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**Attitudes towards Immigrants in Europe**

*Diplomová práce*

Praha 2017

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Rok obhajoby: **2017**

## **Prohlášení**

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V Praze dne 17.5.2017

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## **Poděkování**

Na tomto místě bych ráda poděkovala svému vedoucímu diplomové práce Mgr. Jiřímu Remrovi, Ph. D. a PhDr. Ing. Petru Soukupovi za odborné vedení, za pomoc a rady při zpracování této práce.

## PROJEKT DIPLOMOVÉ PRÁCE

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<b>Semestr:</b> LS
<b>Akademický rok:</b> 2015/2016
<b>Název práce:</b> Attitudes Towards Immigrants in Europe Postoje k imigrantům v Evropě
<b>Předpokládaný termín dokončení (semestr, školní rok):</b> LS 2016/2017
<b>Vedoucí diplomového semináře:</b> Mgr. Jiří Remr, Ph.D.
<b>Vedoucí práce (není povinné):</b>
<b>Zdůvodnění výběru tématu práce (5 řádek):</b> This topic is more important today than in the past. For many reasons more immigrants come to Europe today. Especially due to asylum seekers, the issue becomes one of the most important topics of public and political debate. Therefore, it is important to pay attention to what attitudes towards immigrants the residents of various countries in Europe have and what could be the reason for such attitudes.
<b>Předpokládaný cíl (5 řádek):</b> The main aim of the thesis is to evaluate the possible validity of the ethnic competition theory and the related theories on the data from European Social Survey 2013. Besides this, the thesis aims to describe the context of the subject. The secondary objective is to evaluate the individual patterns of attitudes towards immigrants and the presence of these patterns in groups of countries.
<b>Základní charakteristika tématu (10 řádek):</b> This topic gain more attention nowadays because, for various reasons, there are many immigrants coming to Europe. Attitudes towards immigrants include attitudes to both illegal and regular labor migrants and the specific category of immigrants, which are the asylum seekers who apply for international protection. Although today this subject gains greater importance in public debate not only within the European states, its exploration has a very long tradition. This topic has been studied not only in Europe but also in the United States and other countries at least from the 1950s. There are various reasons for the importance of exploring the attitudes toward immigrants. This topic is more and more important in public and political debate so many sciences such as sociology, media studies, political science begin to study the attitudes toward immigrants more.
<b>Předpokládaná struktura práce (10 řádek):</b> At first I will describe a framework of the issue such as quantity, nationality and an ethnic composition of immigration to the European countries and the history of immigration in various parts of Europe. I will then describe the various theories which try to explain attitudes toward immigrants not just in Europe. One of the theories is the ethnic competition theory. This theory states, that individuals have negative attitudes towards immigrants because they do not want to compete with them in areas such as the labor market, housing and welfare benefits. There are also many theories which clarify or deny this theory. Further I will



investigate if these theories are valid for the data from the European Social Survey 2013. I will also investigate individual patterns of immigration attitudes and their presence in particular countries.

**Základní literatura (10 nejdůležitějších titulů):**

**BRIDGES, Sarah a Simona MATEUT.** Should They Stay or Should They Go? Attitudes Towards Immigration in Europe. *Scottish Journal of Political Economy* [online]. 2014, 61(4), 397-429 [cit. 2016-05-22]. DOI: 10.1111/sjpe.12051.

**CEOBANU, Alin M. a Tanya KOROPECKYJ-COX.** Should International Migration Be Encouraged to Offset Population Aging? A Cross-Country Analysis of Public Attitudes in Europe. *Population Research and Policy Review* [online]. 2013, 32(2), 261-284 [cit. 2016-05-22]. DOI: 10.1007/s11113-012-9260-7.

**GREEN, Eva G. T.** Guarding the gates of Europe: A typological analysis of immigration attitudes across 21 countries. *International Journal of Psychology* [online]. 2007, 42(6), 365-379 [cit. 2016-05-22]. DOI: 10.1080/00207590600852454.

**HAINMUELLER, Jens a Michael J. HISCOX.** Educated Preferences: Explaining Attitudes Toward Immigration in Europe. *International Organization* [online]. 2007, 61(02), - [cit. 2016-05-22]. DOI: 10.1017/S0020818307070142.

**O'CONNELL, Michael.** Economic forces and anti-immigrant attitudes in Western Europe: a paradox in search of an explanation. *Patterns of Prejudice* [online]. 2005, 39(1), 60-74 [cit. 2016-05-22]. DOI: 10.1080/00313220500045287.

**PAAS, T. and V. HALAPUU.** Attitudes towards immigrants and the integration of ethnically diverse societies. *Eastern Journal of European Studies*[online]. 2012, 2012(3), 161-176 [cit. 2016-05-22].

**PARDOS-PRADO, Sergi.** Framing Attitudes Towards Immigrants in Europe: When Competition Does Not Matter. *Journal of Ethnic and Migration Studies* [online]. 2011, 37(7), 999-1015 [cit. 2016-05-22]. DOI: 10.1080/1369183X.2011.572421.

**SCHNEIDER, S. L.** Anti-Immigrant Attitudes in Europe: Outgroup Size and Perceived Ethnic Threat. *European Sociological Review* [online]. 2007, 24(1), 53-67 [cit. 2016-05-22]. DOI: 10.1093/esr/jcm034.

**SEMYONOV, M. and A. GLIKMAN.** Ethnic Residential Segregation, Social Contacts, and Anti-Minority Attitudes in European Societies. *European Sociological Review* [online]. 2009, 25(6), 693-708 [cit. 2016-05-22]. DOI: 10.1093/esr/jcn075.

**ZICK, Andreas, Thomas F. PETTIGREW a Ulrich WAGNER.** Ethnic Prejudice and Discrimination in Europe. *Journal of Social Issues*[online]. 2008, 64(2), 233-251 [cit. 2016-05-22]. DOI: 10.1111/j.1540-4560.2008.00559.x.

Podpis studenta a datum

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Vedoucí diplomového semináře		
Garant oboru		

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# Introduction

The aim of this thesis is to determine what affects cross-national differences in attitudes towards immigrants and immigration in Europe while using theoretical framework of the Ethnic Competition Theory, the Human Capital Theory, and other related theories. The topic of attitudes towards immigrants and immigration is important today because new immigrants arrive to Europe and attitudes towards them are changing in a negative way. This topic becomes one of the most important topics of public and political debate today. Therefore, it is important to pay attention to attitudes of the majority population of various countries in Europe towards immigrants and immigration, and to what can be the reasons for such attitudes. Exploration of this topic gains greater importance today, but it has a very long tradition. This topic has been studied at least since the 1950s.

There are many often repeated results of studies on attitudes towards immigrants and immigration on individual level. More educated and high-skilled people tend to have more positive attitudes towards immigrants and immigration (e.g. Schneider 2008, p. 60; Scheepers et al. 2002, p. 25-27; Hainmueller and Hiscox 2007, p. 414-16; Semyonov and Glikman 2009, p. 700; Paas and Halapuu 2012, p. 169; Pardos-Prado 2011, p. 1007). Conversely older people (e.g. Hainmueller and Hiscox 2007, p. 416; Paas and Halapuu 2012, p. 169) and people in smaller settlements (e.g. Scheepers et al. 2002, p. 27; Bridges and Mateut 2014, p. 413; Semyonov and Glikman 2009, p. 700; Paas and Halapuu 2012, p. 169) tend to have more negative attitudes towards immigrants and immigration. On the other hand, people with more frequent contact with immigrants tend to hold more positive attitudes towards them (e.g. Quillian 1995, p. 599; Escandell and Ceobanu 2009, p. 59; Semyonov and Glikman 2009, p. 696).

In the thesis, we will describe selected theories which try to explain cross-national differences in attitudes towards immigrants and immigration, and studies on this topic. The first theory is the Ethnic Competition Theory. This theory states that members of majority population hold more negative attitudes towards immigrants and immigration because they have to compete with them, especially in economic area. Therefore, economically vulnerable people and people from poorer countries should hold more negative attitudes towards immigrants and immigration. On the other hand, the Human Capital Theory states that negative attitudes of majority population towards



immigrants and immigration are not due to labor market competition, but due to other factors like education.

The main sources for this thesis are the dissertation by Marcel Theodorus Aloysius Coenders (2001) 'Nationalistic attitudes and ethnic exclusionism in a comparative perspective. An empirical study of attitudes toward the country and ethnic immigrants in 22 countries' and the study 'Educated Preferences: Explaining Attitudes toward Immigration in Europe' by Jens Hainmueller and Michael J. Hiscox (2007). To this day, there are many studies on cross-national differences in attitudes towards immigrants and immigration.

The Ethnic Competition Theory employs both individual and country level variables. On the individual level it states that attitudes of the people towards immigrants are due to their economic vulnerability. The economic vulnerability is usually measured by using independent variables education, income, or unemployment. It is not easy to determine to what extent each of these variables influences attitudes towards immigrants, because the variables are closely associated. The Human Capital Theory proposes that the explanation for differences in attitudes towards immigrants does not lie in the economic vulnerability, but in education.

Our first individual level hypothesis is based on the Ethnic Competition Theory and states: Economically vulnerable people will hold more negative attitudes towards immigrants, particularly (1a) the lower the household income of the individual is, the more negative his or her attitudes towards immigrants are, (1b) the less years of education the individual has, the more negative his or her attitudes towards immigrants are, (1c) unemployed people hold more negative attitudes towards immigrants than people who are not unemployed. The second individual level hypothesis is based on the Human Capital Theory and it states that (2a) the less years of education the individual has, the more negative his or her attitudes towards immigration of unskilled workers are; (2b) the more years of education the individual has, the more negative his or her attitudes towards immigration of professionals are.

According to the Ethnic Competition Theory, competition may also take place on contextual (country or region) level. Competition on contextual level is usually measured by GDP per capita and proportion of immigrants in the country. The assumption of influence of these two variables on attitudes towards immigrants have not been sufficiently explained yet. Some studies on cross-national differences in attitudes towards immigrants also examine an effect of migrant integration

policy of a country on attitudes towards immigrants in the country. Some scholars state that more permissive immigration policy of the country should lead to more negative attitudes towards immigrants in the country, because it requires greater public investments. Therefore, it causes greater competition between the majority population and immigrants. We build on this assumption in this thesis.

The contextual level hypotheses are based on the Ethnic Competition Theory. The third hypothesis states: the higher proportion of non-EU born immigrants the country has, the more negative attitudes towards immigrants in the country are. The fourth hypothesis states that the worse the economic performance of the country is, the more negative attitudes towards immigrants in the country are. Finally, the fifth hypothesis states that the higher the Migrant Integration Policy Index of the country is, the more negative attitudes towards immigrants in the country are.

Multilevel models are used to test the hypotheses based on the Ethnic Competition Theory and the Human Capital Theory. For the analysis, we use individual level data from European Social Survey 2014/2015, and country level data from World Bank/Eurostat. The data analysis is performed in SPSS. Hierarchical Linear Modeling is used to test the hypotheses derived from the Ethnic Competition Theory and Multilevel Logistic Regression is used to test the hypotheses derived from the Human Capital Theory.

# 1. Literature Review

In this thesis, we use the Ethnic Competition Theory, the Human Capital Theory, and other related theories to explain cross-national differences between attitudes towards immigrants. First, we describe the basics of the Ethnic Competition Theory. Second, we focus on the Human Capital Theory, which is in competition with the Ethnic Competition Theory on the individual level. Third, we describe the basics of the Intergroup Contact Theory and other control variables, which we include into the analysis. Finally, we focus on some aspects of previous research on this topic.

## 1.1. The Ethnic Competition Theory

The theory tries to explain cross-national differences in negative attitudes towards other ethnic groups. It was proposed in recent studies (Coenders and Scheepers, 1998; Coenders 2001, Scheepers et al. 2002), especially in the dissertation by Coenders (2001) ‘Nationalistic attitudes and ethnic exclusionism in a comparative perspective. An empirical study of attitudes toward the country and ethnic immigrants in 22 countries’. The Ethnic Competition Theory is a combination of Realistic Conflict Theory and Social Identity Theory. According to the Ethnic Competition Theory the need of individual to identify with in-group and contra-identify with outgroup intensify under competitive conditions. Therefore, the Social Identity Theory is complementary to propositions from the Realistic Conflict Theory. (Coenders 2001, p. 41; Scheepers et al. 2002, p. 18)

### 1.1.1.1. The Realistic Conflict Theory

The first theory which is a component of the Ethnic Competition Theory, is the Realistic Conflict Theory. The Realistic Conflict Theory states that when there is a competition over scarce resources between groups, attitudes towards out-groups become more negative (McLaren 2003, p. 915; Scheepers et al. 2002, p. 18; Quillian 1995, p. 588). The conflict over resources between groups is assumed to be rational. The amount of resources is limited and groups have to compete for them. This competition leads to more negative attitudes of the majority population towards outgroups. According to Coenders (2001, p. 14) realistic group conflict theory is: “an economic theory of inter-group attitudes and behavior, based on a more or less rational view of humankind.” This theory states that relations between groups are more important source of intergroup conflicts than individual psychological predispositions (Blumer 1958, p. 3; Coenders 2001, p. 14).

The term realistic-group-conflict theory was first expressed by Campbell (1965, p. 286-287), but the idea that real competition between groups causes negative attitudes towards immigrants was present also in earlier studies. According to Scheepers (2002, p. 18) and Coenders (2001, p. 13) the Realistic Conflict Theory is based on two traditions. Social psychologists focused on the effects of intergroup competition and conflicts of interests on intra- and inter-group relations, when sociologists focused on the sources of intergroup competition and conflicts of interests in real life situations (Coenders 2001, p. 13).

The first tradition on which the Realistic Conflict Theory is based comes from social psychological experiments (Coenders 2001, p. 15; Scheepers et al. 2002, p. 18). This tradition began with experiments by Mustafa Sherif and his associates (Coenders 2001, p. 15). In the experiments, two groups of boys were exposed to competitive conditions between them while the contact between group members was restricted. These experiments show that when the conditions of contact between two groups are competitive there appear favoritism of the in-group and unfavorable stereotypes of the out-group (Sherif and Sherif 1953; Sherif et al. 1955; Sherif et al. 1961). In the experiments unfavorable attitudes appeared even when the members of the two groups did not differ in their background, physical and personal characteristics, were socially well adjusted and had not experienced undue frustration in their life histories. (Sherif and Sherif 1979, p. 158-160; more on this topic also Coenders 2001, p. 15)

The second tradition on which the Realistic Conflict Theory is based, is sociology of conflict (Coenders 2001, p. 13; Scheepers et al. 2002, p. 18). The sociological tradition have focused on the sources of intergroup competition and conflicts (Coenders 2001, p. 13). One of the important sociologists of conflict is Lewis Coser and his work *The Function of Social Conflict*, where he partly builds on work of George Simmel. According to Lewis Coser, solidarity within the group increases, when the group faces an attack from another group (Coser 1956, p. 96). He states that conflicts between groups may be about power, wealth or status (Coser 1957, p. 198). Coser also addressed positive aspects of the conflicts. According to him, distinction between in-group and outgroups is established in and through conflict (Coser 1956, p. 35). He also distinguished realistic and non-realistic conflict. Realistic conflict is a conflict for specific resources which aims at specific results and non-realistic conflict does not aim on specific results but serve to release tension of at least one of the groups (Coser 1956, p. 49).

One of the important authors for the Realistic Conflict Theory is Herbert Blumer, who opposed earlier individual-level explanation of prejudice. Blumer states in his study 'Race Prejudice as a Sense of Group Position': "My thesis is that race prejudice exists basically in a sense of group position rather than in a set of feelings which members of one racial group have toward the members of another racial group." Blumer refers specifically to prejudice to racial outgroups in his paper refers, not to any outgroups. According to him, the source of prejudice is a perceived challenge to the group position, for example challenge to power and privilege or economic competition. Bobo (1983, p. 1197) modifies Blumer's approach and states that there has to be a conflict about "real resources and accepted practices" between groups to cause negative attitudes towards out-groups. For detailed accounts see for example Blumer (1958), Bobo (1983), Coenders (2001), McLaren (2003), or Quillian (1995). (Blumer 1958, p. 3-5)

Another important author for this theory Hubert Blalock suggested that majority-minority group relations can be caused on contextual and/or on individual level (Blalock 1967, p. 21-26). On the contextual level, competition can be higher, for example, when the resources are scarce and rival groups have sharply different cultures and practices (Blalock 1967, p. 78). On the individual level, the individuals from the majority population may be afraid of economic competition from the minority population (Blalock 1967, p. 29). Blalock also distinguished actual and perceived competition (Blalock 1967, p. 102). According to him, prejudice and discrimination are affected by the amount of perceived competition, which is caused by actual competition, visibility of minorities and personality variables (Blalock 1967, p. 102). There is no consensus in the literature whether or not the threat from ethnic out-groups must be real or can be just perceived (Coenders 2001, p. 32).

