal or restrictive nature of policies will be perceived as applicable to all five stages. The period between 2000 and 2005 will be regarded as restrictive era due to the existence of the immigration Law[5] forced in 2000 which significantly reduced the immigration into the country.

The implementation of this Law is another major implication of the analysis. Vogler and Rotte's model contains the immigration policy as one of the considered categorical variables for the analysis. In case of the Czech Republic, the Act 326/1999 Sb. is a crucial tool for immigration restrictions and will be included in our model as well. The Law has, except other changes, also redefined the long-term stay which significantly affected the data of reported number of immigrants.

[5] Act 326/1999 Sb

3 Methodology

3.1 Empirical evidence of international migration

3.1.1 Migration and trade

Most of empirical studies on determinants of migration conclude that the economic divergence and the wage difference between countries are the main reasons for people's long term or permanent cross-border resettlement. One of the reasons for this widespread belief is the tradition of neoclassical economy as the main theoretical source for international migration research. Neoclassical economy emphasizes economic determinants of migrations and analyses rational cost and benefits of each individual migrant. The impact of differences in level of development between countries on international migration can be analysed in several ways.

Trade liberalization is generally considered to be the main instrument for acceleration of economic growth in developing countries. Trade restrictions and protectionist policies, particularly those concerning labour intensive goods in which developing countries have absolute and comparative advantages, are therefore, according to various studies, an important incentive to migration. (Rotte and Vogler, 1988: 12) Many scholars provided research on the effects of trade liberalization on migration particularly through the framework of Heckscher-Ohlin model and it is therefore important to understand the use of the model and to be aware of the empirical research results. (Ethier, 1986)

"*The Heckscher-Ohlin model which is coupled with the assumptions of the North as being abundant in capital and the South as being abundant in labor, provides a useful analytical framework for explaining the North-South trade*." (Nassar and Ghoneim, 1998: np) Markusen (1983) came with an examination of relations between migration and trade which has shown that "*trade and migration can be complements if trade has causes other than different factor supplies, e. g. different technologies or scale effects in production.*" (Rotte and Vogler, 1988: 12)

Another important author who, as one of the first scholars, examined this relation within the framework of Heckscher-Ohlin model is Mundell (1957). Mundell

(1957) concluded that international trade and factor movement are substitutes. He claimed that an increase in trade barriers reduces trade and raises migration and, simultaneously, an increase in migration barriers reduces migration and raises trade. (Schiff, 2006: 2).

Taking into account that migration generally seems to be driven by an alleged improvement in living conditions, I consider the relation between trade and migration rather indirect than direct. I argue that it is important to first of all examine what is the relationship between trade and development and, more importantly, between economic growth and increase in wages. Results of empirical analyses which try to confirm these causalities are not always promising. Nevertheless, empirical testing of these issues is not an objective of this thesis and the wage difference will be therefore measured traditionally, as the ratio of GNI per capita in the home country and GNI per capita in the Czech Republic, and trade of home country with the Czech Republic. However, I regard the awareness of this problematic as important. The variable concerning trade will be included especially for the purpose of considering economic relations between countries, not necessarily in the framework of Heckscher-Ohlin model.

Table 3 Foreign trade with priority countries in 2001

Country	Export		Import	
	mil. CZK	share in %	mil. CZK	share in %
Total	**272,966**	**100.0**	**626,303**	**100.0**
Brazil	7,741	2.7	6,229	1.0
China	29,504	10.8	334,219	53.4
Egypt	3,475	1.3	1,349	0.2
India	15,080	5.5	11,516	1.8
Kazakhstan	3,777	1.4	11,450	1.8
Mexico	6,070	2.2	7,216	1.1
Russia	92,640	33.9	142,898	22.8
Serbia	9,600	3.5	4,668	0.7
Turkey	23,981	8.8	22,995	3.7
Ukraine	24,435	9.0	24,770	4.0
USA	55,861	20.5	52,328	8.4
Viet Nam	802	0.3	6,665	1.1

CzechTrade, 2012 (translated)

If we look at the Czech Republic's economic characteristics, we can see that the majority of trade partners are countries from the European Union, particularly from Western Europe. The Czech Republic's trade should be therefore rather an incentive for emigration. However, the country has a list of priority countries and trade partners from outside the EU which contains some of the developing countries that will be included in the dataset.

As can be seen in the table above, regarding developing trade relations, the Czech Republic gives priority to countries such as Brazil, China, Egypt, India, Kazakhstan, Mexico, Russia, Serbia, Turkey, Ukraine, USA and Vietnam. In 2011, international trade with these countries reached 899.3 billion CZK with the annual increase of 16.2 %. (CzechTrade, 2012)

Table 4 Foreign trade with other countries outside of the EU in 2001

Country	Export		Import	
	mil. CZK	share in %	mil. CZK	share in %
Total	**159,759**	**100.0**	**233,498**	**100.0**
Azerbaijan	3,338	2.1	30,548	13.1
Croatia	9,133	5.7	3,245	1.4
Israel	11,034	6.9	5,091	2.2
Japan	10,185	6.4	54,864	23.5
South Africa	9,566	6.0	7,098	3.0
South Korea	7,873	4.9	47,798	20.5
Singapore	3,215	2.0	16,179	6.9
UAE	11,277	7.1	734	0.3
Switzerland	48,570	30.4	28,484	12.2
Thailand	2,397	1.5	230809	10.2
Other countries of interest outside the EU*	43,171	27.0	15,648	6.7

*Algeria, Argentina, Australia, Belarus, Georgia, Hong Kong, Chile, Iraq, Canada, Libya, Maroco, Moldova, Saudi Arabia, Uzbekistan

CzechTrade, 2012 (translated)

There are also 24 other countries which are in the centre of economic interest of the Czech Republic. In 2011, the biggest volume of international trade was subscribed

to Switzerland, Japan, South Korea, Azerbaijan, Thailand, Singapore, South Africa, Israel, Croatia and United Arab Emirates. The total volume of trade with these countries reached the value over 334,438 million CZK. The other 14 countries in this group (Algeria, Argentina, Australia, Belarus, Georgia, Hong Kong, Chile, Iraq, Canada, Libya, Morocco, Moldova, Saudi Arabia and Uzbekistan) have shown significantly lower volume of international trade in 2011, concretely 58,819 million CZK. (CzechTrade, 2012)

3.1.2 Migration and home country risks

Many studies have shown and proven that international migration is largely determined by the push factors in the country of residence. The push factors can be defined as a spectrum of various risks the potential migrant is exposed to during his life. These are the factors that affect mainly the decision-making process of an individual or a family whether to migrate or not.

The risks can be classified into several groups. First group is the **economic risks push factors** that are once again partially connected to the Heckscher-Ohlin model. However, the risk factors are exclusively associated with the home country characteristics, and I there consider more important to include variables such as the ratio of the unemployment rate in the home country and the unemployment rate in the host country, high population growth in the home country and low wages in the home country.

Probably the most promising recent empirical evidence of the importance of differences in the levels of income was found by Gilpin at al. (2006). The author examined the immigration into the UK from the Eastern European countries and found that people from countries with lower GDP per capita (such as Lithuania) are more likely to migrate to the UK than people from countries with higher GDP per capita (such as Slovenia). (Gilpin at al., 2006) Similar results concerning the effect of GDP per capita and the unemployment rate were concluded by Pedersen et al. (2004) who examined the migration flows into OECD countries in the 1990s. (Blanchflower and Shadforth, 2009)

Second and similarly important group comprises the **political risks factors**. Many indicators could be included in this group and some of them have been

surprisingly forgotten by the scholars to a considerable extent (i. e. external and internal conflict). A large dataset of about 111 countries based on the data from International Country Risk Guide (ICRG) 2009 was examined by Dimant, Krieger and Meierrieks (2013) in order to explore the effects of corruption on migration in the period of 1985–2000. Authors concluded that „*corruption especially drives skilled migration, while its effect on average migration is less pronounced and not statistically robust. Our main finding is consistent with the hypothesis that corruption lowers the returns to education and consequently matters most to the calculus of (prospective) highly skilled migrants. Corruption control may therefore be an important policy tool to rein the brain drain, particularly when this brain drain is associated with predominantly poor development outcomes*." (Dimant, Krieger and Meierrieks, 2013: 9)

Dimant, Krieger and Maierrieks (2013) pointed out the fact, that country-year panel data are often associated with the problems of autocorrelation, heteroskedasticity and cross-sectional dependence. They run series of pooled OLS and fixed-effects regressions in order to get to their conclusions. (Dimant, Krieger and Meierrieks, 2013: 6)

Migration based on residence country push risk factors is also associated with asylum migration, refugees and internally displaced people. Interestingly, the direct economic risks seem not to be related to the labour migration, because people under the direct economic risks are usually facing lack of resources to invest in the travel of a family member. Migration is therefore more a type of *prevention* of household economic risks then the *solution* to it. (DaVanzo, 1978)

The asylum migration to the European Union has a clearer explanation in the literature and international organizations reports, since there are clear eligibility criteria and asylum quotas among the member states. The rejections of asylum applications may drive a significant portion of illegal and clandestine migration or other illegal activities, such as human trafficking and human smuggling. (OECD, 1999)

Third and last group of the risk factors are **humanitarian and natural disasters**. Even through that comparing to other types of migration the cross-border resettlement in case of real humanitarian or natural emergency is relatively marginal due to lack of resources to the migration, there has been several empirical studies which

provided evidence of importance of this type of risk push factors. The migrants associated with this type of migration are often called *crisis migrants*.

Drabo and Mbaye (2011) have for example studied the effects of climate change and natural disaster on migration from developing countries. The authors found considerable strength of the relation between the environmental degradation and migration. Besides that, the authors claim that "*main contribution of this paper is to show that natural disasters due to climate change exacerbate the brain drain in developing countries characterized by the migration of highly skilled people just when those countries are at their most vulnerable and need greater support from skilled workers to deal with the damage associated with natural disasters. The paper also shows that this effect varies depending on geographical location*." (Drabo and Mbaye, 2011: 1)

Brian Kelly and Anita Jawadurovna Wadud (2011) emphasized the importance for international framework and response mechanisms to the crises migration. On the example of Libya civil war starting in February 2011 and the following displacement and evacuation of Asian workers, they pointed out the lack of efficiency of existing coordination mechanisms build by international organizations specialized in international migration, such as the UN or IOM. (Kelly and Wadud, 2011)

3.1.3 Historical evidence

Another way to investigate empirical evidence of determinants of international migration is the historical approach. By this approach, authors are trying to find parallels with today's migration patterns in the past. One of the most explored historical movements of people is the European migration to the New World in the second half of the 19th century. (Rotte and Vogler, 1998: 9)

Timothy J. Hatton and Jeffrey G. Williamson produced several papers regarding this topic. The most relevant for this overview is the article *What Drove the Mass Migration from Europe in the Late Nineteenth Century?* published in 1992. Authors concluded that the migration was driven mainly by the changes caused by demographic transition, particularly by a fertility boom and a decline in infant mortality in late nineteenth century Europe. Besides that, another reason to leave the continent was a

relative labour abundance in the home countries and a relative labour scarcity in the host territory. The decline of emigration was, on the contrary, caused by the increase in real wages in home countries. (Hatton and Williamson, 1992)

Douglas S. Massey (1988) unlike Hatton and Williamson argues that the emigration from Europe to the New World in this period was caused mainly by the industrial revolution and an increase in real wages. He emphasizes the importance of distinguishing between long term and short term effects of economic development on migration. While he sees lack of economic development as a push factor for migration in the long term, an increase in economic development might be a push factor for cross-border movement in the short term. The author supports his argument with much historical evidence including migration from Mexico to the USA and links to other authors' studies. (Massey 1988) Rotte and Vogler had some concluding remarks to the Massey's work: "*Two points are most interesting since they are in contrast to theoretical considerations: Most migration actually did not originate in the poorest European countries, and in the first decades rising economic wealth led to an increase of migration. Great Britain which experienced the earliest and the strongest economic development, had also the highest emigration rate*." (Rotte and Vogler, 1998: 9)

As truthfully noted by the authors, this evidence is contrary to common theoretical perspectives on international migration and also on foundations of most national immigration policies. The immigration policies are built on the ground of fear of migration driven by economic underdevelopment of the home country. (Rotte and Vogler, 1998: 9)

Such evidence is not unique. There is a large amount of literature that examines the effectiveness of European immigration policies not providing satisfying answers. Europe is legally closing its outside borders and fearing an influx of immigrants from the Asian and African countries, but at the same time, it is currently suffering the Mediterranean illegal immigration crisis.

Particularly important for this thesis is empirical evidence of the effects of Schengen space enlargement on migration. Toth et al. (2008) provide some evidence of a chain of consequences that can be described as: stricter immigration policies – higher number of residence permits or asylum applications – higher number of rejected applications – higher number of illegal entries. (Toth et al., 2008) This argument can

explain the increasing number of illegal migrants trying to cross national borders of the southern member states of the EU.

3.1.4 Implications for the thesis

This overview of empirical evidence presented in the available literature on international migration is far from being comprehensive. There is a tremendous amount of studies on this topic and summarizing all of them is not an objective of this thesis. However, the presented former empirical results aim to serve as evidence for the importance of further examination of the determinants of international migration, particularly to the new immigration countries, such as the Czech Republic. Even though there are some common conclusions in this academic field, the driving forces of immigration from developing countries are not clearly explained in the existing literature.

Another important purpose of this part of the thesis is to emphasize the confusion in explaining the implications of the research on immigration policies in the EU. Even though the immigration inflows have not risen dramatically after the border control liberation connected to the enlargement of the Schengen space of the transitional countries of Eastern Europe, the EU's eastern and southern borders still remain highly protected and national policies of certain countries remain tight.

3.2 Regression model

3.2.1 Rotte and Vogler's model

Rotte and Vogler (1998) collected the dataset for international migration from 86 African and Asian countries into Germany. The dataset included numbers of asylum seekers in the period of 1984–1995 and total immigration inflows for the period of 1981–1995, while the inflows also contained the number of asylum seekers. (Rotte and Vogler, 1998: 14)

The dataset covered most of the African and Asian least developed countries (LDCs) and the authors included countries from which Germany received immigrants,

as well as those without any person coming. As they point out in their article, the used dataset was not balanced: "*unfortunately, the basic statistics available were not always perfectly broken down. Countries sending only few immigrants were combined as a residue*." (Rotte and Vogler, 1998: 15) Interestingly, in some of the years included, the numbers were broken down to only few countries which, however, covered large share of the arrived immigrants.

The authors run the regression analysis using the panel data model with random effects estimation. The choice between the fixed effects and the random effects estimation was made using Hausman test (Hausman 1978) and further examined against the pooled OLS model by means of the Lagrange multiplier test, introduced by Breusch and Pagan (1980) and modified by Baltagi and Li (1990) for unbalanced panel data. "*It has the null hypothesis that the random effects have a variance of zero in which case random effects provide no better model than OLS. Our test statistics (...) led to a clear rejection of the null hypothesis, indicating that in each case the random effects panel mode is preferable to the simple OLS framework*." (Rotte and Vogler, 1998: 15)

Rotte and Vogler used four categories of explanatory variables: economic opportunities, political situation, links to Germany, home country characteristics and restrictions of German law. All these variables are extracted from the international migration theories as indicated in the first chapter of this thesis. Firstly, variables in the category of economic opportunities are expressed as the home country GNP per capita and GNP per capita ratio (home country / Germany). Secondly, variables in the category of political situation are defined by political rights and civil liberties (indicator Combined Freedom House Index) and political terror scale (indicator created by Amnesty International). Thirdly, variables in the category of links to Germany are expressed by the migrant stock in Germany and trade with Germany calculated as sum of exports to and imports from Germany. Fourthly, the category concerning home country characteristics is expressed as share of urban population, growth of labour force, number of inhabitants and distance to Germany. Fifthly, the restrictions of German law are expressed as dummy variables for restrictive legal measures taken in Germany in 1987 and 1993. Besides these categories, the time trend was included to cover improved communication and transportation links due to the technical progress. (Rotte and Vogler, 1998: 17–27)

Considering the results of these authors' analysis, I can conclude that some of them were expected by the formulated hypothesis, while some of them provided an interesting view to the inside of yet unexplored problems. As expected, Rotte and Vogler found a positive impact of the wage difference on immigration. Interesting results were brought by the distinction between the index of political rights and civil liberties and indicator of political terror against population. Rotte and Vogler concluded that „*in all estimations we see that political rights and civil liberties have no impact on asylum migration, but political terror against the population of the sending country clearly has.*" (Rotte and Vogler, 1998: 19)

The estimation results for the significance of links to Germany were convincing. Positive effects of the migrant stock in Germany on immigration flows were found in most of the estimations, but on the other hand, no consistent picture was found for the trade variable. (Rotte and Vogler, 1998: 20) The last category was the implementation of restrictive immigration laws. All dummy variables had the expected negative coefficient but were not statistically significant in each case. For other further controls mentioned above, such as infrastructure and technical progress, no effect was found.

3.2.2 Adaptation of the model

The aim of this thesis is to apply a similar method to the dataset adjusted for needs of the new immigration country such as the Czech Republic.

Firstly, the examined set of variables was adjusted to the time period and countries included in the analysis. Rotte and Vogler (1998) used the distance between capitals of the countries in kilometres as an indicator of costs of migration. After consideration of the real current costs of the travels from examined regions to the Czech Republic and their comparison with the distance, I concluded that the distance is not an appropriate indicator of the real travel costs. The price of airfare or other types of transportation depends more on the attractiveness of destination than on the actual distance. The travel costs for immigrants coming from developing countries with insignificant tourism rates are higher than from those with high tourism. At the same time the prices of the travels to the Czech Republic tend to be higher than to more popular immigration destinations in Western Europe.

The definition of an indicator referring to cost of migration is highly problematic. Besides the actual travel, the migrants have to showcase an amount of

financial resources in order to obtain visa and enter the Czech Republic. The average prices of flights are not available for historical periods and therefore not possible to use in the dataset. Under certain circumstances the expenses can be estimated by the international tourism flows to indicate the attractiveness of the destination, however, the explanatory power of this indicator would have significant limits. Considering all these issues, I decided to eliminate the variable from the analysis. In order to at least partially examine the importance and explanatory power of the neoclassical micro theory for explaining immigration to the Czech Republic, the travel costs will be estimated by stock of foreigners from the same country of origin that are already present. The relation between these variables has been proven by Carrington et al. (1996) and Beine et al. (2011) who „*found that the migration costs decline as the stock of migrants of the same nationality grows*". (Vinkhrov, 2013: 12)

Secondly, the regions included in the analysis were expanded on South American and European countries. These countries belong to the group which is considered as developing in this thesis. In other words, I will include all countries in the world that are not classified as advanced economies by the IMF in my analysis. The reasons for choosing this set of countries have been already explained earlier in this paper.

Thirdly, the dependent variable of overall immigration to the Czech Republic was counted as the annual change of number of long term (90-days) visa holders. The use of the overall migration data from OECD database which was initially planned had to be reconsidered due to insufficient volume of data available for this indicator. The numbers of long term visa holders for the time period examined in this thesis was taken from the database of the Czech Statistical Office (ČSÚ). These inflows, unlike the data used by Rotte and Vogler (1998), do not cover the number of asylum seekers that were issued the residence permit in particular year. As same as in Germany in the period examined by the authors, the vast majority of immigrants from developing countries were issued a residence permit for the reason of family reunification or asylum. (Rotte and Vogler, 1998: 15)

Another question concerning the adjustment of the model was raised while testing the collected panel dataset for the use of fixed or random effects estimators. However, the test analysis for both dependent variables has shown clearly that preference should be given to a regression analysis with random effect estimator.