The Realistic Conflict Theory states that intergroup competition leads to more negative attitudes towards out-groups. The question is what factors cause perception of threat. Currently, most scholars are interested in contextual as well as individual sources of threat perception. Coenders (2001, p. 37) states that individual and contextual sources of threat are complementary. Among others, Quillian (1995, p. 589) proposes that on contextual level, the perceived threat is due to relative size of the subordinate group and economic circumstances. Another line of studies propose an influence of fiscal burden of immigration on public services as source of perceived threat on the contextual level (Hainmueller and Hiscox 2010, p. 61). On the individual level, it is expected that

more economically vulnerable people will perceive greater threat from immigrants. “The prominent labor market competition model predicts that natives will be most opposed to immigrants who have skill levels similar to their own” (Hainmueller and Hiscox 2010, p. 62). We devote to this topic further in the section 1.1.2., and 1.1.3.

Although the Realistic Conflict Theory has a better practical application for explanation of attitudes towards immigrants, “The notions of social identity theory and realistic group conflict theory can be regarded as complementary to one another, and can be synthesized into a general framework labelled as ethnic competition theory” (Coenders 2001, p. 118). In the practical part of this thesis we test hypotheses based mainly on this part of the Ethnic Competition Theory. The hypotheses are based on the idea that certain contextual and individual variables can cause higher competition between groups, therefore negative attitudes towards immigrants. We pay attention to the choice of the variables in the sections 1.1.2. and 1.1.3. of the thesis. We describe the Social Identity Theory in the next part of the thesis.

#### **1.1.1.2. The Social Identity Theory**

The second theory on which the Ethnic Competition Theory is based is the Social Identity Theory. Tajfel and Turner (1979; Tajfel 1981, 1982; Turner 1982) expressed the Social Identity Theory. They state that people prefer their in-group over other groups (Tajfel and Turner 1979, p. 39). People define themselves and others in terms of the social groups to which they belong to. People identify themselves with their in-group and contra-identify with the out-groups (Scheepers et al. 2002, p. 18). Therefore a group categorization is necessary for identity of the people. According to Scheepers (2002, p. 18), “individuals have a fundamental need to perceive their in-group as superior to ethnic out-groups”. The mere identification with a group may not be harmful, but it can have important effects on behavior towards out-groups (Weldon 2006, p. 332).

The Social Identity Theory builds on previous studies in social psychology (Sherif and Sherif 1953; Sherif et al. 1955; Sherif et al. 1961) that intergroup competition leads to outgroup hostility. These studies gave rise to a question of whether intergroup competition is a necessary condition for in-group favoritism and outgroup hostility. Some scholars addressed this question in their experiments (among others Tajfel and his colleagues). They conducted experiments with ad hoc laboratory groups, with no or hardly any interaction within and between groups. (Coenders 2001, p. 16-17)



According to Tajfel the previous studies show that:

... the mere perception of belonging to two distinct groups - that is, social categorization per se - is sufficient to trigger intergroup discrimination favoring the in-group. In other words, the mere awareness of the presence of an out-group is sufficient to provoke intergroup competitive or discriminatory responses on the part of the in-group. (Tajfel 1979, p. 38)

Therefore, according to this theory the intergroup competition is not a necessary condition for negative perception of the outgroup (Coenders 2001, p. 20). More on this topic for example Coenders (2001, p. 17-20).

We do not directly test the Social Identity Theory in this thesis. On the other hand, some studies use this theory to explain effect of integration policies of the countries on attitudes towards immigrants in these countries (more about this topic in section 1.1.2.). In the next part of the thesis, we focus on the specific variables, which are used in cross-national studies of differences in attitudes towards immigrants. First, we are interested in contextual level variables. We pay attention to variables which are, according to the Ethnic Competition Theory, expected to cause negative attitudes towards immigrants through higher competition between majority population and immigrants.

### **1.1.2. Contextual Level**

Here we focus on the specific variables, which are expected to cause higher competition between the majority population and out-groups. These variables lead to higher threat perceptions, therefore negative attitudes towards immigrants among the majority population. On the contextual level, the competition can occur in different areas, but economic area is the most discussed one. We are also interested in possible contextual economic sources of competition/perceived threat in this thesis. We follow the distinction between contextual and individual level sources of competition/threat perception in this thesis. Quillian (1995, p. 586) stresses the importance of impact of contextual level variables on prejudice towards out-groups: "... the focus on individual characteristics and relations omits an important source of dominant-group prejudice: the perception by the dominant group that an outside group threatens their group's prerogatives."

Quillian (1995, p. 586) develops a theory of prejudice towards out-groups based on collective threat. He states that "... collective threat is a function of two factors: the numerical size of the subordinate group relative to the dominant group, and economic circumstances" (Quillian 1995, p. 586). Many other studies follow this study by using at least these two contextual variables (for example Schneider 2008, p. 61; Hjerm 2007, p. 1268; Semyonov et al. 2008, p. 17; Rustenbach 2010, p. 65). Similarly Coenders states:

Firstly, the larger the relative number of competitors from an ethnic out-group, the stronger the competition between ethnic in-group and out-group, since more ethnic out-group members compete with the ethnic in-group for, *ceteris paribus*, the same amount of scarce resources. Secondly, the stronger the scarcity of valuable goods that is at stake in the competition, the stronger the competition between ethnic in-group and out-group. Thirdly, the degree of ethnic competition is also affected by political conditions, regulating the distribution of scarce resources. That is, policies regulating market mechanisms in general, and policies aimed at assisting ethnic minorities in particular. (Coenders 2001, p. 30)

We also use these contextual variables in this thesis. As regards economic conditions in the country, it can be inferred that perceived economic competition between the majority population and out-groups should be higher in countries with worse economic conditions, because competition for the resources between groups is expected to be higher in these countries (see Barceló 2016, p. 94; Davidov and Meuleman 2012, p. 761-762; Hjerm 2007, p. 1257; McLaren 2003, p. 918; Quillian 1995, p. 590; Pardos-Prado 2011, p. 1000; Ruist 2016, p. 125; Semyonov et al. 2008, p. 7). Most of the previous studies use GDP per capita to measure economic conditions of the countries (see Quillian 1995, p. 594; Schneider 2008, p. 61; Semyonov et al. 2008, p. 19; Barceló 2016, p. 97-98; Hjerm 2007, p. 1268) and we follow these studies in this thesis. Some studies measure economic conditions in the country by GDP and unemployment and some studies (for example Schlueter et al. 2013, p. 674) use just unemployment rate in the country to measure its economic conditions.

Most of the previous cross-national studies on attitudes towards immigrants include a measure of GDP of the country to the analysis at the contextual level as one of the predictors of competition in the country. However, the studies do not show conclusive results as regards whether the economic conditions in the country affect attitudes towards immigrants in the country (see Ruist 2016, p. 125). For example in the study by Quillian (1995, p. 594) worst economic conditions of

the country (measured as GDP per capita) lead to higher prejudice towards immigrants and other races in the country. Schneider (2008, p. 59-61) also uses GDP per capita to measure economic conditions of the country and the threat perceptions (measured with FIOS index) in the country are higher in poorer countries. In the study by Semyonov et al. (2008, p. 18) lower GDP per capita leads to more negative attitudes towards foreigners. On the other hand, for example in the study by Hjerm (2007, p. 1269), higher GDP per capita, PPP, is not a statistically significant predictor of xenophobia. Also the study by Barceló (2016, p. 98-105) shows inconclusive results whether economic conditions of the country affect attitudes towards immigrants and immigration.

Ruist (2016, p.125) states that the results can be inconclusive, because they studied few highly heterogeneous countries, hence cross-national identification strategies are vulnerable to bias from omitted country-specific factors. Therefore, his study uses a different approach and examines the effect of economic conditions of the countries on attitudes towards immigrants and immigration over several years for each country. His results indicate, that macroeconomic downturn lead to more negative attitudes towards immigration. (Ruist 2016, p. 133)

As regards size of the out-groups, competition between majority population and out-groups should be higher when the size of out-group in the country is bigger (Blalock 1956, p. 584; Schneider 2008, p. 54; Hjerm 2007, p. 1265; Quillian 1995, p. 591). Blalock (1956, p. 584) states that: "... under certain conditions a large number of minority members or a rapid rate of increase may lead to a high degree of prejudice." The resources in the countries are limited and higher proportion of out-groups in the country can lead to greater competition between them and the majority population.

Many cross-national studies on attitudes towards immigrants also include percentage of the immigrants in the countries as one of the measures of competition between out-groups and the majority population. However, the studies do not show conclusive results as regards whether the percentage of members of out-groups in the country actually affect attitudes towards immigrants in the country amongst the majority population. For example in the study by Schneider (2008, p. 61-62) when the percentage of non-EU immigrants in the country is higher, ethnic threat perceptions in the country are higher. On the other hand, the study by Hjerm (2007, p. 1269) includes variable proportion of foreign-born population in the country and this variable is not a statistically significant predictor of xenophobia in his research. Also, in the study by Rustenbach

(2010, p. 64-65) percentage of immigrants is not statistically significantly correlated with anti-immigrant attitudes. We will also include percentage of non-EU population in the countries in this thesis.

As regards immigration policies measures, some scholars include them as one of the measures of competition between out-groups and the majority population (e.g. Schlueter et al. 2013, p. 671; Wright 2009, p. 9). They state that more permissive migrant integration policy of the country causes that the majority population perceives greater threat from the immigrants. First, this assumption can be based on an idea derived from the Realistic Conflict Theory that more permissive migrant integration policies cost public finance more money, which means greater competition between the out-groups and majority population (Schlueter et al. 2013, p. 671). Second, the competition between the majority population and out-groups can be based on the Social Identity Theory. More permissive migrant integration policy of the country can threaten identity of the majority population, because it involves weakening of the national values in favor to the respect to minorities (Wright 2009, p. 9). Based on these ideas, people should hold more negative attitudes towards immigrants in the countries where the immigration policies are more permissive. We also try to determine the effect of migrant integration policies on attitudes towards immigrants in this thesis based on the Ethnic Competition Theory.

On the other hand, some scholars propose that when the immigration policy of the country is more permissive towards immigrants, attitudes towards them in the country will be more positive. This idea is based on literature on social norms and on political socialization (Schlueter et al. 2013, p. 671; Bello 2016, p. 204; Almond and Verba, 1963, cited in Weldon 2006, p. 335). The social norms literature presupposes that members of majority group change their attitudes towards immigrants in response to legislative measures, because they do not want to deviate from a social norm (Schlueter et al. 2013, p. 672). Literature on political socialization states that people learn the values derived from the official migrant integration policies through socialization, therefore their attitudes towards immigrants depend on the official policy of the country (Schlueter et al. 2013, p. 672; Weldon 2006, p. 335).

However, attitudes towards immigration can influence immigration policies of the countries. Voters can vote for political parties which promote the rate and composition of migration they prefer. The public can also influence the immigration policies by political activism. For example,

Facchini and Mayda (2009, p. 685) state that voters influence policies connected to levels of immigration to the countries. They performed one of the first analysis of how individual attitudes towards immigrants translate into migration policy outcomes (Facchini and Mayda 2009, p. 684). They presuppose that when the median voter in the country is unskilled, he will prefer immigration of skilled workers and when the median voter is skilled, he will prefer immigration of unskilled workers (Facchini and Mayda 2009, p. 685).

To this day, there are not many studies that are interested in the effect of immigration policies of the countries to attitudes towards immigrants of the majority population in the countries. Furthermore, the studies, which exist have some disadvantages. Some studies are interested in the effect of possibility of immigrants to acquire citizenship in the country to attitudes towards immigration in the country. We propose that it is more proper to include wider migrant integration policy measure than acquiring citizenship. Another line of research tries to determine an effect of degree of multiculturalism in the country to attitudes towards immigrants, but these studies also have some disadvantages.

The study *The Institutional Context of Tolerance for Ethnic Minorities: A Comparative, Multilevel Analysis of Western Europe* by Steven A. Weldon investigates 15 Western European countries (Weldon 2006). One disadvantage of the study for this thesis is that Weldon is interested in political and social tolerance of the majority population. Therefore, the dependent variables focus on something else than the general attitudes towards immigrants or perceptions of threat from immigrants in the country. Moreover, this study is criticized for the low number of included countries. Another study *Citizenship Regimes and European Attitudes on Immigrant Diversity* by Matthew Wright (2009) investigates attitudes towards immigration in conjunction with country multiculturalism. He finds difference between attitudes of people in countries that have adopted multiculturalism in comparison to the countries that did that to a lesser extent (Wright 2009, p. 1). Advantages of this study are that it defines multiculturalism as government policy and it uses citizenship and multiculturalism to measure the policy of the country. The disadvantages of this study for this thesis are that the study divides European countries just into three categories by multicultural policies and it uses a measure for attitudes towards immigration and not towards immigrants.

There are not many studies, which investigate association between attitudes towards immigrants in the country with a more complex index of immigration policy in the country. One study focused on this topic is the study *Immigrant Integration Policies and Perceived Group Threat* by Elmar Schlueter, Bart Meuleman, and Eldad Davidov (2013). This study uses multi-level analysis. A drawback of the study is that the authors do not include a measure for GDP of the country into the analysis. In accordance with some earlier studies, they use unemployment rate in the country to measure its economic conditions instead. The results of the study show that less permissive immigrant integration policies (using MIPEX) lead to higher perceived group threat.

As we stated in this part of the thesis, we include contextual variables GDP per capita, PPP; percentage of non-EU population in the country and MIPEX to the analysis. Based on theory and previous research, we predict that lower GDP per capita, PPP; higher percentage of non-EU immigrants; and higher MIPEX of the country lead to higher competition between majority population and out-groups in the country, therefore to more negative attitudes towards immigrants. The first two variables are widely used to study cross-national differences in attitudes towards immigrants, but their effect on attitudes towards immigrants is not sufficiently explored yet. Second, there are not many studies which are interested in the effect of migrant integration policy of a country to attitudes towards immigrants in the country. We show methodology and results of the analysis further in this thesis. In the next part of the thesis, we describe several individual level variables which are used in cross-national studies on attitudes towards immigrants. The described variables are, according to the Ethnic Competition Theory, expected to cause negative attitudes towards immigrants through higher competition between members of majority population and immigrants.

### **1.1.3. Individual Level**

As regards the individual level of the Ethnic Competition Theory, economic area is also the most discussed one. We are also interested in individual economic sources of competition/perceived threat in this thesis. The competition in economic area is mostly viewed within labor market. According to the Realistic Conflict Theory, the labour market competition between the members of the majority population and out-groups is one of the main reasons why low educated/skilled people hold more negative attitudes towards immigrants.



It is often stated that less educated/skilled members of majority population should hold more negative attitudes towards immigrants, because they have to compete for jobs with them (for example Coenders 2001, p. 37; Gorodzeisky 2013, p. 797; Schneider 2008, p. 55; Scheepers et al. 2002, p. 19; Semyonov et al. 2006, p. 428; Schlueter and Scheepers 2010, p. 286). The low skilled members of the majority population feel that they can lose their jobs or their wages can reduce because of the immigrants (see Schneider 2008, p. 55; Semyonov et al. 2006, p. 428; Gorodzeisky 2013, p. 797; Schlueter and Scheepers 2010, p. 286). On the other hand, according to Hainmueller and Hopkins (2014, p. 3) there is little evidence that individual economic self-interest influences attitudes towards immigrants. The topic of economic competition between the majority population in the country and out groups is more developed in later economic competition theories. More about these theories for example Mayda (2006), Scheve and Slaughter (2001), Hainmueller and Hiscox (2010).