A complete diagnostics of the regression will be also run as a part of the actual analysis in order to test the appropriateness of the model. Significant findings of the diagnostics and subsequent transformation of the data will be also explained in relevant parts of the chapter.

3.3 Dataset

Similarly as the dataset used by Rotte and Vogler (1998), the dataset used in this thesis is unbalanced. However, the amount of missing data is lower than in the Rotten and Vogler's model. It is due to the fact that we consider later time period in this thesis and reporting for several used indicators has been improved in the course of time. Furthermore, it is also the reason why no countries' data were combined as residuals.

Multiple regression analyses of panel data were used to examine the impact of selected variables derived from a wide range of theories of international migration on asylum and overall immigration to the Czech Republic. Dependent variables for two separate regressions are therefore the asylum and immigration indicators.

***ASYLUM* –** this dependent variable refers to the inflow of asylum seekers by nationality based on annual submissions from governments and compiled by the UNHCR. (OECD, c2015). The data for asylum migration from developing countries to the Czech Republic were taken from the OECD database.

IMMIGRATION – as already announced, the second dependent variable referring to overall immigration was not taken from the same database due to unavailability of data for countries included in the analysis. Instead, data from the Czech Statistical Office (CSU) on the number of long term visa holders were used and the overall inflow of immigrants was counted as an annual difference in the numbers. The CSU provided our analysis with more balanced data than the OECD database.

All independent variables examined in this thesis were extracted from international migration theories and Rotte and Vogler's (1998) model and they were adjusted to the so-called "new immigration country" for the purpose of analysing immigration in the Czech Republic. One indicator connected with the relative deprivation theory – concerning average years of education in the home country – have

been eliminated from the analysis due to unavailability of data for the desired time period. The unemployment rate will be used to keep an indicator of inequality in the analysis and to present some conclusions regarding the relative deprivation theory. Alternatively, I considered the use of the Gini index. The data for the examined time period are nevertheless not accessible either.

Selected variables were classified into five categories (economic opportunities, political situation, links to the Czech Republic, home country characteristics, and restrictive laws) and four regional dummies (Asia, Africa, Europe, and South America). The regressions were run for all countries in the dataset and also for each region separately.

Economic opportunities

GNIratio is a variable referring to the ratio of GNI per capita in home country and the Czech Republic. The data were obtained from the World Bank database and the variable is serving as an approximation of wage difference between the two countries. This indicator is considered to be the most important determinant of international migration by the neoclassical economics (macro theory).

GNIpc and ***GNIpc squared*** are both variables included in the analysis for reasons suggested by Rotte and Vogler (1998: 16): "*In order to account for a possible dissolution of financial restrictions and the corresponding inverse u-shaped relationship between development and migration, we also included GNP per capita of the sending country and its square*."

UNEratio is a variable that serves as an indicator of the difference between unemployment rates of home country and the Czech Republic. It is counted as the total unemployment as percentage of the total labour force ratio (home/Czech Republic). The Keynesian theory and the dual labour market theory of international migration regard the difference in unemployment rates as the most important driving force of migration. The data were extracted from the World Bank database.

Political situation

PRCL index refers to the political rights and civil liberties index that is annually produced by the organisation Freedom House. The index is an average value of two separate indicators ranging from 1 (free) to 7 (not free).

PTS is an indicator of political terror produced annually by Amnesty International and created by Purdue University, USA that measures levels of political violence and terror that a country experiences on a 5-level scale in which number 5 indicates the worst score. Both variables in the political situation category are derived from the political context included in the system approaches to international migration.

Links to the Czech Republic

STK is a variable referring to the stock of migrants from the same country of origin (nationals of the same country) as new immigrants. As explained above, this variable will serve in the analysis as an indicator of cost of migration. Besides neoclassical theory considering the overall expenditures, the variable is also a derivation of important factors from network and institutional theory. The data for this variable are derived from the database of CSU.

TRD is an indicator of the overall exchange of materials between the two countries implying the strength of their relation. It has been counted as the sum of import and export data extracted from the UNCTAD database.

Home country characteristics

URBpop, GRWpop and ***TOTpop*** are variables referring to a share of urban population, population growth and total population in the home country. These variables serve as indicators of push effects from countries of origin. They are derived from cumulative causation theory which emphasizes the importance of demographic context of home countries. The data were taken from the World Bank database.

UNE Data on unemployment as a percentage of the total labour force in the home country were, as well as the previous variable, extracted from the World Bank database and refer to the certainty of sufficient household income in the home country. The hypothesis of a significant impact of changes in this indicator on the international migration has been generated within the new economics of migration.

Restrictive laws

LAW* (*Act 326) The law adopted in the Czech Republic in 1999 that came into operation in 2000 will be the only restrictive policy considered in the analysis. The impact of restrictive immigration inflows was examined within the institutional context of modern system approaches to international migration.

The above-described model has been applied to the set of 83 countries all around the world, including developing Asia, Africa, South America and several European countries outside the European Union. As explained earlier, the examined countries were classified according to the methodology of the International Monetary Fund. All economies, except for those regarded as advanced, were therefore eligible for inclusion in the dataset. In this analysis, there will be examined both home countries with high immigration inflows to the Czech Republic and those with no immigration at all.

However, the reporting of international migration is limited for certain countries. For this reason, I excluded those whose data for both asylum and overall immigration were represented insufficiently. Immigration flows from all excluded countries were regarded as marginal.

Table 5 List of countries included in the analysis

AFGHANISTAN, ALBANIA, ALGERIA, ANGOLA, ARMENIA, AZERBAIJAN, BANGLADESH, BELARUS, BOSNIA AND HERCEGOVINA, BURKINA FASO, BURUNDI, CAMEROON, CHAD, CHINA, CONGO, COTE D'IVOIRE, CUBA, DEMOCRATIC REPUBLIC OF CONGO, EGYPT, ERITREA, ETHIOPIA, GAMBIA, GEORGIA, GHANA, GUINEA, GUINEA-BISSAU, HONDURAS, INDIA, INDONESIA, IRAN, IRAQ, JORDAN, KAZAKHSTAN, KENYA, KYRGYZSTAN, LAOS, LIBERIA, LIBYA, MACEDONIA, MADAGASCAR, MALAYSIA, MALI, MAURITANIA, MAXICO, MOLDOVA, MONGOLIA, MOROCCO, MOZAMBIQUE, MYANMAR, NAMIBIA, NEPAL, NICARAQUA, NIGER, NIGERIA, PAKISTAN, PARAQUAY, PERU, PHILLIPINES, RUSSIA, RWANDA, SAUDI ARABIA, SENEGAL, SIERRA LEONE, SOUTH AFRICA, SRI LANKA, SUDAN, SYRIA, TAJIKISTAN, TANZANIA, THAILAND, TOGO, TUNISIA, TURKEY, TURKMENISTAN, UGANDA, UKRAINE, URUQUAY, UZBEKISTAN, VENEZUELA, VIET NAM, YEMEN, ZAMBIA, ZIMBABWE

Not all of these countries are included in both analyses due to unavailability of data for some of the indicators. The number of included countries from particular regions will be specified in relevant contexts while running the regression analyses.

3.4 Summary of the chapter

Important empirical evidence on determinants of international migration was found by scholars throughout the development of the field. I consider very important to outline the overview of these empirical analyses examining the explanatory power of international migration theories before the actual analysis in order to be able to compare my results with previous conclusions. Impactful research papers of scholars who analysed the relation between migration and trade liberalization were therefore overviewed, and trade patterns of the Czech Republic were characterized in relevant contexts. Furthermore, research on the relation between migration and risks connected to life in the home country was presented. In this subchapter, I divided the risk factors into three categories: economic risk factors, political risk factors, and risk factors connected to humanitarian and natural disasters. A brief overview of empirical research on each category was given. In addition, I also provided some evidence of historical patterns of international migration.

As a conclusion of this subchapter, I presented two main implications of earlier research which this thesis reflects: firstly, there is no consensus on what are the main driving forces of international migration; and secondly, certain empirical evidence has a significant impact on the decision-making processes which lead to changes in immigration policies in the European Union. Both these implications are testimonies for an urgent need for further research on the determinants of immigration to the "new immigration countries".

Later in this chapter, I provided a detailed description of the model created by Rotte and Vogler (1998), and I also presented adjustments that have been made in order to adapt the model to the used dataset and to the features of immigration to the Czech Republic. There are four main modifications that have been made in the model. Firstly, the variable "distance between countries" serving as an indicator of costs of migration has been eliminated from the analysis due to the reasons explained above and it has been replaced by the "stock of migrants". Secondly, the regions of South America and Europe outside the EU have also been included in the analysis. Thirdly, some of the variables have been obtained from different data sources than it was initially planned because they are otherwise unavailable, and the data for immigration inflows were counted as an annual change in number of long-term visa holders. Fourthly, due to

different results of test statistics the choice of a suitable model was adjusted to the analysed dataset.

Furthermore, a description of the used dataset including both dependent and independent variables and the set of countries was presented.

4 Empirical analysis

The explanatory power of all aforementioned independent variables for the analysis of both asylum and immigration inflows to the Czech Republic will be tested in this chapter. Similarly as in Rotte and Vogler's (1998) model, the structure of our dataset hints at a regression analysis using a panel data model, in either a fixed effects or a random effects estimation. The choice between these two alternatives was made after running Hausman tests on random and fixed effects estimators and a Breusch-Pagan test on random effects model against pooled OLS. (Rotte and Vogler, 1998: 16)

Rotte and Vogler's (1998) test statistics showed the appropriateness of the use of random effect model. After testing the model on heteroskedasticity and autocorrelation, several transformations of the used data have been done by the authors. In my model, I kept the suggested transformations and tested the heteroskedasticity and autocorrelation again within the complete diagnostics of regression.

I run two separate regression analyses, one for each dependent variable (asylum and overall immigration inflows). I will dedicate one subchapter of this thesis to each of them.

4.1 Asylum migration

After running the first series of regressions, the independent variable GNIpc squared was identified as an omitted variable and excluded from the analysis due to the reason of multicolinearity. The model was then tested for the use of random and fixed effects estimator by using the Hausman (1978) test. Results of the test led to the rejection of the null hypothesis and to the choice of random effects estimator (p-value = 0.0685). Furthermore, I run the Breusch and Pagan Lagrangian multiplier test for random effects against the pooled OLS. The results (p-value = 0.0000) confirmed the appropriateness of using a model with individual specific effects – in this case the random effects estimator.

Secondly, I tested whether all basic assumptions for regression analysis meet the tested panel data. The choice of appropriate test statistics was made according to characteristics of the dataset and preference has been given to tests suitable for unbalanced panel data.

I therefore used the Laplace likelihood-ratio test for heteroskedasticity and concluded that the dataset is homoscedastic and that no further transformations are required (p-value = 1.000). The results have proven that transformations done by Rotte and Vogler in their research paper are sufficient for this model.

Furthermore, the model was also tested for autocorrelation using the Wooldridge test for panel data. The results (p-value = 0.000) showed that there is a problem of serial correlation in the model. In order to resolve this problem, I corrected the panel data model for ar1 autocorrelation by using GLS.

The examined determinants of international migration are clearly interrelated and a certain level of correlation between them at different points of time will be unavoidably a part of the analysis. Table 6 shows the correlation matrix of all independent variables.

Table 6 Correlation matrix (independent variables)

	GNI ratio (log)	**GNIpc (log)**	**PRCL**	**PTS**	**STK (log)**	**TRDE (log)**	**URB pop**	**GRW Pop**	**TOT pop (log)**	**LAW**	**UNE**	**UNE ratio**
GNIratio (log)	1.000											
GNIpc (log)	0.968	1.00										
PRCL	-0.017	-0.038	1.00									
PTS	0.226	0.212	0.264	1.00								
STK (log)	0.427	0.463	0.016	-0.017	1.00							
TRD (log)	0.690	0.735	-0.025	0.050	0.719	1.00						
URBpop	-0.405	-0.392	-0.065	0.008	-0.035	-0.021	1.00					
GRWpop	-0.058	-0.055	0.151	-0.101	0.284	0.098	0.279	1.00				
TOTpop (log)	0.588	0.572	0.090	0.384	0.250	0.392	0.030	0.108	1.00			
LAW	-0.022	0.144	-0.083	-0.027	0.117	0.145	0.004	0.003	0.016	1.00		
UNE	-0.062	-0.075	-0.112	-0.061	0.221	0.122	0.042	-0.085	-0.199	-0.014	1.00	
UNEratio	-0.055	-0.070	-0.082	-0.041	0.196	0.110	0.035	-0.080	-0.182	-0.182	0.903	1.00

Number of observations: 1283

Regression formula:

$$ASYLUM = ß_0 + ß_1 \log GNIratio_{it} + ß_2 \log GNIpc_{it} + ß_3 PRCL_{it} + ß_4 PTS_{it} + ß_5 \log STK_{it} + ß_6 \log TRD_{it} + ß_7 URBpop_{it} + ß_8 GRWpop_{it} + ß_9 \log TOTpop_{it} + ß_{10} LAW_{it} + ß_{11} UNE_{it} + ß_{12} UNEratio_{it} + e_{it}$$

Besides a very high correlation of all economic variables, the correlation matrix provides this analysis with an interesting inside view of relatively high correlation between variables TRD and STK which refers to the existence of a relation between them. This correlation is giving us an interesting insight into another international migration feature – the relation between trade and presence of particular trade partner nationals in the country. Although the variable STK (stock of migrants) is not examined as a dependent variable in this thesis, it is still important to note the existence of this relation.

On the basis of aforementioned assumptions and transformations I run series of regression analyses of my panel dataset using the random effects model estimated by generalized least squares (GLS). Firstly, I run regression for all countries in the dataset together. Afterwards, I also examined all defined regions (Africa, Asia, Europe, and America) separately in order to see differences between selected determinants to international migration.

The results of the estimation for asylum migration are collected in Table 7. All independent variables are classified in the first column. The analysed group of countries is placed in the second row. The third row is dedicated to the number of observations for each regression. I added the value of the t-test for each variable into the brackets under the values of coefficients.

As we can see in the table, the results of individual regressions differ significantly from one region to another. When considering all countries in the dataset, four variables have shown to be significant on 1% significance level: GNIratio, GNIpc, STK and LAW. We can see an important negative effect of growth of GNIpc on the volume of asylum migration which can be also used as evidence for a significant negative relation between migration and economic development in the home country. To conclude, according to my analysis, with growing GNIpc in the home country we can observe a decline in asylum immigration to the Czech Republic.

Table 7 Estimation results for asylum migration

	Asylum migration				
Region	All	Asia	Africa	Europe	South America
Observation	1037	318	448	179	91
Economic opportunities:					
log GNI p.c. ratio (home/Czech Republic)	155.8*** (6.72)	160.9*** (160.8)	2.294 (0.68)	232.8 (1.20)	0.224 (0.06)
log home GNI p.c.	-175.2*** (-7.46)	-144.4*** (-5.23)	-3.692 (-1.01)	-458.7*** (-3.16)	2.606 (0.65)
unemployment ratio (home/Czech Republic)	-0.036 (-0.00)	6.044 (0.22)	-4.125 (-1.52)	48.20 (0.80)	-0.695 (-0.15)
Political situation					
political rights, civil liberties	-10.31 (-1.54)	-4.738 (0.79)	-0.564 (-0.43)	20.17 (0.43)	1.338 (1.01)
political terror scale	6.475 (0.66)	10.01 (3.25)	2.806** (1.96)	-21.25 (-0.32)	2.448 (1.32)
Links to Czech Republic:					
log migrant stock in Czech Republic	45.84*** (7.19)	28.36*** (3.25)	3.118 (1.83)	71.50* (1.87)	2.294 (1.31)
log trade with Czech Republic	5.148 (0.63)	-12.92 (-1.22)	0.736 (0.56)	-34.90 (-0.54)	0.108 (0.08)
Home country characteristics:					
share of urban population	0.000 (1.18)	-0.619 (-0.60)	-0.107 (-0.70)	-2.069 (-0.35)	0.000 (0.63)
population growth	0.000 (-0.74)	0.000 (0.94)	-0.681 (-0.49)	-55.47 (-0.99)	Omitted
log population	7.708 (1.12)	7.708 (0.04)	0.836 (0.90)	428.0*** (2.82)	-8.144 (0.288)
unemployment	-4.339 (-1.31)	-3.754 (-0.69)	1.195** (2.32)	-2.058 (-0.16)	-0.348 (-0.42)
Restrictive Laws					
2000	-140.5*** (5.39)	-109.7*** (3.70)	-1.355 (0.37)	-658.6*** (4.93)	-1.554 (0.44)
Tests					
R^2 overall	0.1739	0.2536	0.0950	0.3343	0.2899
R^2 between	0.5140	0.6510	0.2323	0.9613	0.9702
R^2 within	0.0423	0.1165	0.0379	0.1966	0.0414
Hausman	17.28 (p-v 0.0685)				
Breusch-Pagan	438. 000 (p-v 0.000)				

*** results are significant on 1% significance level
** results are significant on 5% significance level
* results are significant on 10% significance level

The countries of developing Asia have shown similar patterns. Nevertheless, the group of African countries brought very different numbers into my consideration. We can see significant results on 5% significance level for variables PTS and UNE referring to the political terror scale and the unemployment situation in home country. This difference between the regions can be explained by generally lower numbers of African asylum immigrants in the Czech Republic. Consequently, there was therefore also a lower stock of foreigners from the same countries of origin in the past.

According to the results, the push factors of the home country (such as PTS and UNE) are more important driving force for migration from African countries than the pull factors of the country of destination (GNIratio, STK, LAW). All other variables are statistically insignificant in this analysis. The results for South America must be interpreted carefully because their explanatory power is limited due to the low number of observations.

4.2 Immigration inflow

Data with the dependent variable IMMIGRATION (immigration inflow to the Czech Republic with excluded asylum migrants) were tested in a similar manner as the data for only asylum migration. Firstly, I run one more time Hausman and Breusch-Pagan tests in order to choose between the random and the fixed effect; and random versus OLS estimator. Results of the Hausman test (p-value = 0.6599) point clearly at the appropriateness of the random effect model just as in the first analysis. The findings were supported also by results of the Breusch-Pagan Lagrangian multiplier test (p-value = 0.000).

Later in this analysis, I tested the model for heteroskedasticity and autocorrelation and concluded contradictory results to the previous analysis. Through the Laplace likelihood-ratio test I identified a problem with heteroskedasticity (p-value = 0.000). On the contrary, the Wooldridge test for autocorrelation in panel data has shown no autocorrelation in the model (p-value 0.2876). I used White's heteroscedastic-consistent robust standard errors for random effects GLS regression in order to correct the heteroskedasticity.