Many of the studies of the effect of skill level of the majority population members on attitudes towards immigrants build on assumption that immigrants hold lower level of education than the majority population. On average, foreign-born population in European countries is less educated than the majority population (Eurostat 2016a - data for 2014, for people aged 25-54). On the other hand, majority population in many countries included to the analysis in this thesis is less educated than foreign-born population in the countries. Immigrants are more educated than the majority population in Estonia, Ireland, Lithuania, Hungary, Poland, Portugal, and United Kingdom (Eurostat 2016a - data for 2014, for people aged 25-54). Therefore, it is not clear that the foreign-born population in Europe mainly represents competition (threat) for less educated and less skilled members of the in-group population, how is often stated. However, we performed linear regression in each country included to the analysis, and higher education leads to more positive attitudes towards immigrants (even in the countries, where the education level of immigrants is higher than the education level of the majority population).

Studies, which focus on the effect of individual characteristics of the respondents on attitudes towards immigrants, have continuously observed that negative attitudes towards immigrants are higher among individuals with low levels of education (e.g. Hainmueller and Hiscox 2007, p. 414-16; Schneider 2008, p. 60; Chandler and Tsai 2001, p. 186; Scheepers et al. 2002, p. 25-27; Semyonov and Glikman 2009, p. 700; Paas and Halapuu 2012, p. 169; Pardos-Prado 2011, p.

1007). For example Scheepers et al. (2002, p. 25-27) finds that people with low level of education tend to favour ethnic exclusionism. Semyonov and Glikman (2009, p. 700) find that anti-minority attitudes are likely to decline with higher education. Schneider (2008, p. 60) finds that people with fewer years of education tend to have higher tendency to perceive collective ethnic threat. According to Rustenbach (2010, p. 63-4), higher education is connected to more pro-immigrant attitudes. Pardos-Prado (2011, p. 1007) finds that people with fewer years of education hold more negative attitudes towards immigrants.

Similarly, the studies have observed that negative attitudes towards immigrants are positively correlated with low socioeconomic status (e.g. Schneider 2008, p. 60; Scheepers et al. 2002, p. 25-27; Hainmueller and Hiscox 2007, p. 414-16; Semyonov and Glikman 2009, p. 700; Paas and Halapuu 2012, p. 169; Pardos-Prado 2011, p. 1007). For example Bridges and Mateut (2014, p. 409) find that individuals with higher income tend to less oppose further immigration. Schneider (2008, p. 60) finds that relatively poorer people tend to have higher tendency to perceive collective ethnic threat. Pardos-Prado (2011, p. 1007) finds that manual workers and people with lower ISEI index hold more negative attitudes towards immigrants. Scheepers et al. (2002, p. 25-27) finds that manual workers and people with lower income tend to favour ethnic exclusionism. Semyonov and Glikman (2009, p. 700) find that anti-minority attitudes are negatively correlated with higher income.

The second individual predictor of competition between majority population and out-groups according to some of the studies on the Ethnic Competition Theory is individual unemployment. The Ethnic Competition Theory predicts that unemployed people will have more negative attitudes towards immigrants, because they have to compete for jobs with them and are more vulnerable on the labour market. However, the studies do not show conclusive results. For example, in the study by Scheepers et al. (2002, p. 25-27) unemployment is positively correlated with favouring the ethnic exclusionism. In the study by Semyonov and Glikman (2009, p. 700) unemployment is connected with anti-minority attitudes. On the other hand, in the study by Pardos-Prado (2011, p. 1007) unemployment has not been proven as a statistically significant predictor of FIOS index score. Also in the study by Rustenbach (2010, p. 63-4), unemployment is not statistically significantly connected with anti-immigrant attitudes.

As we stated in this part of the thesis, we include individual variables education, income and unemployment to measure economic vulnerability of the person. This economic vulnerability should lead to more negative attitudes of the person towards immigrants. Education, income, and unemployment are widely used to study cross-national differences between attitudes towards immigrants. Education and income seem to be important predictors of attitudes towards immigrants, while the effect of unemployment is not constant among studies. We include also other individual variables into the analysis (control variables and variables based on the Intergroup Contact Theory). More about the independent variables in the section 3.2.2. of the thesis. We describe the Human Capital Theory in the next part of the thesis.

## 1.2. The Human Capital Theory

The Human Capital Theory is in opposition to the Ethnic Competition Theory on the individual level. Previous studies show that there is an association between education of the person and his or her attitudes towards immigrants and immigration. More educated individuals tend to hold more positive attitudes towards immigrants and immigration (e.g. Schneider 2008, p. 60; Scheepers et al. 2002, p. 25-27; Hainmueller and Hiscox 2007, p. 414-16; Hainmueller and Hiscox 2010, p. 79; Semyonov and Glikman 2009, p. 700; Paas and Halapuu 2012, p. 169; Pardos-Prado 2011, p. 1007). Nevertheless, it is not known if this effect of education is universal or if it varies across countries, because there are not enough cross-national comparative studies on this topic (Coenders 2001, p. 93).

It is well known that there is an association between a skill level/income of the person and his or her level of education. There emerges a question if it is the position on the labour market or the education which affects attitudes towards immigrants (see Barceló 2016, p. 89, Ceobanu and Escandell 2010, p. 319, Espenshade and Calhoun 1993, p. 195, Hainmueller and Hiscox 2007, p. 405, Paas and Halapuu, p. 164, Rustenbach, p. 56). The labour market explanation states that members of majority population hold more negative attitudes towards immigrants and oppose further immigration, because they have to compete with immigrants on labor market (more about this topic in the section 1.1.). One of the often offered explanation of the association between education and attitudes towards immigrants is that people have low-skilled immigrants in mind when asked about immigration (Hainmueller and Hiscox 2010, p. 64). More educated people compete with high-skilled immigrants on labor market, therefore they state more positive attitudes towards immigrants when the skill level of the immigrants is not specified.

Some scholars suggest another explanations for the association between education/skill level and attitudes towards immigrants than labor market competition. According to them, position on labor market is not the reason why low-skilled people hold more negative attitudes towards immigrants. It is an education, which causes that more educated people hold more positive attitudes towards immigrants (i.a. Hainmueller and Hiscox 2007, p. 405). One of the theories which tries to explain this association, is sometimes called the Human Capital Theory (see Rustenbach 2010, p. 56; Paas and Halapuu, p. 164). According to this theory, education does not affect attitudes towards

immigrants through people's skill level and related competition on labor market, but it affects attitudes towards immigrants directly.

The thought that education leads to more tolerant attitudes towards outgroups is known for a long time (Vogt1983, p. 41). But there is not a clear explanation for this association yet. The Human Capital Theory states that education leads to more positive attitudes towards immigrants, because it teaches people to be more tolerant and respect otherness. According Paas and Halapuu (2012, p. 164, 405) education broadens people's horizons and leads to higher preference for cultural diversity. Barceló (2016, p. 89) states that education increases reflexivity and open-mindedness. Espenshade and Calhoun (1993, p. 195) propose that higher education can lead to: "more enlightened perspective that is less vulnerable to the narrow appeals of intergroup negativism".

There are various theories which try to explain the association between education and attitudes towards immigrants or immigration. One of these theories is socialisation theory. This theory states that educational institutions transmit norms, values, and models of behavior of the society to the students. The negative association between education and ethnic exclusionism is particularly due to the dissemination of democratic value orientations in the educational system (Selznick and Steinberg, 1969, cited in Coenders 2001, p. 96). Another interpretation of the association between attitudes towards immigrants and education stresses an importance of cognitive component of these attitudes. Ethnic stereotypes and xenophobic beliefs are simplifications of social reality. More educated people reject such attitudes, because education leads to transfer of knowledge and information, development of cognitive capacities, and transfer of norms, values, and models of behavior. (Coenders 2001, p. 96)

According to Hellwig and Kweon (2016, p. 712) the attitudes towards immigration are formed by trusted political elites and are more easily accepted by the more educated members of society. Less educated members of majority population receive less information and are more likely to view consequences of immigration in single-dimensional terms (Hellwig and Kweon 2016, p. 712).

### **1.2.1. Research of the Human Capital Theory**

According to Hainmueller and Hiscox (2010, p. 61) the available data on individual attitudes towards immigrants were not suitable for testing the theoretical assumptions if it is the labor-market competition or non-economic factors, which cause negative attitudes towards immigrants. Previous

studies assume that respondents have low-skilled immigrants in mind when they answer questions about immigration in general. This assumption is questionable, because respondents may have systematically varying views on skill level of immigrants. Distinction between attitudes towards low-skill and high-skill immigrants is needed to test the theoretical assumptions. (Hainmueller and Hiscox 2010, p. 64)

Hainmueller and Hiscox (2010, p. 61) state that the studies which deal with the question of how native citizens with different skill levels differ in their attitudes towards immigration of different skill levels of immigrants are limited to test the assumptions only indirectly due to data constraints.

In particular, no study to date has been able to distinguish between attitudes toward highly skilled immigrants and attitudes toward low-skilled immigrants, even though this distinction is a critical feature of the theoretical story about how economic concerns affect attitude formation and policy preferences with respect to immigration (Hainmueller and Hiscox 2010, p. 61).

The distinction of attitudes of different skill level natives to different skill level immigrants is important when we want to determine the influence of labor market competition on attitudes towards immigrants. The labour market explanation states that members of majority population oppose immigration, because they have to compete with immigrants on labor market. Therefore, people should perceive threat from immigrants of their skill level, but should not perceive threat from immigrants of different skill levels. In our knowledge, there are not many studies which directly test the effect of different skill levels of members of the majority population on their attitudes towards immigrants of different skill levels.

Two studies by Hainmueller and Hiscox (2007; 2010) try to test this influence. In this thesis, we build on their study Educated Preferences (Hainmueller and Hiscox 2007). The study tests if attitudes towards immigrants are influenced by labor-market competition or by different factors as education. Within the labor-market competition theory, for example O'Rourke and Sinnott (2006, p. 840) state that when new skilled workers come to the country it will raise unskilled wages and lower skilled wages in that country. Mayda states that:

... standard trade and labor-economics theories of labor market, such as the Heckscher-Ohlin model and the factor-proportions-analysis model, predict that immigration attitudes



depend on the impact on factor prices of changes in relative factor supplies due to immigration. ... assuming that the capital is internationally mobile, the correlation between immigration attitudes and individual skill should be related to the skill composition of natives relative to immigrants in the destination country. Assuming that the skilled and unskilled labor are complements, skilled individuals should favor immigration if natives are more skilled than immigrants, because in this case immigration reduces the supply of skilled relative to unskilled labor and raises the skilled wage. The opposite is true for countries where natives are less skilled than immigrants. (Mayda 2006, p. 510)

Hainmueller and Hiscox (2007, p. 409; 2010, p. 62) build on this assumption and state that if the competition theory is valid, the high educated and highly skilled members of the majority population should oppose immigration of highly skilled and educated immigrants, because they compete for the same place on labor market. The highly skilled members of the majority population should not oppose immigration of low-skilled workers, because they do not have to compete on labor market with them. Likewise, the low-skilled members of the majority population should oppose only immigration of low-skilled immigrants. They should not oppose immigration of high-skilled immigrants, because they do not have to compete on labor market with them. (Hainmueller and Hiscox 2007, p. 409)

The results of their study show that more educated and high-skilled people are less prone to oppose immigration of both (professionals, low-skill workers) skill levels of immigrants. High-skilled members of the majority population favor higher-skilled immigrants even more than do low-skilled members of majority population (Hainmueller and Hiscox 2007, p. 421). The second study by Hainmueller and Hiscox (2010) finds similar results. According to them, highly skilled as well as low skilled respondents strongly prefer highly skilled immigrants over low-skilled immigrants (Hainmueller and Hiscox 2010, p. 62). This results seem to support the claim that attitudes towards immigrants are not caused by labour market competition, but can be due to other factors like education. The researchers suggest that attitudes towards immigrants could be explained by the influence of the educational system on attitudes towards minorities and people different from the majority population.

In conclusion, the Human Capital Theory is in opposition to the Ethnic Competition Theory on the individual level. According to the theory, it is possible that the effect of education on attitudes

towards immigrants is not due to competition on labor market, but due to the education itself. Based on the study by Hainmueller and Hiscox we test hypotheses based on this theory. If the labor-market competition theory is valid, members of majority population should oppose immigration of immigrants of their skill-level and should not oppose immigration of immigrants of different skill-levels. In the next section, we briefly describe the Intergroup Contact Theory.

### **1.3. The Intergroup Contact Theory**

The Ethnic Competition Theory states that higher proportion of the out-groups in the country leads to higher competition between groups. The Intergroup Contact Theory contradicts this statement and propose that, under certain circumstances, the higher proportion of the out-groups in the country can lead to higher contact between groups, therefore to more positive attitudes towards immigrants.

The effect of contact between majority population of the countries and its out-groups have been studied for a long time. Some scholars were interested in contact between races under conditions of equality and state that this contact would lead to more negative attitudes towards them (Baker, 1934, cited in Pettigrew and Tropp 2006, p. 751). Other scholars argue that intergroup contact reduces prejudice (Pettigrew and Tropp 2006, p. 766; McLaren 2003, p. 912-914). Current research seems to support the later statement that intergroup contact reduces negative attitudes towards outgroups (for example Pettigrew and Tropp 2006, p. 766; Bridges and Mateut 2014, p. 409-413; DiGiusto and Jolly 2009, p. 3-4; Schneider 2008, p. 55; McLaren 2003, p. 925).

The Intergroup Contact Theory on contextual level presupposes that when the size of the out-group in the country is larger, attitudes towards immigrants can become more positive or more negative depending on contact between groups (Paas and Halapuu 2012, p. 164; Barceló 2016, p. 104; DiGiusto and Jolly 2009, p. 4). First, when majority population meets members of out-group in daily life in positive circumstances more often, it leads to more positive attitudes towards them. When the minority group grows, the opportunities to meet its members for the majority population also grows. On the other hand, when the conditions are competitive, more frequent contact leads to higher prejudice.

The contact can reduce prejudice just when the members of majority population have individual contact with members of out-groups. When the proportion of out-group in the country is high and majority population have high individual contact with members of out-group population, attitudes towards the out-group can become more positive. On the other hand, when the proportion of members of out-group in the country is high and majority population have limited individual contact with members of the out-groups, attitudes towards the them become more negative. More on the topic the Intergroup Contact Theory for example Pettigrew and Tropp (2006).

Many studies on attitudes towards immigrants include contact between in-group and out-groups members into the analysis. Higher contact between members of majority population and members of out-groups seems to lead to more positive attitudes towards immigrants. For example, in the study by Schneider (2008, p. 60) when people state to have immigrant friends or immigrant colleagues, they tend to feel less threatened by the immigrants. Also in the study by Qullian (1995, p. 599) when people state to have other races or immigrants in their neighborhood or other races or immigrants at their workplace, they express less prejudice towards immigrants and other races. In the study by Hjerm (2007, p. 1268), when the members of the majority population state to have immigrant friends or immigrant colleagues, they express less xenophobic attitudes. In the study by McLaren (2003, p. 924-926), when the members of the majority population have minority friends, it reduces hostility towards minorities. In the study by Semyonov and Glikman (2009, p. 696), having immigrant friends reduces negative attitudes towards immigrants.

According to the Ethnic Competition Theory, the high proportion of the immigrants in the country can lead to higher competition between majority population and out-groups. On the other hand the Intergroup Contact Theory states that it can also lead to more frequent contact between members of majority population and members of out-groups, therefore to more positive attitudes towards immigrants in the country. Based on this theory and previous research, we control for contact between the majority population and out-groups on the individual level in this thesis.

## **1.4. Cross-National Research on Anti-Immigrant Attitudes**

From 1995 when Quillian (1995) conducted the first cross-national study on attitudes towards immigrants ‘Prejudice as a Response to Perceived Group Threat: Population Composition and Anti-Immigrant and Racial Prejudice in Europe’, many cross-national studies were published on this topic (for example Barceló 2016; Berg 2010; Bridges and Mateut 2014; Davidov and Meuleman 2012; Escandell and Ceobanu 2009; Gorodzeisky and Semyonov 2016; Hainmueller and Hiscox 2007; Herreros and Criado 2009; Hjerm 2007; Masso 2009; McLaren 2003; Paas and Halapuu 2012; Pardos-Prado 2011; Rustenbach 2010; Scheepers et al. 2002; Schlueter et al. 2013; Schneider 2008; Semyonov et al. 2006; Semyonov et al. 2008).