Table 8 Estimation results for immigration inflow

	Immigration inflow				
Region	All	Asia	Africa	Europe	South America
Observation	1247	407	508	196	136
Economic opportunities					
log GNI p.c. ratio (home/Czech Republic)	18.59 (0.21)	-84.51 (-0.71)	-0.525 (-0.30)	-425.7 (0.80)	-5.184 (-1.57)
log home GNI p.c.	-108.5 (-0.85)	75.60 (0.79)	-0.306 (-0.15)	-518.0 (-0.90)	3.485** (2.10)
unemployment ratio (home/Czech Republic)	44.73 (1.60)	109.4* (1.89)	6.141 (1.44)	-49.68 (-0.69)	-0.861 (1.27)
Political situation					
political rights, civil liberties	-47.10 (-1.58)	-25.99*** (-2.67)	0.655 (1.45)	-386.0* (-1.84)	0.861* (-1.38)
political terror scale	-3.840 (-0.27)	-2.198 (-0.18)	0.320 (0.48)	-401.8** (-1.97)	2.970 (-1.38)
Links to the Czech Republic					
log migrant stock in the Czech Republic	144.8** (1.78)	49.90*** (3.52)	0.48*** (2.90)	439.5*** (2.69)	1.409 (1.04)
log trade with Czech Republic	14.60 (0.96)	-17.64 (-1.34)	0.683 (1.40)	256.4 (1.07)	0.687 (0.86)
Home country characteristics					
share of urban population	0.000*** (-3.32)	1.500 (0.85)	0.033 (0.61)	-0.585 (-0.03)	0.000 (-0.92)
population growth	0.000 (0.55)	0.000*** (9.12)	0.226 (0.74)	-159.8 (-0.72)	0.000 (0.96)
log population	39.48 (1.14)	-6.804 (-0.21	0.262* (1.88)	1283*** (3.44)	3.808 (1.26)
unemployment	-19.29 (-1.33)	-22.43** (-1.99)	-0.661 (-1.40)	-0.494 (-0.02)	-0.127 (-0.26)
Restrictive Laws					
2000	-157.1 (-1.71)	-68.71 (-0.72)	-1.970 (-1.01)	-1042* (-1.77)	0.846 (0.68)
Tests					
R2 overall	0.1486	0.2226	0.2647	0.3453	0.4858
R2 between	0.3226	0.9385	0.7070	0.8315	0.9365
R2 within	0.0060	0.0129	0.1200	0.0289	0.2876
Hausman	7.68 (0.6599)				
Breusch-Pagan	804.41 (0.0000)				

*** results are significant on 1% significance level

** results are significant on 5% significance level

* results are significant on 10% significance level

Regression formula:

$$IMMIGRATION = ß_0 + ß_1 \log GNIratio_{it} + ß_2 \log GNIpc_{it} + ß_3\ PRCL_{it} + ß_4\ PTS_{it} + ß_5 \log STK_{it} + ß_6 \log TRD_{it} + ß_7\ URBpop_{it} + ß_8\ GRWpop_{it} + ß_9 \log TOTpop_{it} + ß_{10}\ LAW_{it} + ß_{11}\ UNE_{it} + ß_{12}\ UNEratio_{it} + e_{it}$$

The results are classified in Table 8 in the same order as in the analysis of asylum immigration. We can observe a relative insignificance of most of the variables while examining all countries in the dataset together. Only variable URBpop is significant on 1% significance level and variable STK on 5% significance level.

However, the results have changed when looking at the geographical regions separately. Asian countries show significant values on 1% significance level for the index PRCL, STK and GRWpop, African countries only for STK, and European countries for STK of migrants and size of population. In case of South America, there is only one variable significant on 5% significance level – GNI per capita in the home country.

As announced earlier, the results for the region of South America have to be in both cases interpreted carefully due to a small number of examined countries.

4.3 Relevance for international migration theory

I tested the explanatory power of several international migration theories by means of this empirical research in order to identify the most important determinants of immigration to the Czech Republic. The Czech Republic belongs to the group of "new immigration countries". According to the results of both analyses, I conclude that the theories which define only one single push or pull factor as a main driving force of people's decision to migrate provide only very limited understanding of the multidimensional process of international migration.

The estimation results confirm that the recent development of international migration theory and acceptance of system approaches as the main theoretical paradigm of the field meant a significant improvement in explaining of the mechanisms that drive this worldwide phenomenon.

Those theories that are historically older lost their explanation power in this analysis and the coefficients of their derived variables proved to be insignificant. On the

contrary, the economic, demographic and system variables proved to have a significant effect on immigration to the Czech Republic.

Besides implications for international migration theories, the results are also important for understanding the impact of immigration policies. While the adoption of Act 326/1999 Sb seemed to have a significantly negative effect on the number of asylum immigrants, the analysis of the relation between numbers for overall immigration (with exclusion of asylum immigrants) and adoption of the regulation does not have significant results. These results might be caused by dynamic movements of people within the EU and particularly the Schengen Area that could have an effect of counter-force at the time of adoption of a restrictive immigration law. Nevertheless, the numbers also raise an important question about the effectiveness of national immigration policies.

It is also important to notice the differences in factors of migration among examined regions. These variations prove the multidimensionality and complexity of the factors of international migration and point at the fact that identification of its universal driving force can be extremely challenging. This statement is valid particularly for the "new immigration countries" which are often attractive for immigrants for different reasons than traditional immigration countries.

However, I found strong evidence of a positive effect of stock of migrants on both type of immigration. The significant coefficients speak in favour of the importance of network and institutional theories or institutional context incorporated in system approaches. The variable STK was also used for an approximation of costs of migration and therefore a micro wing of neoclassical theory.

Most importantly, the improvement in security situation in the home country of the immigrant, including economic, political and social security, has shown to be the most promising way to achieve a decline in immigration inflows to the Czech Republic. The negative effect on both asylum and overall immigration inflows connected to GNI per capita and its growth, and indicators of political risks, civil liberties, and political terror are evidences on which such hypothesis can be built. These findings can also be seen as a follow-up to the argument of Kusnirakova and Cizinsky (2011) on the importance of understanding the reactions of policy makers to the immigration situation and adoption of liberal or restrictive immigration policies.

Table 9 Explanatory power of international migration theories

Theory	Derived variable	Measurable indicator	ESTIMATION RESULTS
Neoclassical economics: macro theory	Wage difference between countries	Log GNP p.c. ratio (home/Czech Republic)	+ effect Asylum migration
Neoclassical economics: micro theory	Total sum of the costs of movement	Stock of foreigners in the Czech Republic	+ effect Asylum migration Immigration
Keynesian theory	Difference in unemployment	Total unemployment as percentage of the total labour force ratio (home/Czech Republic)	Insignificant
New economics of migration	The certainty of sufficient household income in the home country	Total unemployment as percentage of the total labour force in the home country	Insignificant
Dual labour market theory	Unemployment in the Czech Republic	Total unemployment as percentage of the total labour force ratio (home/Czech Republic)	Insignificant
Relative deprivation theory	The degree of (income) inequality in the home country	Total unemployment as percentage of the total labour force in the home country	Insignificant
World system theory	Material and cultural linkages between countries	Log trade with the Czech Republic	Insignificant
Network theory	The size and quality of the network of the migrant population of the home country in the Czech Republic	Log migrant stock in the Czech Republic	+ effect Asylum migration Immigration
Institutional theory	The number and quality of organisation that facilitate migration from the home country to the Czech Republic	Log migrant stock in the Czech Republic	+ effect Asylum migration Immigration
Cumulative causation (Demographic context)	Accumulation of various social factors in the home country	Share of urban population in the home country	+effect Immigration
		Growth of labour force in the home country	+ effect Immigration
		Log population in the home country	+ effect Immigration
System approaches: Economic context	Economic characteristics of the home country	Log home GNP p.c.	- effect Asylum
System approaches: Political context	Political repression in the home country causing the asylum migration	Political rights, civil liberties	+ effect Immigration
		Political terror scale	+ effect Asylum migration
System approaches: Institutional context	Immigration policies and restrictive laws in the Czech Republic	Act 326/1999 Sb.	- effect Asylum migration

Immigration policies are a political instrument and do not have to necessarily respond to the needs of the real immigration situation in the country. Understanding the decision-making process of policy-makers and the political rhetoric connected to immigration is crucial, just as the ability to predict the adoption of liberal or restrictive regulations.

Considering the implications of this analysis for international migration theory, the last important point shall not be forgotten. The insignificance of certain variables and limits in their explanatory power support the argument of irrational behaviour of actors in international migration (immigrants). The migrants do not seem to take into account either the employment situation in the country of destination or the wage difference between countries (with exception of asylum seekers). This is important evidence speaking in favour of arguments presented by critiques of rational choice theories in international migration (see i. e. Stone, 2004). This phenomenon is caused mainly by lack of information about the country of destination that prevents the migrants to make a rational choice. (Stone 2004)

4.4 Comparative overview

The objective of this subchapter is to compare the results of our analysis with the conclusions of Rotte and Vogler (1998) and other earlier presented theories of international migration in order to verify their general validity by using the new evidence. For the purpose of comparison with Rotte and Vogler's estimation results I consider only the data that are comparable.

While results for economic indicators significantly differ, similar values of the coefficients can be found for stock of migrants, political situation in the country of origin, and immigration policies. Similarly as Rotte and Vogler, I identified an impact of the index of political rights and civil liberties on immigration inflows, and an impact of the level of political terror on asylum migration. These results are caused by the nature of asylum migration which refers to a violation of human rights in the country of origin.

We can identify two interesting and surprising findings in Rotte and Vogler's analysis. Firstly, the home GNP per capita appears to have a positive rather than negative effect on immigration in all observations with results significant on 5 % level.

These results are contradictory to many international migration theories, particularly the macro wing of neoclassical economics, pointing out a negative effect of domestic economic conditions on immigration inflows. According to these results, immigration from developing countries would therefore increase rather than decline with improving economic conditions.

Nevertheless, Rotte and Vogler justified their surprising and contradictory results with the argument of an inverse u-shaped relationship between migration and development. This hypothesis argues that there are high immigration incentives in the early stage of industrialisation and its explanatory power has been recently discussed by i. e. Clemens (2014) or Alonso (2011). Nevertheless, our results are not in favour of this hypothesis. The relationship between economic conditions and immigration from developing countries to the Czech Republic is negative, which means that we can expect a decline in immigration inflows with increasing GNI per capita. These results confirm the hypothesis generated from the empirical evidence of i. e. Gilpin at al. (2006)

Secondly, the trade relations have, according to Rotte and Vogler, a negative impact on asylum immigration. The results for all African countries have shown to be significant on 5 % level. This supports the argument of a negative effect of trade liberalisation and consequent development on immigration inflows. However, these results were not proven to be significant in our analysis. The main cause of this might be a relatively small number of countries of origin from which most of the immigrants arrived in the examined period of time. However, according to the analysis, I can confirm the validity of the Heckscher-Ohlin model in our dataset.

The German restrictive immigration regulations from 1987 and 1993 seem to be more effective than similar measures adopted in the Czech Republic. While the Czech Law had a significantly negative impact on number of accepted asylum seekers, the immigration inflows has proven to stay nearly untouched.

Beside these finding, we can see also some common patterns regarding the effects of population growth, population in total and share of urban population in some of the examined regions. These results do not differ significantly from one another.

4.5 Summary of the chapter

The empirical analysis of determinants of international migration from developing countries to the Czech Republic has been made in this chapter. I decided to divide the analyses of asylum immigration and overall immigration into two distinctive sections due to different results of test statistics. In the following subchapters, I tested the dataset for several assumptions of appropriateness of regression analysis and I defined suitable panel data models. After choosing the regression model with random effects estimator, I run a series of regressions for all countries and individual regions included in the analysis.

As we can see from Table 7 and Table 8, the results of individual regressions differ significantly from one region to another. When examining the dependent variable ASYLUM for all countries in the dataset, four variables have shown to be significant on 1% significance level: GNIratio, GNIpc, STK and LAW. I have proven the important negative effect of growth of GNIpc on the volume of asylum migration which can be also used as evidence for a significantly negative relation between migration and economic development. To conclude, according to our analysis, with growing GNIpc in the home country we can observe a decline in asylum immigration to the Czech Republic. Similar patterns have been shown in the countries of developing Asia. Nevertheless, the group of African countries brought very different numbers into our consideration – significant results on 5% significance level were shown by the variables PTS and UNE referring to the indicator Political Terror Scale and the unemployment situation in home country. The push factors of the home country (such as PTS and UNE) are, according to the results, more important driving force for migration from African countries than the pull factors of the country of destination (GNIratio, STK, LAW). All other variables are statistically insignificant in this analysis. The results for South America must be interpreted carefully because their explanatory power is limited by low number of observations.

Following the analysis of ASYLUM, I have analysed the effects of the same list of independent variables on IMMIGRATION. The results are classified in Table 8. We can observe a relative insignificance of most of the variables while examining all countries in the dataset together. Only the variable URBpop is significant on 1% significance level and the variable STK on 5% significance level. However, the results

have changed when looking at the geographical regions separately. Asian countries show significant values on 1% significance level for the index PRCL, STK and GRWpop, African countries only for STK, and European countries for STK of migrants and size of population. In case of South America, there is only one variable significant on 5% significance level – GNI per capita in the home country.

I provided an overview of international migration theories and their explanatory power examined through the regressions in Table 9. The results speak in favour of new system approaches of international migration which incorporate multiple aspects of the phenomenon.

At the end of this chapter, I summarized the implications of the results for international migration theory and I compared the results with Rotte and Vogler's estimation. I concluded that the inverse u-shaped relationship between migration and development has not been proven in this analysis. Effectiveness of immigration policies has also shown to be lower in the Czech Republic comparing to Germany, particularly for the overall immigration. However, we can see similar results for political situation and home country characteristics, particularly migrant stock.

Conclusion

The main objective of this thesis was to analyse the key determinants which drive the migration from developing countries to the Czech Republic. The aim of my research was particularly to answer following three research questions.

Firstly, the aim of this paper was to examine what are the patterns of immigration to the Czech Republic between 1995 and 2012 and what theories can be used to explain them. These topics were covered by the first two theoretical chapters. I provided an overview of main international migration theories explaining the initiation, perpetuation and system approaches to immigration. Furthermore, I derived the most important determinants of migration from each theory and defined the measurable indicators for each determinant (for results see Table 1). I did so in accordance with Rotte and Vogler's (1998) model and Jennissen's (2007) causality chain in system approaches in order to make the results of my research comparable with previous empirical evidences found in the field. Moreover, I provided an overview of the patterns of immigration to the Czech Republic throughout the history. As announced in the introduction, the section was considered to be particularly relevant for the research of immigration to the "new immigration countries" because not many studies have been translated into the English language. The historical patterns of immigration to the Czech Republic are therefore almost unavailable to the international academic community. On that account, English can be seen as an added value of this text.

Secondly, the objective was to examine what are the most significant determinants of immigration to the Czech Republic. A panel data regression model was applied on a set of determinants derived from the international migration theory and empirical studies. Furthermore, some variables were adjusted for the specific conditions of the Eastern European country in order to explore their significance. Except for several academic theses presented by students of Czech universities in last years, no empirical study of this type has been done on such extended dataset of countries of origin and independent variables. Furthermore, I presented the patterns of development of the Czech national immigration policies after the 1993. One important restrictive regulation (Act 326/1999 Sb) was identified as potentially significant for the volume of immigration inflows to the country. The policy was therefore included in the list of independent variables for the regression.

As we can see from Table 7 and Table 8, the results of individual regressions differ significantly from one region to another. When examining the dependent variable ASYLUM for all countries in the dataset, four variables have shown to be significant on 1% significance level: GNIratio, GNIpc, STK and LAW. I have proven the important negative effect of growth of GNIpc on a volume of asylum migration which can also be used as evidence for a significantly negative relation between migration and economic development in the country of origin.

To conclude, according to our analysis, with growing GNIpc in the home country we can observe a decline in asylum immigration to the Czech Republic. Such patterns were also found for the case of developing Asia. Nevertheless, the group of African countries is different. The significant results on 5% significance level were measured for variables PTS and UNE referring to the political terror scale and the unemployment situation in home African country. According to the results, the push factors of the home country (such as PTS and UNE) are more important driving force for migration from African countries than the pull factors of the country of destination (GNIratio, STK, LAW). All other variables were statistically insignificant in this analysis. The results for South America must be interpreted carefully because their explanatory power is limited by low number of observations.

Following the analysis of ASYLUM, I have examined the effects of the same list of independent variables on IMMIGRATION. The results are summarized in Table 8. We can observe a relative insignificance of most of the variables while examining all countries in the dataset together. Only the variable URBpop is significant on 1% significance level and the variable STK on 5% significance level. However, the results have changed when looking at the geographical regions separately. Asian countries show significant values on 1% significance level for the index PRCL, STK and GRWpop, African countries only for STK, and European countries for STK of migrants and size of population. There is only one variable significant on 5% significance level in the case of South America – GNI per capita in the home country.

Thirdly, my results were compared to those from Rotte and Vogler's (1998) research in order to confirm or disprove the general validity of their model. The initial hypothesis of this research is based on the presumption that there is a difference between the determinants driving international migration to traditional immigration countries and to new immigration countries. This hypothesis comes from the thought

that some of the factors must play a role in favouring the Czech Republic – an economically weaker country with a relatively restrictive immigration policy and less immigrant stock – comparing to Western Europe.

I provided an overview of the international migration theories with my conclusions related to their explanatory power in Table 9. The results speak in favour of new system approaches to international migration which incorporate multiple aspects of the phenomenon into multidimensional models. Furthermore, I summarized the implications of my results for international migration theory and I compared them with Rotte and Vogler's (1998) estimation. I concluded that the inverse u-shaped relationship between migration and development has not been proven in this analysis. Effectiveness of immigration policies has also shown to be lower in the Czech Republic comparing to Germany, particularly while examining the overall immigration. However, we can see results similar to Rotte and Vogler (1998) for political situation and home country characteristics, particularly migrant stock, which refers to important institutional, political, and network factors.

The results of my analysis of determinants of international migration do not equal to results of Rotten and Vogler (1998). Due to the differences in effects of economic indicators and immigration policies on immigration inflows, I argue that the hypothesis generated by Rotte and Vogler's is not generally valid for all countries.

The objectives of this thesis were fulfilled according to the original research design. All of the three research questions were responded by the compilation of theoretical and empirical literature, and through my own derivation and analysis of the key variables. The results of this research provide new empirical evidence of the determinants of international migration from developing countries to the so called "new immigration country".

Bibliography

Alonso, J. A. (2011) *International Migration and Development: A review in light of the crisis.* CDP Background Paper No. 11(E) (Accessed 15. 1. 2015) http://www.un.org/en/development/desa/policy/cdp/cdp_background_papers/bp2011_11e.pdf

Bade, J. K. (2005) *Evropa v pohybu. Evropské migrace dvou staletí*. Praha. Nakladatelství Lidové noviny. 497 pp. IBSN 80-7106-559-5.

Baltagi, B.H. and Q. Li (1990) A Lagrange multiplier test for the error components model with incomplete panels In *Econometric Reviews* 9, 103-107.

Baršová, A. and P. Barša. (2005) *Přistěhovalectví a liberální stát. Imigrační a integrační politiky v USA, západní Evropě a Česku*. Brno: Mezinárodní politologický ústav, 308 pp, IBSN: 80-210-3875-6.

Beine et al. (2011) *Dissecting Network Externalities*. International Migration. Discussion Paper 2011-22. Universit´e Catholique de Louvain, Belgium (Accessed 15. 1. 2015) URL: http://perso.uclouvain.be/frederic.docquier/filePDF/BDO_Dissecting.pdf

Blanchflower D. G. and C. Shadforth (2009) *Fear, Unemployment and Migration*. The Economic Journal, 119 (February), F136–F182. (Accessed 15. 1. 2015) URL: http://www.dartmouth.edu/~blnchflr/papers/fear%20unemployment%20fulltext.pdf

Bodvarsson O. and H. Van den Berg. (2013) *Economics of Immigration: Theory and Policy.* Springer Science & Business Media. 489 pp. ISBN 978-3-540-77796-0

Bogue, D. J. (1952) *A Methodological Study of Migration and Labor Mobility in Michigan and Ohio in 1947*. Oxford, Ohio: Scripps Foundation, Miami University.