Quillian (1995, p. 586) used the term “threat perception” as a measure for perception of competition in the first international study on attitudes towards immigrants. We use the term threat perception as a measure for perception of competition in this thesis. Terminology which was used in the previous studies on the topic attitudes towards immigrants is not settled yet. Especially the dependent variable attitudes towards immigrants has various meanings in different studies. The most important studies for this thesis are studies ‘Nationalistic Attitudes and Ethnic Exclusionism in a Comparative Perspective’ by Coenders (2001) and ‘Ethnic Exclusionism in European Countries’ by Scheepers, Gijsberts, and Coenders (2002) because they present the Ethnic Competition Theory.

### **1.4.1. Dependent Variable Attitudes towards Immigrants**

In Europe, many of the scholars use an index composed from six questions from European Social Survey to measure attitudes towards immigrants. This index is sometimes called FIOS index (Pardos-Prado 2011, p. 1004; Semyonov et al. 2008, p. 11). We follow this terminology in this thesis. It comprises from questions about respondent’s opinions on impact of the immigrants on jobs, health and welfare services, crime, economy, cultural life, and general impact of immigrants in the country. Many studies use this index or some questions from this index to measure attitudes towards immigrants. On the other hand, the terminology is not settled yet.

Some scholars use this index or questions from this index to measure the dependent variable attitudes towards immigrants. For example, Semyonov et al. (2008, p. 11) call the dependent

variable (FIOS index) a measure of attitudes toward foreign population. Gorodzeisky and Semyonov (2016, p. 335) call the dependent variable (index composed from three of these questions) a measure of attitudes toward immigrant population. Rustenbach (2010, p. 62) calls the dependent variable (index of three of these questions) a measure of anti-immigrant attitudes. In comparison, Pardos-Prado (2011, p. 1004) calls the dependent variable (FIOS index) a measure of attitudes towards immigration. Masso (2009, p. 257) calls the dependent variable (index of three of these questions) a measure of readiness to accept immigrants. Other studies use another terminology. For example, Schneider (2008, p. 57) calls the dependent variable (FIOS index) a measure of perceived ethnic threat and Semyonov and Glikman (2009, p. 697) call the dependent variable (FIOS index) a measure of perceived threat. Also Pichler (2010, p. 451) uses one of these questions to measure overall perceived group threat. Hjerm (2007, p. 1260) uses the same index like a measure of xenophobia.

We call the dependent variable comprised from the six questions either FIOS index or attitudes towards immigrants (for example Semyonov et al. 2008, p. 11; Gorodzeisky and Semyonov 2016, p. 335; Rustenbach 2010, p. 62). We decided to use an index of all six of the questions to measure attitudes towards immigrants (for example Semyonov et al. 2008, p. 11; Pardos-Prado 2011, p. 1004; Semyonov and Glikman 2009, p. 697; Pichler 2010, p. 451; Hjerm 2007, p. 1260). We describe the aims and objectives of the thesis in the following part.



## 2. Aims and Objectives of the Thesis

Based on previous research mentioned earlier, the main aim of this thesis is to determine what affects cross-national differences in attitudes towards immigrants in Europe while using theoretical framework of the Ethnic Competition Theory, the Human Capital Theory, and other related theories. We decided to explore an effect of several contextual and individual level variables on attitudes towards immigrants and immigration based on previous theory and research. We explore an association between attitudes towards immigrants and GDP per capita, PPP of a country, proportion of non-European Union born population in a country, and MIPEX of a country on contextual level. From individual variables, we explore an association between attitudes towards immigrants and immigration, and education, income, and individual unemployment.

Based on previous research it seems that certain contextual and individual variables affect attitudes towards immigrants. Based on the Realistic Conflict Theory, economic conditions of a country cause higher competition between majority population and out-groups in the country. Therefore, lower GDP per capita should lead to more negative attitudes towards immigrants in the country. Similarly, higher proportion of out-groups in a country should lead to higher competition between groups, therefore to more negative attitudes towards immigrants in the country. However, the effect of these variables on attitudes towards immigrants is not sufficiently explored yet. Finally, some scholars state that more permissive migrant integration policy of a country should lead to more negative attitudes towards immigrants in the country, because it causes higher competition between majority population and out-groups. The effect of this variable on attitudes towards immigrants has not been widely studied yet. We build on theoretical framework of the Ethnic Competition Theory and assume that more permissive Migrant Integration Policy Index (MIPEX) cause higher competition between groups in a country. Therefore, the higher the index of a country is, the more negative attitudes towards immigrants in the country should be. We focus on more detailed description of effects of contextual level variables earlier in the literature review chapter (especially in the section 1.1.2.).

On individual level, it seems that higher education and higher income are associated with more positive attitudes towards immigrants. Therefore, it is not the main aim of this thesis to determine the effect of these variables on attitudes towards immigrants and immigration. We try to expand

knowledge of the question whether it is the labor market competition or the education which leads to attitudes towards immigrants and immigration. Individual position on labor market and education are linked together, therefore it is not easy to determine to what extent each variable influences attitudes of a person towards immigrants and immigration. According to the Realistic Conflict Theory, negative attitudes of a person towards immigrants on the individual level are caused mainly by their vulnerability on labor market. On the other hand, according to the Human Capital Theory, education does not affect attitudes towards immigrants through a skill level of a person and related competition on labor market, but it affects attitudes towards immigrants directly.

Economic threat theories, which are part of the Ethnic Competition Theory, state that people with lower education/skill level should oppose immigration of unskilled workers and people with higher education/skill level should oppose immigration of professionals, because they threaten their jobs (Hainmueller and Hiscox 2007, p. 409). The article by Hainmueller and Hiscox (2007) challenges the Ethnic Competition Theory by testing this assumption. We focus on more detailed description of this topic earlier in the literature review chapter (especially in the part 1.2.). Based on previous research, we set the hypotheses about the effect of these contextual and individual variables on attitudes towards immigrants.

## **2.1. Hypotheses**

We use two competing theories about attitudes towards immigrants and immigration the Ethnic Competition Theory and the Human Capital Theory to determine the hypotheses. According the Ethnic Competition Theory, higher competition at individual level (economic vulnerability of a person) and contextual level may lead to more negative attitudes towards members of out-groups among majority population in a country (Coenders 2001, p. 41; Scheepers et al. 2002, p. 18; Schneider 2008, p. 53-54). The Human Capital Theory is in opposition to this theory and states that it is an education and not competition on labor market which causes negative attitudes towards out-groups. We focus on further theoretical explanation of these theories in the literature review chapter of the thesis.

### **2.1.1. Individual Level Hypotheses**

The Ethnic Competition Theory hypotheses:

H1: Economically vulnerable people will hold more negative attitudes towards immigrants, particularly (1a) the lower the household income of the individual is, the more negative his or her attitudes towards immigrants are, (1b) the less years of education the individual has, the more negative his or her attitudes towards immigrants are, (1c) unemployed people hold more negative attitudes towards immigrants than people who are not unemployed.

The Human Capital Theory hypotheses:

H2: (a) The lower the education of the individual is, the more negative his or her attitudes towards immigration of unskilled workers are. (b) The higher the education of the individual is, the more negative his or her attitudes towards immigration of professionals are.

### **2.1.2. Contextual Level Hypotheses**

The Ethnic Competition Theory hypotheses:

H3: The higher proportion of non-EU born immigrants the country has, the more negative attitudes towards immigrants in the country are.

H4: The worse the economic performance of the country is, the more negative attitudes towards immigrants in the country are.

H5: The higher the Migrant Integration Policy Index of the country is, the more negative attitudes towards immigrants in the country are.

## 3. Data and Measurements

### 3.1. Data

The individual level data for the thesis come from ESS7-European Social Survey Round 7 2014/2015. Participating countries were: Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Israel, Lithuania, Netherlands, Norway, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland, United Kingdom. ESS involves strict random probability sampling and its minimum target response rate is 70 %. The hour-long interview was conducted with persons aged 15 and over resident within private households, regardless of their nationality, citizenship, language or legal status. The total number of respondents is 40185. The smallest sample size is in Slovenia, 1224, the biggest sample is in Germany 3045. The fieldwork of ESS Round 7 took place from 14. 10. 2014 to 5. 5. 2015. ESS7 covers many topics and it includes 33 questions in the rotating module Immigration. ESS7 module Immigration is a partial repeat of a module from ESS Round 1. For more information about ESS7 methodology see Documentation Report of ESS7 (ESS Round 7 2016a). (ESS Round 7 2016a, p. 6-7)

In cross-national surveys, there can be additional methodological challenges than in one country surveys (Davidov et al. 2014, p. 56). A lot of issues like data collection, sampling, language (or translation), and comparability of concepts and indicators has to be considered (Hantrais and Mangen 1996, p. 5; Davidov et al. 2014, p. 56; Harkness et al. 2010, p. 8). For more detailed information about this topic see for example Hantrais and Mangen (1996), Davidov et al. (2014), Harkness et al. (2010). Despite these challenges, cross-national research is frequently used today. Its methodology is more advanced than it was in the past. One of the ESS objectives is to “advance and consolidate improved methods of cross-national survey measurement in Europe and beyond (ESS Round 7 2016a, p. 6)”. Moreover, ESS7 includes rigorous translation protocols (ESS Round 7 2016a, p. 6).

Cases with extreme values are excluded from the analyses. Respondents from Israel are also excluded, because Israel has a specific history of immigration and some contextual variables for this country are not available. Respondents who were not born in the participating country or whose parents were not born in the country are excluded from the analyses (ESS variables *brncntr*, *facntr*, *mocntr*; see Schneider 2008, p. 57). These people are directly concerned about the topic of

immigration because they or their parents are immigrants. Therefore, their attitudes towards immigrants should be studied separately. The least cases are excluded in Poland - 33 excluded cases from total sample 1615. The most cases are excluded in Estonia 654 from total sample 2051. In opposition to my approach, Scheepers et al. (2002, p. 20) and Rustenbach (2010, p. 74) excludes just respondents who were not born in the country themselves. Bello (2016, p. 207) excludes respondents who state that they belong to an indigenous ethnic minority. McLaren (2003, p. 918) also excludes respondents who respond that they feel that they belong to a minority group in terms of race, religion, and culture. Countries have different rules for obtaining citizenship, therefore variable if the person holds a citizenship of the country is not internationally comparable (see Quillian 1995, p. 592).

When country weights are not included to the analysis, each country has a weight of its sample size. These weights depend on other factors than on theoretical assumptions, therefore they are not suitable for the thesis. ESS7 includes weights that reflect population size of the country. When these weights are used, people from countries with larger population size have a higher weight in the model. Therefore, it is not possible to use these weights in this thesis. For this thesis, other weights (CWEIGHT) are constructed where the countries are equally weighted (1914 per country; see Barceló 2016, p. 92; Coenders et. al. 2005, p. 79; Kunovich 2002, p. 42; Riek et. al. 2006, p. 341; Schneider 2008, p. 57). Furthermore, the data are weighted with ESS7 design weights - DWEIGHT (see Weighting European Social Survey Data 2014; ESS Round 7 2016a, p. 8; Schneider 2008, p. 57). DWEIGHT and CWEIGHT are combined in the analyses.

## **3.2. Measurements**

To test the hypotheses based on the Ethnic Competition Theory and the Human Capital Theory we follow other studies on attitudes towards immigrants and use multilevel models. They allow to include individual and contextual variables into the analyses (see Barceló 2016, p. 91; Bello 2016, p. 206; Berg 2010, p. 288-291; Davidov and Meuleman 2012, p. 759; Escandell and Ceobanu 2009, p. 53; Herreros and Criado 2009, p. 342; Hjerm 2007, p. 1258; Kunovich 2004, p. 31; Masso 2009, p. 259; McLaren 2003, p. 933; Quillian 1995, p. 596; Pardos-Prado 2011, p. 1004-1005; Rustenbach 2010, p. 61-62; Scheepers et al. 2002, p. 23; Schneider 2008, p. 59; Semyonov et al. 2006, p. 427; Semyonov et al. 2008, p. 8).

When there is a relationship between micro and macro level, multilevel analysis is needed (Soukup 2006, p. 989; Kreft and Leeuw 1998, p. 2). Multilevel analysis can account for dependencies, which are present in the data because of nesting. These dependencies violate the assumptions of statistical models independence of error and homogeneity of regression slopes. They result in inaccurate statistical estimates. Multilevel analysis allows to find out which part of the variation in the dependent variable is explained by individual-level variables and which by contextual level variables. We use two levels in the analysis - individuals are level 1, level 2 are countries. SPSS is used for the data analyses.

### **3.2.1. Dependent Variables**

#### **3.2.1.1. The Ethnic Competition Theory Hypotheses**

We use an index (mean score) perceptions of threat like a dependent variable to test the hypotheses. This index is sometimes called FIOS index (Pardos-Prado 2011, p. 1004; Semyonov et al. 2008, p. 11). We follow this terminology in this thesis. The questions ask the respondents about their opinions on impact of the immigrants on jobs, health and welfare services, crime, economy, cultural life, and general impact of immigrants. Cases with less than three answers are excluded from the analysis (see Schneider 2008, p. 57). The measure contains six questions from ESS7:

D7 Would you say that people who come to live here generally take jobs away from workers in [country], or generally help to create new jobs? (imtcjob)

D8 Most people who come to live here work and pay taxes. They also use health and welfare services. On balance, do you think people who come here take out more than they put in or put in more than they take out? (imbleco)

D9 Are [country]'s crime problems made worse or better by people coming to live here from other countries? (imwbcrm)

B32 Would you say it is generally bad or good for [country]'s economy that people come to live here from other countries? (imbgeco)

B33 Would you say that [country]'s cultural life is generally undermined or enriched by people coming to live here from other countries? (imueclt)

B34 Is [country] made a worse or a better place to live by people coming to live here from other countries? (imwbcnt; ESS Round 7 2016b, p. 12-13, 21-22)

The respondents can reply on the scale 0 to 10 when 0 is the most negative response and 10 the most positive response. The respondents can also reply "Do not know". The index was used like a dependent variable in many studies. For example, Pardos-Prado (2011, p. 1004) use this index like

a measure of attitudes towards immigration. Semyonov et al. (2008, p. 11) use the index like a measure of attitudes toward foreign population. Schneider (2008, p. 57) uses this index like a measure of perceived ethnic threat, Semyonov and Glikman (2009, p. 697) like a measure of perception of threat. Hjerm (2007, p. 1260) uses the index like a measure of xenophobia (defined like a negative attitude towards, or fear of, somehow different individuals).

Gorodzeisky and Semyonov (2016, p. 335) and Rustenbach (2010, p. 62) use index of three of these questions (economy, cultural life, and society in general) like a dependent variable for measuring attitudes toward immigrants. Masso (2009, p. 257) uses index of three of these questions (economy, cultural life, and society in general) like a measure for readiness to accept immigrants. Bello (2016, p. 208) use just one of these questions (make country a worse or a better place to live) to measure attitudes towards immigrants. Pichler (2010, p. 451) uses the same question to measure overall perceived group threat. Bridges and Mateut (2014, p. 403) use three of the questions (economy, country's culture, bad for the country) like independent variables for predicting opposition towards the arrival of immigrants.

### **3.2.1.2. The Human Capital Theory Hypothesis**

O'Rourke and Sinnott (2006, p. 840) state that when more skilled workers come to the country, it will raise unskilled wages and lower skilled wages in that country. Similarly Mayda (2006, p. 510) states that standard trade and labor-economics theories of labor market predict that attitudes towards immigration depend on the composition of labor-force in the country. Skilled individuals in the country should favor immigration if natives are more skilled than immigrants and the opposite is true for countries where natives are less skilled than immigrants (Mayda 2006, p. 501). According to Hainmueller and Hiscox (2007, p. 401) arguments about labor-market competition anticipate "... that individuals will oppose immigration of workers with similar skills to their own but support immigration of workers with different skill levels." We follow their approach in the thesis. Hainmueller and Hiscox (2007, p. 401) use following ESS1 questions:

D6# To what extent do you think [country] should allow people from the richer countries in Europe to come and live here?

D7# How about people from the poorer countries in Europe?

D8# To what extent do you think [country] should allow people from the richer countries outside Europe to come and live here?

D9# How about people from the poorer countries outside Europe? (ESS Round 1 2014, p. 25-26)

The possible answers were: Allow many to come and live here, Allow some, Allow a few, Allow none, and (Don't know). For each of the questions they created a dichotomous variable that equals 1 (pro-immigration) if the answer was "allow many" or "allow some" and 0 (anti-immigration) if the answer was "allow a few" or "allow none". (Hainmueller and Hiscox 2007, p. 407)

We think that these questions are not so appropriate for testing the assumptions. The main problems of the questions are that people from poorer countries can also be highly-skilled and for every country there is different number of poorer and richer countries. We will not focus on these questions more at this point because in ESS7 the questions are different. The questions in the ESS7 are:

D30 To what extent you think [country] should allow professionals from [poor European country providing largest number of migrants] to come to live in [country]? (alpfpe)

D31 To what extent you think [country] should allow professionals from [poor country outside Europe providing largest number of migrants] to come to live in [country]? (alpfne)

D32 To what extent you think [country] should allow unskilled labourers from [poor European country providing largest number of migrants] to come to live in [country]? (allbpe)

D33 To what extent you think [country] should allow unskilled labourers from [poor country outside Europe providing largest number of migrants] to come to live in [country]? (allbpne; ESS Round 7 2016b, p. 28-29)

The possible answers were: Allow many to come and live here, Allow some, Allow a few, Allow none, and (Don't know). We follow Hainmueller and Hiscox (2007, p. 407) and recode the four questions to dichotomous variable. 1 - pro-immigration attitudes when the answer was "allow many" or "allow some" and 0 - anti-immigration attitudes when the answer was "allow a few" or "allow none". Questions are randomised in the questionnaire, just one quarter of the respondents is asked every question. Respondents are divided to four random groups in CAPI questionnaire, in PAPI questionnaire the question depends on the month of birthday (ESS Round 7 2016b, p. 27).

We propose that the questions in ESS7 are more appropriate for testing the Human Capital Theory. These questions specifically ask about attitudes towards immigration of professionals and unskilled laborers. As Hainmueller and Hiscox state about ESS1:



The crucial advantage gained from examining these ESS data, compared to data from alternative surveys used in previous research, is that separate questions have been posed about specific categories of immigrants that are likely to have very different skill characteristics. These distinctions allow for much more direct test of the arguments about labor-market competition. ... Here we can assume that respondents will have substantially different expectations about the average skill levels of immigrants from 'richer' countries than of those from 'poorer' countries. ... Respondents are more likely to associate immigrants from the richer nations with higher-skilled individuals (...), while associating immigrants from poorer nations with lower skilled individuals (...). (Hainmueller and Hiscox 2007, p. 408)

In the ESS1 the questions ask about attitudes towards people from richer and poorer countries. The questions in ESS7 ask specifically about attitudes towards professionals and unskilled labourers, therefore they are even better measure of attitudes towards immigration of different skill-level immigrants.

On the other hand, these questions can have different problems. The source country from which the country has the largest number of migrants can be somehow specific. For example, for some reason people from one country can have positive attitudes towards immigrants from Ukraine (in this example largest number of immigrants) but if it would be Romania (in this example second largest number of immigrants), people could have negative attitudes towards the immigration. Despite this problem, we use these questions for the same purpose like they are used in the study Educated Preferences by Hainmueller and Hiscox (2007).

### **3.2.2. Independent Variables**

#### **3.2.2.1. Contextual Variables**

GDP per capita, PPP

To test the hypothesis H4: "The worse the economic performance of the country is, the more negative attitudes towards immigrants in the country are." we use GDP per capita, PPP. This measure is frequently used as a measure of the economic performance of the country see Hjerm 2007, p. 1265; Quillian 1995, p. 594; Schneider 2008, p. 59; Semyonov et al. 2006, p. 434-5). We use the data about GDP per capita, PPP from the World Bank 2014 (2016). It is more appropriate

to use GDP per capita, PPP (instead of GDP) for international comparison. GDP of the country depends on the population size of the country. GDP per capita, PPP takes into account the population size of the country.

GDP per capita, PPP differs from GDP per capita, because it takes into account how much a person can buy in his or her country:

GDP per capita is gross domestic product divided by midyear population. GDP per capita, PPP is GDP per capita based on purchasing power parity (PPP). PPP GDP is gross domestic product converted to international dollars using purchasing power parity rates. (The World Bank 2016b)

Some studies also include an annual growth rate of GDP per capita in the country and/or an unemployment rate in the country like a measures of country's economic performance (Barceló 2016, p. 98; Bello 2016, p. 215-216; Coenders et al. 2005, p. 39). These variables usually do not have statistically significant effect on attitudes towards immigrants, therefore we decided not to include them into the analyses (see Hjerm 2007, p. 1265; Quillian 1995, p. 594; Schneider 2008, p. 59; Semyonov et al. 2006, p. 434; Semyonov et al. 2008, p. 11).

### Proportion of the non-EU born population

To test the hypothesis H3: "The higher proportion of non-EU born immigrants the country has, the more negative attitudes towards immigrants in the country are." The hypothesis is based on perception of threat of the majority population from the outgroup population. Therefore, we use proportion of non-European Union born population in the country instead of proportion of all immigrants (see Quillian 1995, p. 589; Semyonov and Glikman 2009, p. 697; Scheepers et al. 2002, p. 23). The data about proportion of non-EU immigrants are from Eurostat 2014 (Eurostat 2015). The measure reflects all first generation immigrants born in non-EU states and does not depend on country's citizenship law. This measure includes also immigrants from USA and Australia, nevertheless it is used in the thesis.

On the other hand, Rustenbach (2010, p. 58-59), Schlueter et al. (2013, p. 674), McLaren (2003, p. 920), and Bello (2016, p. 218) use proportion of all immigrants in the country; Schneider (2008, p. 58) uses share of low-educated immigrants relative to the whole population and share of immigrants from non-western countries; Gorodzeisky and Semyonov (2016, p. 344) use proportion

of racial minority population. We provide more information on this topic in the literature review chapter in the thesis.

## MIPEX

To test the hypothesis H5: “The higher the Migrant Integration Policy Index of the country is, the more negative attitudes towards immigrants in the country are.” Migrant integration policies are not often investigated in association with attitudes towards immigrants (see Bello 2016, p. 207; Paas and Halapuu 2012, p. 171; Schlueter et al. 2013, p. 672; Weldon 2006, p. 342). For example according to Schlueter et al. (2013, p. 671), more permissive immigrant integration policies will lead to greater intergroup competition. The opposing view states that more permissive immigrant integration policies will decrease the perceived threat perceptions from immigrants (Bello 2016, p. 204; Paas and Halapuu 2012, p. 171; Schlueter et al. 2013, p. 671). We provide more information on this topic in the literature review chapter in the thesis. To test the influence of immigrant integration policies we use Migrant Integration Policy Index (MIPEX) 2014 (MIPEX 2015; Schlueter et al. 2013, p. 671).

MIPEX measures integration policies of immigrants in the participating countries, it includes 167 policy indicators. MIPEX measures policies in the areas labor market mobility, education, political participation, access to nationality, family reunion, health, permanent residence, anti-discrimination. The project is led by the Barcelona Centre for International Affairs (CIDOB), and the Migration Policy Group (MPG). It is interested in integration outcomes, policies, and beneficiaries in EU, Australia, Canada, Iceland, Japan, South Korea, New Zealand, Norway, Switzerland, Turkey and the USA. It has been designed through consultations with scholars and institutions as a measure of laws and policies in the area of immigration policies. (www.mipex.eu. 2017)

A policy indicator is a question about a specific policy of one of the 8 policy areas. There are 3 options for each answer. The maximum of 3 points is awarded when policies meet the highest standards for equal treatment. Within each of the 8 policy areas, the indicator scores are averaged together to give one of 4 dimension scores which examine the same aspect of policy. The 4 dimension scores are then averaged together to give the policy area score for each of the 8 policy areas per country which, averaged together one more time, lead to the overall scores for each

country. In order to make rankings and comparisons, the initial 1, 2, 3 scale is converted into a 0, 50, 100 scale for dimensions and policy areas, where 100% is the top score. (www.mipex.eu. 2017)

### **3.2.2.2. Individual Variables**

In the thesis, we use individual data from European Social Survey Round 7 2014/2015. Socio-demographic variables and variables concerning attitudes towards immigrants are used. Questions from ESS7 are used in the thesis in order to test the hypotheses derived from the Ethnic Competition Theory and the Human Capital Theory. We follow studies that have been conducted on the topic attitudes towards immigrants (i. a. Bridges and Mateut 2014, p. 401; Schneider 2008, p. 57-59; Bello 2016, p. 209-212; Rustenbach 2010, p. 61-62; Pardos-Prado 2011, p. 1004-1005).

To test the hypotheses derived from the Ethnic Competition Theory, we need to determine the skill level of the respondents. Some studies measure the skill level of the majority population by education or income and some studies use both of these variables. We use a model only with education and then model with both of these variables. We use this approach, because about a quarter of the respondents did not answer the question about their household income in ESS7, therefore the number of respondents included in the analysis is greatly reduced when the variable income is included to the analysis.

#### **Education**

We use variable education to test the hypotheses H1b: The less years of education the individual has, the more negative his or her attitudes towards immigrants are., H2a: The less years of education the individual has, the more negative his or her attitudes towards immigration of unskilled workers are, and H2b: The more years of education the individual has, the more negative his or her attitudes towards immigration of professionals are

Education is used in some studies as a measure of skills of the respondents. Independent variable education is used in the vast majority of studies on the topic attitudes towards immigrants in connection with the Ethnic Competition Theory or the Human Capital Theory. More educated people tend to have more positive attitudes towards immigrants, than the less educated people have (see Barceló 2016, p. 97; Bello 2016, p. 215; Citrin et al. 1997, p. 866; Coenders 2001, p. 93; Hjerm 2007, p. 1268; McLaren 2003, p. 924; Scheepers et al. 2002, p. 25-27; Schneider 2008, p. 60). We

use question about number of years instead of using levels of education to test the hypotheses derived from the Ethnic Competition Theory and the Human Capital Theory:

F16 About how many years of education have you completed, whether full-time or part-time? Please report these in full-time equivalents and include compulsory years of schooling. (eduysr; ESS Round 7 2016b, p. 46)

## Income

To test the hypothesis H1a: “The lower the household income of the individual is, the more negative his or her attitudes towards immigrants are.” Independent variable income is widely used to test hypotheses derived from the Ethnic Competition Theory and the Human Capital Theory. People with lower income tend to have more negative attitudes towards immigrants (see Barceló 2016, p. 97; Bridges and Mateut 2014, p. 410; Gorodzeisky and Semyonov 2016, p. 344; Schneider 2008, p. 61). ESS7 includes a question about income of a household:

F41 Using this card, please tell me which letter describes your household's total income, after tax and compulsory deductions, from all sources? If you don't know the exact figure, please give an estimate. Use the part of the card that you know best: weekly, monthly or annual income. (hinctnta)

This question is based on ten income range categories, each corresponding broadly to DECILES OF THE ACTUAL HOUSEHOLD INCOME RANGE in the country. (ESS Round 7 2016b, p. 53)

## Unemployment

To test the hypothesis H1c: “Unemployed individuals hold more negative attitudes towards immigrants than individuals who are not unemployed.” A question about unemployment is widely used in studies investigating attitudes towards immigrants (see Escandell and Ceobanu 2009, p. 52; McLaren 2003, p. 924; Pardos-Prado 2011, p. 1007; Rustenbach 2010, p. 53; Scheepers et al. 2002, p. 26; Schneider 2008, p. 61). This question is also included to test the hypotheses derived from the Human Capital theory. We use ESS7 question:

F17a Using this card, which of these descriptions applies to what you have been doing for the last 7 days? Select all that apply. (uempla; ESS Round 7 2016b, p. 46)

Possible answers were: in paid work (or away temporarily) - (employee, self-employed, working for your family business); in education, (not paid for by employer) even if on vacation; unemployed and actively looking for a job; unemployed, wanting a job but not actively looking for a job; permanently sick or disabled; retired; in community or military service; doing housework, looking after children or other persons; (other); (Don't know). The answers were recoded to 0, 1. We used the variable unemployed and actively looking for a job. (ESS Round 7 2016b, p. 46)

### 3.2.2.3. Control variables

The thesis also includes control variables age, gender, if the respondent belongs to minority ethnic group in the country, placement on the left-right scale, and domicil (see Barceló 2016, p. 97; Bello 2016, p. 215; Bridges and Mateut 2014, p. 411; Davidov and Meuleman 2012, p. 768; Escandell and Ceobanu 2009, p. 52; Gorodzeisky 2011, p. 106; Gorodzeisky and Semyonov 2016, p. 344; Haubert and Fussel 2006, p. 499; McLaren 2003, p. 924; Pardos-Prado 2011, p. 1007; Pichler 2010, p. 466; Rustenbach 2010, p. 53; Scheepers et al. 2002, p. 26; Semyonov et al. 2008, p. 17; Semyonov and Glikman 2009, p. 702). We use following questions:

F3 Year born (calculated, agea)

F2 CODE SEX (gndr)

C24 Do you belong to a minority ethnic group in [country]? (blgetmg)

Yes

No

(Don't know) 8

B19 **CARD 12** In politics people sometimes talk of “left” and “right”. Using this card, where would you place yourself on this scale, where 0 means the left and 10 means the right? (lrscale)

F14 **CARD 60** Which phrase on this card best describes the area where you live? (1 A big city, 2 The suburbs or outskirts of a big city, 3 A town or a small city, 4 A country village, 5 A farm or home in the countryside, 8 (Don't know)); (domicil)

(ESS Round 7 2016b, p. 9, 19, 40, 41, 42)

The variable domicil is recoded to domicill as 1 – city (A big city, Suburbs or outskirts of big city, Town or small city); 2 – countryside (Country village, Farm or home in countryside). Contact with immigrants is also included to the analyses (see Escandell and Ceobanu 2009, p. 55; McLaren 2003, p. 924; Schneider 2008, p. 54). The Intergroup Contact Theory states that when members of the majority population meet members of outgroups regularly, they become more familiar with

them. Therefore, the contact between majority population and outgroups members can lead to more positive attitudes towards immigrants (Pettigrew and Tropp 2006, p. 766; Escandell and Ceobanu 2009, p. 45; McLaren 2003, p. 912). More about this topic in the literature review chapter. We use the question:

**D20 CARD 38** How often do you have any contact with people who are of a different race or ethnic group from most [country] people when you are out and about? This could be on public transport, in the street, in shops or in the neighborhood. (dfegcon; ESS Round 7 2016b, p. 25)

We do not use question about friendship with immigrants, because there is a significant problem with causality between having friends among immigrants and having positive attitudes towards them. People can choose friends, therefore when they have negative attitudes towards immigrants it is probable that they will not have friends among them. A question about contact at workplace would probably be a better measure of an effect of contact between the respondent and respondent's attitudes towards immigrants. However, this question is not included in the ESS7.

# 4. Analysis

## 4.1. Results

Some studies on attitudes towards immigrants use multilevel models, because it allows to include individual and contextual variables into the analysis. Multilevel analysis allows us to find out which part of the variation in the dependent variable can be explained by individual-level variables and which by contextual level variables. We use hierarchical linear models to test the hypotheses derived from the Ethnic Competition Theory and multilevel logistic regression to test the hypotheses derived from the Human Capital Theory.

### 4.1.1. Results the Ethnic Competition Theory

#### 4.1.1.1. Data Overview

We use FIOS index as a dependent variable attitudes towards immigrants. The index is composed from six questions which ask the respondents about their opinions on impact of the immigrants on jobs, health and welfare services, crime, economy, cultural life, and general impact of immigrants (more about the dependent variable in the section 3.2.1.). The respondents can reply to all of these questions on the scale 0 to 10 when 0 is the most negative response and 10 the most positive response. We present the mean scores of the countries in the Table 1. As shown in error bar graph - Figure 1. respondents in Sweden (mean 5,9), Germany (5,3), Finland (5,2), and Norway (5,1) hold the most positive attitudes towards immigrants. They are followed by Switzerland, Estonia, Denmark, and Poland (5,0); Lithuania (4,8); Netherlands (4,7); Ireland and France (4,6); Spain (4,5); Belgium, Slovenia, United Kingdom, and Portugal (4,4). People hold the most negative attitudes towards immigrants in Czech Republic (3,7), Hungary (3,8), and Austria (4,1).