Borjas, G. J. (1990) *Friends or Strangers: The Impact of Immigrants on the U.S. Economy.* New York: Basic Books. 274 pp. . (Accessed 15. 1. 2015) URL: http://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=1296&context=ilj

Borjas G. J. (1987) Self-Selection and the Earnings of Immigrants In *The American Economic Review*, Vol. 77, No. 4. (Sep., 1987), pp. 531-553. (Accessed 30. 9. 2014) URL : http://links.jstor.org/sici?sici=0002-8282%28198709%2977%3A4%3C531%3ASATEOI%3E2.0.CO%3B2-3

Breusch, T. S. and A. R. Pagan (1980). The Lagrange Multiplier Test and Its Applications to Model Specification in Econometrics. In *Review of Economic Studies*, 47(1), 239-253.

Bouček, S. (2003) Aktuální problémy adaptace vietnamského etnika v ČR. In Uherek Z. (2003) *Integrace cizinců na území České republiky*. Etnologický ústav AV. Praha. pp 7–184 (Accessed 15. 1. 2015) URL: http://is.muni.cz/el/1423/podzim2006/SPP416/um/2646404/adaptace_vietnamskeho_etnika_v_CR.pdf

Carrington et al. (1996) Migration with endogenous moving costs. In *American Economic Review* 86, 909–930. (Accessed 15. 1. 2015) URL: http://www.jstor.org/stable/2118311

Castells, M. (1989) *The Informational City: Information Technology, Economic Restructuring and the Urban-Regional Process.* Oxford: Basil Blackwell. IBSN 0631179372

Clemens, M. (2014) *Does Development Reduce Migration?* CGDEV, Working Paper 359 (Accessed 15. 1. 2015) URL: http://www.cgdev.org/sites/default/files/does-development-reduce-migration_final_0.pdf

Cohen, R. (1996) Introduction, In Cohen, R. (ed.) *Theories of Migration*. Cheltenham: Edward Elgar, xi-xvii. ISBN 1858980011

ČSU (c2013) *Cizinci: Počet cizinců.* (Accessed 15. 1. 2015) URL: https://www.czso.cz/csu/cizinci/cizinci-pocet-cizincu

CzechTrade (2012) *Zahrananiční obchod České republiky v roce 2011.* Česká agentura na podporu obchodu / CzechTrade. Praha. (Accessed 15. 1. 2015) URL: https://www.businessinfo.cz/app/content/files/zpravodajstvi-pro-export/zahranicni_obchod_2011.pdf

DaVanzo (1978). Does Unemployment Affect Migration? Evidence from Micro Data In *Review of Economics and Statistics* 60(4): 504–514 (Accessed 15. 1. 2015) URL: http://www.jstor.org/stable/1924242

Dimant D. , T. Krieger and D. Meierrieks (2013) The Effect of Corruption on Migration, 1985-2000 In *Applied Economics Letters* 20(13), pp. 1270-1274. (Accessed 15. 1. 2015) URL: https://wiwi.uni-paderborn.de/fileadmin/lehrstuehle/department-4/wiwi-dep-4-ls-8/Team/Dimant_Krieger_Meierrieks__2013__-_The_Effect_of_Corruption_on_Migration__1985-2000.pdf

Drabo A. and L. Mbaye (2011) *Climate Change, Natural Disasters and Migration: An Empirical Analysis in Developing Countries.* IZA Discussion Paper No. 5927 (Accessed 15. 1. 2015) URL:

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1921978

Drbohlav, D. (1998) The Prognosis of the Development of Migration in the Czech Republic in Relation to the Integration of Foreigners. In: *National Round Tables*, 19 February 1998, Prague. Ministry of the Interior of the Czech Republic, str. 29-33.

Drbohlav, D. (2003) Immigration and the Czech Republic (with special respect to foreign labour force. In *International Migration Review*. Vol. 37, No. 1, Spring 2003, pp. 194 – 224. (Accessed 30. 9. 2014) URL: http://aa.ecn.cz/img_upload/f76c21488a048c95bc0a5f12deece153/drbohlav_clanek02.pdf

Ethier W. J. (1986) Illegal Immigration: The Host-Country Problem In *The American Economic Review*. Vol. 76, No. 1 (Mar., 1986), pp. 56-71 (Accessed 15. 1. 2015) URL: http://www.jstor.org/stable/1804127

Eylemer S. and S. Semsyt (2007) *Migration-security nexus in the Euro-Mediterranean relations.* PERCEPTIONS Summer-Autumn 2007, pp. 49-70 (Accessed 30. 9. 2014) URL: http://sam.gov.tr/wp-content/uploads/2012/02/EylemerSemsit.pdf

Gilpin at al. (2006) *The impact of free movement of workers from Central and Eastern Europe on the UK labour market*. Department for Work and Pensions Working Paper No 29. (Accessed 15. 1. 2014) URL:

http://is.muni.cz/el/1456/jaro2006/PETPPZ/um/1293746/the_impact_of_free_movement_of_workers_from_CEEC_on_UK_labou_market.pdf

Gurak, D. T., and F. Caces. (1992) Migration networks and the shaping of migration systems. In Mary Kritz, Lin Lean Lim, and Hania Zlotnik (eds.), *International Migration Systems: A Global Approach*. Oxford: Clarendon Press, pp. 150-176.

Harris, J. R. and M. P. Todaro (1970) *Migration, Unemployment and Development: A Two-Sector Analysis*. American Economic Review, 60 (1): 126–142. 70 (Accessed 15. 1. 2015) URL: https://www.aeaweb.org/aer/top20/60.1.126-142.pdf

Hatton T. J. and J. G. Williamson (1992) *What Drove the Mass Migrations from Europe in the Late Nineteenth Century?* NBER Historical Working Paper No. 43 (Accessed 15. 1. 2015) URL: http://www.nber.org/papers/h0043

Hausman J. A. (1978) Specification Tests in Econometrics. In *Econometrica*, Vol. 46, No. 6 (Nov., 1978), pp. 1251-1271. (Accessed 25. 1. 2015). URL:

http://econweb.tamu.edu/keli/Hausman%201978.pdf

Hofirek and Nekorjak (2008) Vietnamští imigranti v českých velkoměstech: Integrace přistěhovalců z Vietnamu. In. Rákoczyová, M.- Trbola, R. (eds.): *Sociální integrace přistěhovalců v České republice*. Praha: SLON, s. 161-197.

Hůle, D. (2005). *Evidence zahraniční migrace ČR.*(Accessed 25. 1. 2015). URL: http://www.demografie.info/?cz_detail_clanku&artclID=122

Hugo, G. J. (1981) Village-communities, village norms, and ethnic and social networks: A review of evidence from the Third World, In Gordon F. DeJong and Robert W. Gardner (eds.), *Migration Decision Making: Multidisciplinary Approaches to Microlevel Studies in Developed and Developing Countries.* New York: Pergamon Press, pp. 186-225.

Jennissen, R. (2004) *Macro-economic Determinants of International Migration in Europe.* Dutch University Press. pp. 206. ISBN 9036190223.

Jennissen, R. (2007) Causality Chains in the International Migration Systems Approach. In: *Population Research and Policy Review*. vol. 26, no. 4. pp. 411–436. ISSN 0167-5923. (Accessed 4. 9. 2014) URL: http://www.jstor.org/stable/40230984

Katz, E. and O. Stark. (1986) Labor migration and risk aversion in less developed countries. In *Journal of Labor Economics* 4: 131-149. (Accessed 12. 12. 2014) URL: http://commons.lib.niu.edu/bitstream/handle/10843/13294/katz1986b.pdf;jsessionid=910878F014627BF8E838827BDA0452E2?sequence=1

Kelly, B. and A. Jawadurovna Wadud (2011) *Asian labour migrants and humanitarian crisis: lessons from Libya.* IOM ISSUE NO. 3 (Accessed 30. 9. 2014) URL: http://publications.iom.int/bookstore/free/MPIIssueNo3_10July2012.pdf

King, R. (2002). Towards a New Map of European Migration. In. *International Journal of Population Geography*, 8(2), pp. 89-106. (Accessed 30. 9. 2014) URL: http://www.sociologyofeurope.unifi.it/upload/sub/Altri%20documenti/King_New_migration_in_Europe_article[1].pdf

King, R. (2012) Theories and Typologies of Migration: An Overview and a Primer. In. *Willy Brandt Series of Working Papers in International Migration and Ethnic Relations.* 3/12. Malmö Institute for Studies of Migration, Diversity and Welfare (MIM) (Accessed 30. 9. 2014) URL: https://www.mah.se/upload/Forskningscentrum/MIM/WB/WB%203.12.pdf

Koudelka, J. (2014). Imigrace a politické strany v České republice 2010–2013. In *Global Politics*. (Accessed 25. 1. 2015). URL http://www.globalpolitics.cz/clanky/imigrace-a-politicke-strany-v-ceske-republice-2010-2013

Kritz, M., and H. Zlotnik. (1992) *International migration systems: a global approach.* Oxford: Clarendon Press. 345 pp. ISBN: 0 198 88356 3.

Kušniráková T. and P. Čižinský. (2011) Dvacet let české migrační politiky: Liberální, restriktivní nebo ještě jiná?. In *Geografie*. 2011, n. 4, 116. pp. 497–517. (Accessed 25. 1. 2015). URL: http://geography.cz/sbornik/wp-content/uploads/2012/01/g11-4-7kusnirakova_cizinsky.pdf

Lauby, J. and O. Stark. (1988) Individual migration as a family strategy: Young women in the Philippines. In *Population Studies* 42: 473-486. (Accessed 25. 1. 2015). URL: http://www.jstor.org/stable/2174408

Lewis, A. W. (1954) *Economic development with unlimited supplies of labour*. The Manchester School of Economic and social Studies 22 (2): 139-191. URL: ftp://ftp.uic.edu/pub/depts/econ/wpaper/cchis/docs533/Economic%20Development%20with%20Unlimited%20Supplies%20of%20Labour%20-%20Arthur%20Lewis.pdf

Maboguje, A. L. (1970). Systems Approach to a Theory of Rural-Urban Migration. In *Geographical Analysis*. Volume 2, Issue 1, 1-18.

Markusen, J. R. (1983) Factor Movements and Commodity Trade as Complements. In *Journal of International Economics*. 14 (3-4): 341-356. (Accessed 15. 1. 2015) URL: http://ir.lib.uwo.ca/cgi/viewcontent.cgi?article=1022&context=economicscsier_wp

Massey, D., et al. (1993). Theories of International Migration: A Review and Appraisal. In: *Population and Development Review*. Vol. 19, No. 3 (Sep., 1993), pp. 431-466. (Accessed 30. 9. 2014) URL: https://cis.uchicago.edu/outreach/summerinstitute/2011/documents/sti2011-parks-theories_of_international_migration.pdf

Massey D. (1988) Economic Development and International Migration in Comparative Perspective. In *Population and Development Review*. Vol 14, No. 3. Pp 383-413 (Accessed 15. 1. 2014) URL:

http://worldroom.tamu.edu/Workshops/Migration06/EuropeanUnion/EU%20articles/Economic%20Development%20and%20International%20Migration.pdf

Massey D. and F. G. Espana. (1987) *The social process of international migration*. Science 237: 733-738 (Accessed 30. 9. 2014) URL: http://www.sciencemag.org/content/237/4816/733.full.pdf

Massey, S. D. et al. (1998) *Worlds in Motion: Understanding International Migration atthe End of Millennium.* Clarendon Press. Oxford. IBSN: 0198294425

Morawska, E. (1990) The sociology and historiography of immigration. In Virginia YansMcLaughlin (ed.), *Immigration Reconsidered: History, Sociology, and Politics.* New York: Oxford University Press, pp. 187-240.

Mundell, R. A. (1957) International Trade and Factor Mobility. In *American Economic Review* 47 (3): 321-335. (Accessed 15. 1. 2015) URL: http://www.columbia.edu/~ram15/ie/ie-06.html

MZV (c2014) *Občané třetích zemí*. (Accessed 30. 9. 2014) URL: http://www.mvcr.cz/clanek/obcane-tretich-zemi.aspx

Nassar H. and A. Ghoneim (1998) *Trade and migration, are they complements or substitutes: a review of four MENA countries.* ERF Working Paper, np (Accessed 25. 1. 2015) URL: http://www.erf.org.eg/CMS/uploads/pdf/0207.pdf

Ranis, G. and J. C. Fei (1961) *A Theory of Economic Development*, American Economic Review, 51(4), 533-565. (Accessed 20. 2. 2015) URL: http://www.jstor.org/stable/1812785

Ravenstein, E. G. (1885) The Laws of Migration. In *Journal of the Statistical Society of London*. Vol. 48. No.2. (Tun., 1885). Blackwell Publishing for the Royal Statistical Society, pp. 167-235 (Accessed 1. 9. 2014) URL: http://blog.lib.umn.edu/globerem/main/Ravenstein.pdf

Rotte R. and M. Vogler (1998) *Determinants of International Migration: Empirical Evidence for Migration from Developing Countries to Germany*. IZA Discussion Paper No. 12, (Accessed 1. 9. 2014) URL: ftp://ftp.iza.org/RePEc/Discussionpaper/dp12.pdf

Petras, E. M. (1981). The global labor market in the modern world-economy. In Mary M. Kritz, Charles B. Keely, and Silvano M. Tomasi (eds.), *Global Trends in Migration: Theory and Research on International Population Movements*. Staten Island, N.Y.: Center for Migration Studies, pp. 44-63.

Portes, A., and J. Walton (1981) *Labor, Class, and the International System*. New York: Academic Press, IBSN 1483244903

Sales, R. (2007) *Understanding Immigration and Refugee Policy. Contradictions and Continuities*, pp. 282. Bristol: The Policy Press. IBSN 9781861344519

Sassen, S. (1988) *The Mobility of Labor and Capital: A Study in International Investment and Labor Flow*. Cambridge: Cambridge University Press. IBSN 0521386721

Sasen, S. (1991) *The Global City: New York, London, Tokyo*. Princeton: Princeton University Press. IBSN: 0691070636

Smith, A. (1776) *Wealth of Nations*. Ed. by C. J. Bullock. Vol. X. The Harvard Classics. New York: P.F. Collier & Son.

Schiff M. (2006) *Migration, Investment and Trade: Substitutes or Complements?* World Bank, Universidad de Chile and IZA . (Accessed 23. 1. 2015) URL: http://www.afd.fr/webdav/shared/PORTAILS/PUBLICATIONS/EUDN/EUDN2006/Schiff.pdf

Schoorl, J. (1995) Determinants of International Migration: Theoretical Approaches and Implications for Survey Research, In van der Erf&Heering (Eds.) *Causes of International Migration*. NIDI. (Accessed 23. 1. 2015) URL: here

Sprenger, E. (2013): *The Determinants of International Migration in the European Union: An Empirical Analysis*, IOS Working Papers, No. 325, pp. 1-61

(Accessed 30. 9. 2014)

URL: http://www.dokumente.ios-regensburg.de/publikationen/wp/wp_ios_325.pdf

Sjaastad, L.A. (1962) The Costs and Returns of Human Migration. In *The Journal of Political Ecomomy*, Vol. 70, No. 5, Part 2: Investment in Human Beings (Oct., 1962), pp. 80-93. (Accessed 30. 9. 2014) URL: http://www.jstor.org/stable/1829105

Stark O. and D. Levhari (1982) On Migration and Risk in LDCs. In Economic Development and Cultural Change: Vol. 31, No. 1 (Oct., 1982), 191-6. http://www.jstor.org/stable/1153650

Stark, O. (1984) Migration decision making: A review article. In *Journal of Development Economics* 14: 251-259.

Stark O, and D.E. Bloom (1985) The New Economics of Labor Migration. In American Economic Review Vol. 75, No. 2 :173-8 http://www.jstor.org/stable/1805591

Stark, O and J. E. Taylor. (1989) Relative deprivation and international migration. In *Demography*. 1989 Feb; 26(1):1-14. (Accessed 20. 1. 2015). URL: https://ideas.repec.org/a/eee/deveco/v14y1984i1p251-259.html

Stark, O. and J. E. Taylor. (1991) Migration incentives, migration types: The role of relative deprivation. In *The Economic Journal* 101: 1163-1178. (Accessed 20. 1. 2015). URL: http://www.jstor.org/stable/2234433

Stone, J. (2004) Deconstructing rational choice: or why we shouldn't over rationalise the non-rational. In *Journal of Ethnic and Migration Studies*, Volume 30, Issue 4, 2004, http://www.tandfonline.com/doi/pdf/10.1080/1369183041000169956 8#.VTHTJNysWQA

OECD (1999) Trends in international migration. SOPEMI, Continuous Reporting System on Migration, ANNUAL REPORT, (Accessed 20. 1. 2015). URL: http://www.oecd.org/migration/mig/2717683.pdf

OECD (c2013) *International Migration Database.* (Accessed 20. 1. 2015). URL: http://stats.oecd.org/Index.aspx?DatasetCode=MIG

Pavlík Z. and Z. Kučera. (2002) *Populační vývoj České republiky 1990-2002*. Praha, Univerzita Karlova v Praze, 98 pp. (Accessed 20. 1. 2015)http://popin.natur.cuni.cz/html2/publications/papers/popdev02cz/population_development_czech_all.pdf

Piore, M. J. (1979) *Birds of Passage: Migrant Labor in Industrial Societies*. Cambridge: Cambridge University Press.

Taylor, J. E. (1986) Differential migration, networks, information and risk, In Oded Stark (ed.), *Research in Human Capital and Development*, Vol. 4, Migration, Human Capital, and Development. Greenwich, Conn.: JAI Press, pp. 147-171.

Todaro, M. P. and L. Maruszko (1987) Illegal migration and US immigration reform: A conceptual framework. In *Population and development* review 13:101-14 (Accessed 30. 1. 2015) URL http://www.jstor.org/stable/1972122

Todaro, M. P. (1969) A Model of Labor Migration and Urban Unemployment in Less Developed Countries. In *American Economic Review*, 59(1): 138-148. (Accessed 30. 1. 2015) URL: http://www.jstor.org/stable/1811100

Todaro, M. P. (1976) Urban Job Expansion, Induced Migration and Rising Unemployment: A formulation and Simplified Empirical Test for LDCs. In *Journal of Development Economics*, 3: 211-225.

Todaro, M. P. (1989) *Economic Development in the Third Wold*, Fourth Edition. Longman. New York and London.

Toth et al. (2007) *Immigrant in Romania: Perspectives and Risks*. Bukurest. Soros Foundation Romania. (Accessed 30. 1. 2015) URL: http://www.fundatia.ro/publicatii.php?pag=2

UNCTAD statistics (c2013) *International Trade Indicators*. (Accessed 30. 1. 2015) URL: http://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx?sCS_ChosenLang=fr

Wallerstein, I. (1974) *The Modern World System, Capitalist Agriculture and the Origins of the European World Economy in the Sixteenth Century*. New York: Academic Press.

Zogata-Kusz, A. (2012). Theoretical Perspectives on Immigration Policy and Politics. In *Contemporary European Studies*. 1/2012, ISSN 1802-4289. (Accessed 30. 1. 2015) URL:http://aa.ecn.cz/img_upload/6334c0c7298d6b396d213ccd19be5999/zogata_kusz_-_theoretical_perspectives_on_immigration_policy_and_politics.pdf

Vinkhrov, D. (2013) *Welfare effects of labour migration*. WORKING PAPER SERIES (ISSN 1211-3298) CERGE-EI Prague, (Accessed 30. 1. 2015) URL: https://www.cerge-ei.cz/pdf/wp/Wp491.pdf