In the Table 1 Table 1, we show an overview of the country level data (GDP per capita, PPP; percentage of non-EU immigrants in the country; MIPEX). The countries with the highest GDP per capita, PPP (measured in international dollars) for the year 2014 are Norway (65416), Switzerland (59678), Ireland (50451), Netherlands (48271), and Austria (47869). The countries with the lowest GDP per capita, PPP for the year 2014 are Hungary (25232), Poland (25271), Lithuania (27686), Estonia (27852), and Portugal (28760; World Bank 2016a). The highest proportion of non-EU born population in 2014 is in Estonia (14 %), Sweden and Switzerland (11



); Austria, Netherlands, France and Belgium (9 %; Eurostat 2015). The lowest percentage of non-EU born population in 2014 resides in Poland (1 %), Hungary and Czech Republic (2 %), Finland and Lithuania (4 %; Eurostat 2015). The highest MIPEX for 2014 is in Sweden and Portugal (80), Finland (71), Belgium (70), and Norway (69) and the lowest MIPEX for 2014 is in Lithuania (38), Poland (43), Czech Republic (45), Hungary and Switzerland (46; www.mipex.eu. 2017).

It has been argued that richer countries also have higher proportion of immigrants, because they attract them more than the poorer countries. Proportion of non-EU immigrants in the country and GDP per capita, PPP in the country seems to be correlated in these data. Pearson correlation coefficient between these variables is 0,434. The MIPEX also seems to be correlated with GDP per capita, PPP. The richer countries seems to have more permissive immigrant integration policies. The Pearson correlation coefficient between these variables is 0,312. Pearson correlation coefficient between GDP per capita, PPP and FIOS is 0,372, Pearson correlation coefficient between proportion of non-EU immigrants and FIOS is 0,364, and Pearson correlation coefficient between MIPEX and FIOS is 0,423. Moreover, we performed linear regression in each country with independent variables gender, age, education, contact with different race, and unemployment. In all the countries, education has statistically significant positive effect on FIOS index.

Country	GDP... (Int\$)	non-EU (%)	MIPEX	FIOS
Sweden	45513	11,1	80	5,9
Germany	46526	7,6	63	5,3
Finland	40713	3,7	71	5,2
Norway	65416	7,9	69	5,1
Switzerland	59678	10,9	46	5,0
Estonia	27852	13,7	49	5,0
Denmark	45996	6,9	59	5,0
Poland	25271	1,0	43	5,0
Lithuania	27686	4,0	38	4,8
Netherlands	48271	8,7	61	4,7
Ireland	50451	6,6	51	4,6
France	39301	8,6	54	4,6
Spain	33625	8,4	61	4,5
Portugal	28760	6,1	80	4,4
Slovenia	30427	8,2	48	4,4
Belgium	43452	8,5	70	4,4

United Kingdom	40333	8,2	56	4,4
Austria	47869	9,3	48	4,1
Hungary	25232	1,7	46	3,8
Czech Republic	31573	2,4	45	3,7

Table 1

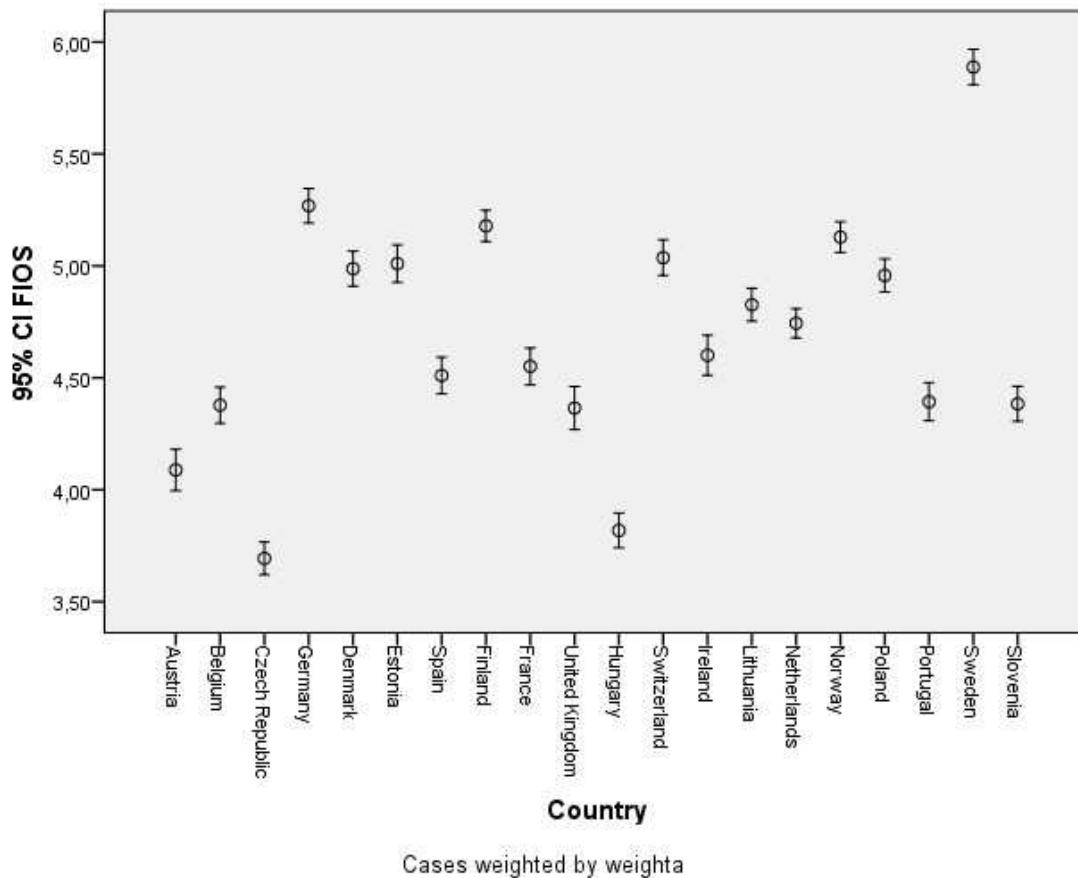


Figure 1

#### 4.1.1.2. Models - Multilevel Analysis

Based on the nature of the data and theoretical assumptions we include contextual level variables into the analysis (more in the literature review chapter 1.1.). We perform hierarchical linear regression to test the hypotheses derived from the Ethnic Competition Theory in this thesis (MIXED command in SPSS). We present information about the used models further in this part of the thesis. First, we need to verify whether the variance between countries in the used data is high enough to justify the use of complex hierarchical linear modeling. We present empty model here for this purpose:

Syntax (Model 1):

MIXED FIOS

/PRINT=SOLUTION TESTCOV

/FIXED = intercept

/RANDOM= intercept | subject (cntry1).

The equation for this model is:

$$Y_{ij} = \gamma_{00} + u_{0j} + e_{ij}$$

Equation 1 (Soukup 2006, p. 995)

While  $Y_{ij}$  is dependent variable;  $u$  and  $e$  are random errors on second and first level;  $\gamma_{00}$  is an average score in FIOS index.

Estimates of Covariance Parameters<sup>a</sup>

Parameter	Estimate	Std. Error	Wald Z	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Residual	2,673566	,021137	126,487	,000	2,632457	2,715316
Intercept [subject = cntry1] Variance	,277894	,090714	3,063	,002	,146561	,526916

a. Dependent Variable: FIOS.

Figure 2

The intercept in the empty model is equal to the average score in FIOS index, which is 4,7 (not shown). The intra-class correlation coefficient (ICC) for the model is 0,094 which means that 9,4 percent of the total variation in FIOS index can be accounted for by which country respondent belongs to (Figure 2). Column sig. in the Figure 2 (lower than 0,05) shows that the variance on contextual level is high enough to justify the use of multilevel models for the data. The model fit AIC criterion of this model is 122458 and BIC is 122474. Next, we add contextual level variables GDP per capita, PPP (gdpppp); the percentage non-EU immigrants (pimigrnoneu); and MIPEX of the country (MIPEX) in the Model 2. We present the syntax for Model 2 in the Attachment 1.

The model fit AIC criterion of the Model 2 is 122485 and BIC is 122502, which means that the model with contextual variables is not better than the empty model. It seems that neither of the chosen contextual variables has a significant effect on attitudes towards immigrants in this model. The estimate of GDP per capita, PPP (25232-65416) is 0,000 (p-value = 0.395), the estimate for percentage of non-EU immigrants (1,0-13,7) is 0,030 (p-value = 0.451), estimate for MIPEX (38-

80) is 0,013 (p-value = 0.217). However, we need to include these variables into the analysis to test the hypotheses derived from the Ethnic Competition Theory.

We add the individual level variables into the next models. The equation for these models is:

$$Y_{ij} = \gamma_{00} + \gamma_{10}X_{ij} + \gamma_{01}G_j + \gamma_{11}G_jX_{ij} + U_{1j}X_{ij} + U_{0j} + r_{ij}$$

$G_j$  = value on the level-2 predictor;

$\gamma_{00}$  = overall mean intercept adjusted for  $G$ ;

$\gamma_{10}$  = overall mean intercept adjusted for  $G$ ;

$\gamma_{01}$  = regression coefficient associated with  $G$  relative to level-1 intercept;

$\gamma_{11}$  = regression coefficient associated with  $G$  relative to level-1 slope;

$U_{0j}$  = random effects of the  $j$ th level-2 unit adjusted for  $G$  on the intercept;

$U_{1j}$  = random effects of the  $j$ th level-2 unit adjusted for  $G$  on the slope.

$X_{ij}$  = value on the level-1 predictor,

$r_{ij}$  = random error associated with the  $i$ th level-1 unit nested within the  $j$ th level-2 unit.

*Equation 2 (Woltman et al. 2012, p. 57)*

An individual variable household income is not included into some models, because there are 6623 missing cases within this variable from 33350 total cases. Sometimes education is used to measure skills of the individual instead of income, thus we use this measure in some models. Here we list the variables which are used in the next models: gender (gndr); age (agea); years of education (eduysr); contact with different race or ethnic group (dfegcon); individual unemployment (uempla); placement on left-right political scale (lrscale); belonging to minority ethnic group in a country (blgetmg); place of residence (domicil1); household income (hinctnta; more about these variables in the methodology chapter of this thesis 3.2.2.). It is possible that the effect of age (agea), education (eduysr), left-right scale (lrscale), and contact with different race or ethnic group (dfegcon) vary across countries, therefore these variables are treated as random effects in the models. On the other hand variables gender (gndr), unemployment (uempla), place of residence (domicil1), and belonging to minority ethnic group in country (blgetmg) are dichotomous, therefore are treated as fixed effects in the models.

Syntax (Model 3):

```
MIXED FIOS WITH gdpppp pimigrnoneu MIPEX gndr agea eduyrs dfegcon  
/FIXED = INTERCEPT gdpppp pimigrnoneu MIPEX gndr agea eduyrs dfegcon | SSTYPE(3)  
/PRINT=SOLUTION TESTCOV  
/RANDOM=INTERCEPT agea eduyrs dfegcon | subject (centry1) covtype (un).
```

The model fit AIC criterion of the Model 3 is 117553 and BIC is 117644, which means that this model is better than the previous models. We add other control individual independent variables to the Model 4 - unemployment, placement on the left-right political scale, belonging to ethnic minority, and place of residence. We present the syntax for the Model 4 in the Attachment 1 and selected results of the Model 4 in the Attachment 2. The model fit AIC criterion of the Model 4 is 102701 and BIC is 102833, which means that this model is better than the previous models.

Income (as a random effect) is included to the Model 5 (syntax presented in the Attachment 1, selected results in Attachment 2). The model fit AIC criterion of the Model 5 is 84066 and BIC is 84243. This model is better than the model without income. The fixed estimates for the variables in the Model 5 are similar to the fixed estimates in the Model 4 (except for age and unemployment), therefore we use this model to interpret the results. Finally, interaction between GDP per capita, PPP and percentage of non-EU immigrants is included into the Model 6 (syntax presented in the Attachment 1). The model fit AIC criterion of the Model 6 is 84086 and BIC is 84263 and the new variable does not have a statistically significant effect on the FIOS index. The model with interaction is not better than the Model 5. Therefore, we use Model 5 to interpret the results.

#### **4.1.1.3. Hypotheses Derived from the Ethnic Competition Theory**

We will test the hypotheses at this point. First, we test the individual level hypotheses. H1: Economically vulnerable people will hold more negative attitudes towards immigrants, particularly (1a) the lower the household income of the individual is, the more negative his or her attitudes towards immigrants are, (1b) the less years of education the individual has, the more negative his or her attitudes towards immigrants are, (1c) unemployed people hold more negative attitudes towards immigrants than people who are not unemployed. In the Model 5 all of the variables (income, education, and unemployment) have the anticipated effect on the FIOS index. Therefore, we find support for each of the hypothesis 1a, 1b, and 1c.

The results for Model 5 are presented in the Attachment 2. The lower income of the household is (hinctnta, 1-10 decile in the country), the more negative attitudes towards immigrants the respondent holds (p-value < 0.001) in the Model 5. The fixed estimate of household income means that people with one decile higher income score about 0,05 higher (more positive attitudes) in FIOS index. The less years of education (eduysr; 0-27 years) the respondent have the more negative his or her attitudes towards immigrants are (p-value < 0.001) in this model. The fixed estimate for education means that people with every one more year of education score about 0,10 higher (more positive attitudes) in FIOS index. Unemployed people (uempla; 0; 1-unemployed) tend to have more negative attitudes towards immigrants (p-value < 0.001) in this model. The fixed estimate for unemployment means that unemployed people score 0,27 lower (more negative attitudes) in FIOS index (in Model 4 it is -0,38).

The standardized coefficient shows how much the dependent variable changes when the independent variable changes by one standard deviation. Therefore, it is possible to compare the effect of all the variables in the model on attitudes towards immigrants. The standardized coefficients show that education has the strongest effect on attitudes towards immigrants from the included variables (fixed estimate 0,38). When the variable education changes by one standard deviation, FIOS index increases by the fixed estimate 0,38 (more positive attitudes towards immigrants). Standardized coefficients of the other variables are placement on the left-right political scale (estimate -0,22, p-value < 0.001), household income (estimate 0,15; p-value < 0.001), contact with different race or ethnic group (estimate 0,13; p-value < 0.001), age (estimate 0,06; p-value = 0.04), unemployment and domicil (estimate -0,05; p-value < 0.001), gender (estimate -0,03; p-value = 0.001) and belonging to an ethnic minority (estimate -0,03; p-value = 0.01).

Second, we test the contextual level hypotheses. H3: The higher proportion of non-EU born immigrants the country has, the more negative attitudes towards immigrants in the country are. We did not find a sufficient support for this hypothesis in the thesis. In the Model 5, proportion of non-EU born immigrants does not have a statistically significant effect on attitudes towards immigrants. The fixed estimate for proportion of non-EU born immigrants (1,0-13,7) is -0,07 (p-value = 0.137). The standardized coefficient for proportion of non-EU immigrants in Model 5 is -0,23. Second, we test the H4: The worse the economic performance of the country is, the more negative attitudes

towards immigrants in the country are. We did not find a sufficient support for this hypothesis in the thesis. In the Model 5, GDP per capita, PPP (25232,2-65416,1) is not a statistically significant predictor of attitudes towards immigrants (fixed effects estimate  $< 001$ ; p-value = 0,181). The standardized coefficient for GDP per capita, PPP in Model 5 is 0,18. The results can be influenced by the small sample (20) of countries. We discuss the results in the section 5. of this thesis.

The third contextual level hypothesis is: H5: The higher the Migrant Integration Policy Index of the country is, the more negative attitudes towards immigrants in the country are. We did not find a support for this hypothesis in the thesis. On the contrary, the higher the MIPEX of the country is, the more positive attitudes towards immigrants in the country are. MIPEX (38-80) has a statistically significant effect on attitudes towards immigrants in all the used models, in the Model 5 the fixed effect estimate is 0,02 (p-value = 0.013). The standardized coefficient for MIPEX in Model 5 is 0,3. We discuss the results further in the part 5. Discussion of this thesis.

## **4.1.2. Results the Human Capital Theory**

### **4.1.2.1. Data Overview**

A summary of the ESS7 data on attitudes towards immigration is reported in the Table 2. We use questions from the ESS7 which ask about attitudes towards immigration of people of different skill levels (professionals or unskilled labourers) from specific poor European or non-European country providing largest number of migrants. The respondents could respond on the 4 point scale (Allow many to come and live here, Allow some, Allow a few, Allow none, and (Don't know)). We recode the four questions to dichotomous variable - 1 - pro-immigration attitudes when the answer was "allow many" or "allow some" and 0 - anti-immigration attitudes when the answer was "allow a few" or "allow none". More about this dependent variable in the part 3.2.1.

On average, respondents prefer professionals to low-skilled immigrants and immigrants from poor European to immigrants from poor non-European countries. Therefore, the most preferred immigrants in the ESS7 are professionals from poor European countries and the least preferred unskilled labourers from poor non-European countries. Table 3 reports immigration preferences by country of respondent. The number is a mean of each dichotomous dependent variable (0 negative attitudes, 1 positive attitudes). The countries are ranked according to GDP per capita, PPP. Respondents seems to be the most in favor of immigration of all skill-levels and countries of origin

of immigrants included to the analysis in Sweden, Germany, France, and Norway. On the other hand, people are the least in favor of immigration of all-skill levels and countries of origin of immigrants included to the analysis in Hungary and Czech Republic.

	Allow many to come and live here	Allow some	Allow a few	Allow none	Total
Allow professionals from [poor European country providing largest number of migrants]	<b>22,8%</b>	<b>45,3%</b>	<b>24,1%</b>	<b>7,7%</b>	<b>100%</b>
	1852	3677	1957	623	8109
Allow professionals from [poor non-European country providing largest number of migrants]	<b>17,9%</b>	<b>44,9%</b>	<b>26,8%</b>	<b>10,4%</b>	<b>100%</b>
	1459	3653	2178	845	8135
Allow unskilled labourers from [poor European country providing largest number of migrants]	<b>9,4%</b>	<b>33,0%</b>	<b>33,7%</b>	<b>23,9%</b>	<b>100%</b>
	774	2716	2769	1962	8221
Allow unskilled labourers from [poor non-European country providing largest number of migrants]	<b>7,6%</b>	<b>25,8%</b>	<b>35,1%</b>	<b>31,5%</b>	<b>100%</b>
	604	2044	2782	2501	7931

Table 2

	Allow professionals from [poor European country providing largest number of migrants]	Allow professionals from [poor non-European country providing largest number of migrants]	Allow unskilled labourers from [poor European country providing largest number of migrants]	Allow unskilled labourers from [poor non-European country providing largest number of migrants]	GDP per capita, PPP
Norway	<b>0,86</b>	<b>0,74</b>	<b>0,62</b>	<b>0,45</b>	65416
Switzerland	<b>0,85</b>	<b>0,74</b>	<b>0,63</b>	<b>0,38</b>	59678
Ireland	<b>0,62</b>	<b>0,47</b>	<b>0,37</b>	<b>0,26</b>	50451
Netherlands	<b>0,63</b>	<b>0,61</b>	<b>0,34</b>	<b>0,32</b>	48271
Austria	<b>0,66</b>	<b>0,56</b>	<b>0,34</b>	<b>0,26</b>	47869
Germany	<b>0,91</b>	<b>0,88</b>	<b>0,64</b>	<b>0,48</b>	46526



Denmark	0,76	0,74	0,53	0,38	45996
Sweden	0,86	0,84	0,70	0,74	45513
Belgium	0,64	0,66	0,43	0,39	43452
Finland	0,72	0,55	0,26	0,19	40713
United Kingdom	0,73	0,70	0,33	0,28	40333
France	0,83	0,78	0,60	0,48	39301
Spain	0,56	0,53	0,24	0,30	33625
Czech Republic	0,44	0,44	0,21	0,21	31573
Slovenia	0,72	0,66	0,53	0,25	30427
Portugal	0,59	0,71	0,36	0,39	28760
Estonia	0,65	0,46	0,53	0,26	27852
Lithuania	0,62	0,58	0,42	0,30	27686
Poland	0,70	0,62	0,47	0,35	25271
Hungary	0,39	0,33	0,09	0,09	25232

Table 3

#### 4.1.2.2. Models – Multilevel Analysis

Based on the nature of the data we use multilevel modeling in the analysis. We perform multilevel logistic regression to test the hypotheses derived from the Human Capital Theory (GENLIMIXED command in SPSS). We test the effect of years of education on attitudes towards immigration of different skill-level of immigrants. We control for gender, age, contact with different race of ethnic group, income, unemployment, belonging to ethnic minority in the country, placement on the left-right scale, and domicile on the individual level (see part 3.2.2. of the thesis). On the contextual level, we use GDP per capita, PPP, percentage of non-EU immigrants, and MIPEX. We present syntaxes of the models in the Attachment 3 and selected results in the Attachment 4.

#### 4.1.2.3. Hypotheses Derived from the Human Capital Theory

We test the H2a: The less years of education the individual has, the more negative his or her attitudes towards immigration of unskilled workers are. To test this hypothesis, we use two recoded dependent variables derived from questions: “To what extent you think [country] should allow unskilled labourers from [poor European country providing largest number of migrants] to come

to live in [country]?” and “To what extent you think [country] should allow unskilled labourers from [poor country outside Europe providing largest number of migrants] to come to live in [country]?”. More about the dependent variables in the part 3.2.1. We found a support for this hypothesis in the thesis. Education has a statistically significant effect on attitudes towards immigration of unskilled laborers from country specific poor European and non-European countries. People with less years of education oppose immigration of unskilled laborers more than more educated people. Moreover, in comparison with other variables in the models, education has the strongest effect on attitudes towards immigration of unskilled laborers (in the second model together with placement on the left-right scale).

First, individuals with one more year of education have 1,10x higher chance to hold positive attitudes towards immigration of unskilled laborers from poor European country (p-value < 0.001). Standardized coefficients allow us to compare relative influence of independent variables on the dependent variable. Education has a highest standardized coefficient from the variables used in the model. When the independent variables are standardized, 1 standard deviation increase in years of education means a 0,38 increase in the log odds of responding in favor of immigration of unskilled laborers from poor European country. The standardized coefficients for other individual variables, which have statistical significant effect on attitudes towards immigration of unskilled laborers from poor European country are: placement on the left-right scale -0,25 (0 left, 10 right; p-value < 0.001); age 0,22 (p-value < 0.001); contact with different race or ethnic group 0,14 (p-value < 0.001); belonging to ethnic minority -0,11 (1=yes, 2=no; p-value = 0.001). Non-statistically significant effect have: income 0,06 (p-value = 0.084); unemployment -0,05 (0=not marked, 1=marked; p-value = 0.1); gender -0,04 (1=male, 2=female; p-value = 0.17); and domicil -0,02 (1=city, 2=village; p-value = 0.46).

Second, individuals with one more year of education have 1,09x higher chance to hold positive attitudes towards immigration of unskilled laborers from poor non-European country (p-value < 0.001). In standardized coefficients, 1 standard deviation increase in years of education means, on average, a 0,35 increase in the log odds of responding in favor of immigration of unskilled laborers from poor non-European country. The standardized coefficients for other individual variables, which have statistical significant effect on attitudes towards immigration of unskilled laborers from poor European country are: placement on the left-right scale -0,35 (p-value < 0.001); contact with

different race or ethnic group 0,14 (p-value < 0.001); and income 0,07 (p-value = 0.04). Non-statistically significant effect have: domicil -0,06 (p-value = 0.07); belonging to ethnic minority 0,06 (p-value = 0.1); gender -0,04 (p-value = 0.18); unemployment 0,03 (p-value = 0.26); and age -0,01 (p-value = 0.72).

The second hypothesis - H2b: The more years of education the individual has, the more negative his or her attitudes towards immigration of professionals are. To test this hypothesis, we include two adjusted dependent variables derived from questions: “To what extent you think [country] should allow professionals from [poor European country providing largest number of migrants] to come to live in [country]?” and “To what extent you think [country] should allow professionals from [poor country outside Europe providing largest number of migrants] to come to live in [country]?” We do not find a support for this hypotheses in the thesis. In contrary, it seems that people with more years of education hold more positive attitudes towards immigration of professionals than people with less years of education.

First, individuals with one more year of education have 1,11x higher chance to hold positive attitudes towards immigration of professionals from poor European country (p-value < 0.001). In standardized coefficients, 1 standard deviation increase in years of education means, on average, a 0,39 increase in the log odds of responding in favor of immigration of professionals from poor European country. The standardized coefficients for other individual variables which have statistical significant effect on attitudes towards immigration of professionals from poor European country are: income 0,18 (p-value = 0.001); placement on the left-right scale -0,17 (p-value < 0.001); contact with different race or ethnic group 0,15 (p-value < 0.001); gender -0,08 (p-value = 0.01). Non-statistically significant effect have: belonging to ethnic minority -0,08 (p-value = 0.08); age 0,07 (p-value = 0.14); and domicil -0,05 (p-value = 0.1).

Second, individuals with one more year of education have 1,09x higher chance to hold positive attitudes towards immigration of professionals from poor non-European country (p-value < 0.001). In standardized coefficients, 1 standard deviation increase in years of education means, on average, a 0,36 increase in the log odds of responding in favor of immigration of professionals from poor non-European country. The standardized coefficients for other individual variables which have statistical significant effect on attitudes towards immigration of professionals from poor European country are: contact with different race or ethnic group 0,19 (p-value < 0.001); placement on the

left-right scale -0,18 (p-value < 0.001); income 0,18 (p-value < 0.001); and domicil -0,07 (p-value = 0.02). Non-statistically significant effect have: unemployment -0,04 (p-value = 0.23); belonging to ethnic minority -0,04 (p-value = 0.28); gender -0,02 (p-value = 0.54); and age -0,02 (p-value = 0.52). We discuss these results later in the part 5. Discussion.

## 5. Discussion

### 5.1. Results Individual Level

It has been argued that, on the individual level, education, income, and unemployment have an effect on attitudes towards immigrants. According to the Ethnic Competition Theory, this effect is caused mainly by competition on labor market between majority population and out-groups. Economically vulnerable people should hold more negative attitudes towards immigrants, because they feel threatened by them. The effect of economic vulnerability of the person on his or her attitudes towards immigrants has been tested in many studies (more about this topic in the section 1.1. of this thesis). In this thesis, we test this effect on new data from ESS7. We also test different explanation of causes of negative attitudes towards immigrants suggested by the Human Capital Theory. According to this theory, more positive attitudes of more educated (skilled) individuals towards immigrants or immigration are not due to economic factors, but due to other factors like education. Second, certain variables are expected to increase competition between majority population and immigrants on the contextual level, therefore they cause more negative attitudes towards immigrants and immigration. The effect of contextual variables on attitudes towards immigrants has not been sufficiently explained yet.

First, we present the results of testing the hypothesis derived from the Ethnic Competition Theory. We found a support for all of the stated hypotheses: H1: Economically vulnerable people will hold more negative attitudes towards immigrants, particularly (1a) the lower the household income of the individual is, the more negative his or her attitudes towards immigrants are. When household income increases by one standard deviation, FIOS index increases by 0.15 (p-value < 0.001). We also found a support for the H1b: The less years of education the individual has, the more negative his or her attitudes towards immigrants are. Education has the strongest effect on attitudes towards immigrants from variables included into our model. When it increases by one standard deviation, FIOS index increases by 0.38 (p-value < 0.001). We also found a support for the H1c: Unemployed people hold more negative attitudes towards immigrants than people who are not unemployed. When this variable changes by one standard deviation, FIOS index decreases by 0.05 (p-value < 0.001).

We found a support for the assumptions based on the Ethnic Competition Theory that higher education (skill-level), income, and employment lead to more positive attitudes towards immigrants. Therefore, it seems in this thesis that more economically vulnerable people hold more negative attitudes towards immigrants, because they have to compete with them in economic area. On the other hand, the Human Capital Theory states that the observed differences in attitudes towards immigrants are due to education and not due to economic vulnerability of members of the majority population. People with more years of education tend to have a better position on labor market. More about this topic in the section 1.2. of this thesis.

Therefore, we compare these results with the results of the hypotheses derived from the Human Capital Theory. A direct comparison of these theories is not possible in this thesis, because we cannot use the same dependent variable to test both of these theories. To test hypotheses derived from the Ethnic Competition Theory (and the Realistic Conflict Theory), scholars usually use dependent variable attitudes towards immigrants, not immigration. To test the hypotheses derived from the Human Capital Theory, we use the approach of Hainmueller and Hiscox (2007), therefore we need to use dependent variable attitudes towards immigration of immigrants of various skill levels. Moreover, ESS7 does not include a variable attitudes towards immigrants of different skill levels. Thus, we can make only indirect comparison of these theories.

On the other hand, used variables attitudes towards immigrants and towards immigration are highly correlated in ESS7. We use Spearman's correlation to approximately determine this association. The variables attitudes toward immigration of all skill-levels of immigrants are measured on the 4 point scale (1=Allow many to come and live here, 2=Allow some, 3=Allow a few, 4=Allow none), the variable attitudes towards immigrants is rounded variable FIOS, measured on 11 point scale (0=negative attitudes; 10=positive attitudes). The Spearman's correlation between variable allbpe: "To what extent you think [country] should allow unskilled labourers from [poor European country providing largest number of migrants] to come to live in [country]?" and rounded variable FIOS is -0.48. The Spearman's correlation between variable allbpne: "To what extent you think [country] should allow unskilled labourers from [poor country outside Europe providing largest number of migrants] to come to live in [country]?" and rounded variable FIOS is also -0.48. The Spearman's correlation between variable alpffe: "To what extent you think [country] should allow professionals from [poor European country providing largest number of migrants] to come to live

in [country]?” and rounded variable FIOS is -0.50. Finally, the Spearman’s correlation between variable *alpfpne* “To what extent you think [country] should allow professionals from [poor country outside Europe providing largest number of migrants] to come to live in [country]?” and rounded variable FIOS is -0.49.

At this point, we present the results of testing the hypotheses derived from the Human Capital Theory H2a: The less years of education the individual has, the more negative his or her attitudes towards immigration of unskilled workers are, and H2b: The more years of education the individual has, the more negative his or her attitudes towards immigration of professionals are. These hypotheses aim to test the assumption of the Ethnic Competition Theory that members of majority population should oppose immigration of immigrants with their skill level, because they feel threatened by them on labor market. We have found a support for the H2a hypothesis. People with less years of education more probably hold more negative attitudes towards immigration of unskilled laborers from poor countries than to professionals. People with one more year of education have 1.10x higher chance to hold positive attitudes towards immigration of unskilled laborers from poor European and 1,09x higher chance to hold positive attitudes towards immigration of unskilled laborers from poor non-European country (p-value < 0.001). In standardized coefficients, 1 standard deviation increase in education means, on average, a 0.38 increase in the log odds of responding in favor of immigration of unskilled laborers from poor European country and 0.35 increase in the log odds of responding in favor of immigration of unskilled laborers from poor non-European country.

On the other hand, we did not find a support for the hypothesis H2b: The more years of education the individual has, the more negative his or her attitudes towards immigration of professionals are. People with higher education more probably hold more positive attitudes towards immigration of both skill levels of immigrants (laborers as well as professionals). This result contradicts the assumption that people with more years of education should oppose immigration of professionals, because they threaten their jobs. People with one more year of education have 1,10x higher chance to hold positive attitudes towards immigration of professionals from poor European country (p-value < 0.001) and 1,09x higher chance to hold positive attitudes towards immigration of professionals from poor non-European country (p-value < 0.001). In standardized coefficients, 1 standard deviation increase in the years of education, on average, a 0.39 increase in the log odds of

responding in favor of immigration of professionals from poor European country and 0.36 increase in the log odds of responding in favor of immigration of professionals from poor non-European country. It is interesting to note that placement on the left-right scale has higher effect on attitudes towards immigration of unskilled laborers and lower effect on attitudes towards immigration of professionals. However, this topic is not the subject of this thesis.

We should note here, that the questions ask about immigration of professionals or of unskilled laborers from country specific poor country. For example a respondent in one country is asked to what extent the country should allow professionals from Poland to come to live in the country. Other respondent in the same country is asked to what extent the country should allow unskilled laborers from Poland to come to live in the country. Therefore, the differences between attitudes towards immigration of immigrants of different skill-level should not be caused by cultural, or other differences between the sending countries.

In conclusion, it seems in this thesis that the most important predictor of attitudes towards immigrants and immigration on the individual level is education. We did not find a clear support for the assumptions derived from the Ethnic Competition Theory. Individuals with less years of education should not oppose immigration of professionals, because they do not threaten their jobs. We can see in the analysis that low-skilled members of the majority population hold more negative attitudes towards immigration of professionals than members of majority population with higher education. Moreover, we can see from the results that members of the majority population with higher education tend to favor immigration of both skill levels of immigrants, therefore their attitudes towards immigration do not seem to depend on labor market competition. Therefore, we find a support for the Human Capital Theory in this thesis. In other words, it is possible that attitudes towards immigrants and immigration are not caused by competition on labor market, but by attitudes that people acquire through education. It should be stated here that there are also other theories, which try to explain association between education and attitudes towards immigrants or immigration. Therefore, it is possible that the impact of the educational system on attitudes towards immigration or immigrants may not be the main reason for the association between education and attitudes towards immigration. Nevertheless, these results seem to be in contradiction with the assumption that negative attitudes towards immigration (or immigrants) are caused by economic vulnerability of the people. This topic should be studied further.



## 5.2. Results Contextual Level

On the contextual level, the Ethnic Competition Theory states that people hold more negative attitudes towards immigrants in the countries with higher proportion of out-groups and worse economic conditions. Some scholars also state that people will feel more threatened when the immigration policy of the country is more permissive. More about this topic in the part 1.1. of this thesis.

First, we present the results of hypotheses testing. We did not find a support for the hypotheses that GDP per capita, PPP of the country and proportion of non-EU born immigrants have an effect on attitudes towards immigrants. First, proportion of non-EU born immigrants does not have a statistically significant effect on attitudes towards immigrants in the used model. The fixed estimate for proportion of non-EU born immigrants is -0.07 (p-value = 0.137). The standardized coefficient for proportion of non-EU born immigrants in the used model is -0.23. It means that when the percentage of non-EU born immigrants increases by one standard deviation, FIOS index decreases by 0.23 (more negative attitudes). Second, GDP per capita, PPP is not a statistically significant predictor of attitudes towards immigrants in the used model (fixed effects estimate < 001; p-value = 0,181). The standardized coefficient for GDP per capita, PPP in the used model is 0.18. It means that when the GDP per capita, PPP increases by one standard deviation, FIOS index increases by 0.18. On the other hand, disadvantage of this thesis is that we use just sample of 20 countries. To test the country level hypotheses, larger sample of countries should be included into the analysis.

Finally, we present the results of testing the hypothesis H5: The higher the Migrant Integration Policy Index of the country is, the more negative attitudes towards immigrants in the country are. The results contradict the hypothesis. MIPEX has statistically significant positive effect on attitudes towards immigrants. In the used model, the fixed effect estimate is 0.02 (p-value = 0.013). The standardized coefficient for MIPEX is 0.3. It means that when the MIPEX of the country increases by one standard deviation, FIOS index increases by 0.3. When the MIPEX of the country is higher, attitudes towards immigrants in the country are more positive.

As has been stated earlier in this thesis, effect of MIPEX of the country on attitudes towards immigrants in the country has been rarely studied. One line of research assumes that more permissive migrant integration policies lead to higher perception of threat in a country, therefore

negative attitudes towards immigrants. We did not find a support for this assumption in this thesis. In contrary with this assumption, we found that when the MIPEX of the country is higher (more permissive migrant integration policy), attitudes towards immigrants in the country are more positive. It seems that MIPEX should not be included among variables that cause higher competition between the majority population and out-groups in the countries. On the other hand, some scholars propose that there is a positive effect of more permissive immigration policies (for example measured as MIPEX) on attitudes towards immigrants. It is possible that people tend to change their attitudes in accordance with social norms or that they learn the values derived from the official migrant integration policies through socialization. On the other hand, attitudes towards immigration and immigrants can influence migration policies of the countries. Therefore, it is possible that the effect is in the opposite direction - positive attitudes towards immigrants in the country influence formation of immigration policies. In any case, this topic should be studied further. More about this topic in the section 1.1.2. of this thesis.

In conclusion, the theoretical assumption about an effect of GDP per capita, PPP and percentage of non-EU immigrants on attitudes towards immigrants was not supported in this thesis, but this effect should be studied on a larger sample of countries. Second, MIPEX has a reverse effect on attitudes towards immigrants than we expected based on the Ethnic Competition Theory. More permissive migrant integration policy of a country is associated with more positive attitudes towards immigrants in the country. This effect should be further studied.

# Conclusions

The main aim of this thesis was to determine what affects cross-national differences in attitudes towards immigrants in Europe while using theoretical framework of the Ethnic Competition Theory, the Human Capital Theory, and other related theories. The thesis finds a support for the Human Capital Theory, but does not find a clear support for the Ethnic Competition Theory. It seems from our analysis that the most important variables which are associated with attitudes towards immigrants are education on the individual, and MIPEX of the country on contextual level.

We found a support for all the hypotheses derived from the Ethnic Competition Theory on the individual level. It is frequently stated that differences in attitudes towards immigrants among members of majority population are caused by competition on labor market. It is assumed that most of the incoming immigrants compete for low-skill jobs with majority population in receiving countries. Therefore, low skilled members of majority population hold more negative attitudes towards immigrants and immigration. We found a support for the claim that economic vulnerability of a person is associated with his or her attitudes towards immigrants. On the other hand, the association between individual attitudes towards immigrants and economic vulnerability can be due to education. Lower education of a person can lead to lower income and higher probability of unemployment.

Therefore, we test the assumption that it is the education and not the economic vulnerability of a person what cause negative attitudes towards immigrants and immigration in the thesis. If the attitudes towards immigrants are caused by competition on labor market, professionals in the receiving country should hold negative attitudes towards immigration of professionals, but not towards immigration of low-skilled workers. On the contrary, it seems in this thesis that people with higher education hold more positive attitudes towards immigration of both skill levels of immigrants, professionals and laborers, than members of majority population with less years of education.

First, we found a support for the hypothesis that people with less years of education oppose immigration of low-skilled immigrants. On the other hand, they also oppose immigration of professionals more probably than people with higher education. Low-skilled workers have to compete for jobs with low-skilled immigrants, therefore they should not oppose immigration of

professionals. Second, we did not find a support for the hypothesis that the more years of education the individual has, the more negative his or her attitudes towards immigration of professionals are. Professionals (more educated people) have to compete for jobs with immigrating professionals, therefore they should oppose immigration of professionals. In comparison, it seems from our analysis that people with more years of education (professionals) tend to hold more positive attitudes towards immigration of both skill levels of immigrants than people with less years of education (low-skilled workers). In conclusion, this thesis does not find a clear support for the assumption that economic competition on individual level leads to more negative attitudes towards immigration. On the other hand, the thesis finds a support for the Human Capital Theory. It seems that attitudes towards immigrants can be caused by other individual-level factors than skill-level, for example by education. This topic should be studied further.

On the contextual level, we did not find a support for the hypotheses derived from the Ethnic Competition Theory that GDP per capita, PPP and proportion of non-EU immigrants in the country affect attitudes towards immigrants. When the country is poor, majority population should feel greater threat from immigrants. Therefore, the lower the GDP per capita, PPP of the country is, the more negative attitudes towards immigrants in the country should be. Similarly, higher proportion of non-EU immigrants in the country should lead to higher competition between majority population and immigrants, therefore to more negative attitudes towards them. We did not find a support for these hypotheses in the thesis, but it can be due to low sample of countries included into the analysis. The influence of these variables on attitudes towards immigrants should be studied further.

We also did not find a support for the hypothesis that the higher the Migrant Integration Policy Index of the country is, the more negative attitudes towards immigrants in the country are. On the other hand, we have found a reverse effect of the MIPEX on attitudes towards immigrants in the country. It seems that more permissive migrant integration policy of a country does not lead to higher competition between majority population and immigrants. It is also possible that the relationship is reversed and more positive attitudes towards immigrants lead to more permissive policies towards immigrants. Thus, the association between migrant integration policies and attitudes towards immigrants should be studied further.

In conclusion, attitudes towards immigrants seems to be most affected by education on the individual, and MIPEX of the country on the contextual level. It seems that economic threat from immigrants may not play as big role in causing negative attitudes towards immigrants and immigration as is often expected. The assumptions of the Human Capital Theory about causes of attitudes towards immigrants and immigration should be studied further as well as the association between attitudes towards immigrants and migrant integration policies.

# Summary

This thesis determines what affects cross-national differences in attitudes towards immigrants and immigration in Europe. We use mainly theoretical framework of the Ethnic Competition Theory and the Human Capital Theory in the thesis. The topic attitudes towards immigrants and immigration is important today because new immigrants arrive in Europe and attitudes towards them are changing in a negative way. Therefore, it is important to pay attention to attitudes of the majority population of various countries in Europe towards immigrants and immigration, and to what can be the reasons for such attitudes.

On the individual level, the main interest of the thesis is the different view of the Ethnic Competition Theory and the Human Capital Theory on whether it is labor market competition or education what leads to individual differences in attitudes towards immigrants and immigration. The thesis is also interested in the effect of contextual level variables on attitudes towards immigrants. Multilevel models are used to test the hypotheses based on these theories. We use individual level data from European Social Survey 2013 and country level data from World Bank/Eurostat.

The thesis finds a support for the Human Capital Theory, but does not find a clear support for the Ethnic Competition Theory. Even though economic vulnerability of a person is associated with attitudes towards immigrants, this association can be due to education. We test the assumption that it is the education and not the economic vulnerability of a person what causes negative attitudes towards immigrants and immigration in the thesis. If the attitudes towards immigrants are caused by labor market competition, professionals should hold negative attitudes towards immigration of professionals, but not to immigration of low-skilled workers. It seems in this thesis that individuals with higher education tend to hold more positive attitudes towards immigration of both skill levels of immigrants than individuals with less years of education.

On the contextual level, the thesis also does not find a support for the Ethnic Competition Theory. The presupposed association between attitudes towards immigrants and contextual level variables GDP per capita and percentage of non-EU immigrants is not supported in this thesis. The association of Migrant Integration Policy Index and attitudes towards immigrants is in opposite direction than we assumed based on the Ethnic Competition Theory. The higher (more permissive)

MIPEX of the country is, the more positive the attitudes towards immigrants in the country are. The influence of contextual level variables on attitudes towards immigrants should be studied on greater sample of countries.

In conclusion, it seems that economic threat from immigrants may not play as big role in causing negative attitudes towards immigrants and immigration as it is often expected. The assumptions of the Human Capital Theory about causes of attitudes towards immigrants and immigration should be studied further as well as the association between attitudes towards immigrants and migrant integration policies.

# Resources

- Barceló, J., 2016. Attitudes toward immigrants and immigration policy in Asia and the Pacific: a quantitative assessment of current theoretical models beyond western countries. *Asian Journal of Political Science* [Online]. **24**(1), 87-123.
- Bello, V., 2016. Inclusiveness as Construction of Open Identity: How Social Relationships Affect Attitudes Towards Immigrants in European Societies. *Social Indicators Research* [Online]. **126**(1), 199-223.
- Berg, J. A., 2010. RACE, CLASS, GENDER, AND SOCIAL SPACE: Using an Intersectional Approach to Study Immigration Attitudes. *The Sociological Quarterly* [Online]. **51**, 278-302.
- Blalock, H. M. 1956. Economic Discrimination and Negro Increase. *American Sociological Review*. **21**, 584-588.
- Blalock, H. M., 1967. *Toward a Theory of Minority-group Relations*. New York: John Wiley and Sons.
- Blumer H., 1958. Race Prejudice as a Sense of Group Position. *The Pacific Sociological Review* [Online]. **1**(1), 3-7.
- Bobo, L., 1983. Whites' Opposition to Busing: Symbolic Racism or Realistic Group Conflict? *Journal of Personality and Social Psychology* [Online]. **45**(6), 1196-1210.
- Bridges, S. and Mateut, S., 2014. Should they stay or should they go? Attitudes towards immigration in Europe. *Scottish Journal of Political Economy* [Online]. **61**(4), 397–429.
- Campbell, D. T., 1965. Ethnocentric and Other Altruistic Motives. *Nebraska symposium on motivation 13: 283–311*.
- Ceobanu, A. M. and Escandell X., 2010. Comparative Analyses of Public Attitudes Toward Immigrants and Immigration Using Multinational Survey Data: A Review of Theories and Research. *Annual Review of Sociology* [online]. **36**(1), 309-328. DOI: 10.1146/annurev.soc.012809.102651.



- Chaloupková, J. and Šalamounová, P., 2006. Postoje k imigrantům a dopadům migrace v evropských zemích. *Sociologický časopis* [online]. **42**(1), 57-80. DOI:
- Chandler, C. R., and Tsai, Y.-M., 2001. Social Factors Influencing Immigration Attitudes: An Analysis of Data from the General Social Survey. *Social Science Journal*. **38**(2), 177-188.
- Citrin, J., Green, D.P. and Muste, C., 1997. Public Opinion Towards Immigration Reform: The Role of Economic Motivations. *The Journal of Politics* [Online]. **59**(3), 858-881.
- Coenders, M., 2001. *Nationalistic attitudes and ethnic exclusionism in a comparative perspective. An empirical study of attitudes toward the country and ethnic immigrants in 22 countries*. Nijmegen: ICS-dissertation.
- Coenders, M., and Scheepers, P., 1998. Support for ethnic discrimination in the Netherlands 1979-1993: Effects of period, cohort and individual characteristics. *European Sociological Review*. **14**, 405-422.
- Coenders, M., Lubbers, M. and Scheepers, P., 2005. Majorities' Attitudes towards Minorities in Western and Eastern European Societies, Results from European Social Survey 2002—2003. *Report 4 for the European Monitoring Center on Racism and Xenophobia*.
- Coser, L., 1956. The Function of Social Conflict. *The Free Press*. Glencoe, Ill.
- Coser, L., 1957. Social Conflict and the Theory of Social Change. *The British Journal of Sociology* [Online]. **8**(3), 197-207.
- Davidov, E., Meuleman, B., Cieciuch, J., Schmidt, P., and Billiet, J., 2014. Measurement Equivalence in Cross-National Research. *Annu. Rv. Sociol.* [Online]. **40**, 55-75.
- Davidov, E. and Meuleman, B., 2012. Explaining Attitudes Towards Immigration Policies in European Countries: The Role of Human Values. *Journal of Ethnic and Migration Studies* [Online]. **38**(5), 757-775.
- DiGiusto G. M. and Jolly S. K., 2009. Xenophobia and Immigrant Contact: British Public Attitudes toward Immigration. APSA 2009 Toronto Meeting Paper. Available at SSRN: <https://ssrn.com/abstract=1452208>

- Escandell, X. and Ceobanu A. M., 2009. When contact with immigrants matters: threat, interethnic attitudes and foreigner exclusionism in Spain's Comunidades Autónomas. *Ethnic and Racial Studies* [Online]. **32**(1), 44-69.
- Espenshade, T.J. and Calhoun C.A., 1993. An Analysis of Public Opinion Toward Undocumented Immigration. *Population Research and Policy Review* [Online]. **12**(3), 189-224.
- ESS Round 1: European Social Survey, 2014. *ESS-1 2002 Source Questionnaire*. Bergen: European Social Survey Data Archive, NSD - Norwegian Centre for Research Data for ESS ERIC.
- ESS Round 7: European Social Survey Round 7 Data, 2014. *Data file edition 2.0. NSD - Norwegian Centre for Research Data*. Norway: Data Archive and distributor of ESS data for ESS ERIC.
- ESS Round 7: European Social Survey, 2016a. *ESS-7 2014 Documentation Report*. Edition 3.0. Bergen: European Social Survey Data Archive, NSD - Norwegian Centre for Research Data for ESS ERIC.
- ESS Round 7: European Social Survey, 2016b. *ESS-7 2014 Source Questionnaire*. Bergen: European Social Survey Data Archive, NSD - Norwegian Centre for Research Data for ESS ERIC.
- Eurostat, 2015. *Foreign-born population by country of birth* [Online].
- Eurostat, 2016a. *Migrant integration statistics - education* [Online].
- Eurostat, 2016b. *Eurostat metadata* [Online].
- Facchini G. and Mayda A. M., 2009. Does the Welfare State Affect Individual Attitudes toward Immigrants? Evidence Across Countries. *The Review of Economics and Statistics* [Online]. **91**(2), 295-314.
- Gorodzeisky, A., 2011. Who are the Europeans that Europeans prefer? Economic conditions and exclusionary views toward European immigrants. *International Journal of Comparative Sociology* [online]. **52**(1-2), 100-113.

- Gorodzeisky, A., 2013. Mechanisms of exclusion: attitudes toward allocation of social rights to out-group population. *Ethnic and Racial Studies* [online]. **36**(5), 795-817.
- Gorodzeisky, A. and Semyonov M., 2016. Not only Competitive Threat but also Racial Prejudice: Sources of Anti-Immigrant Attitudes in European Societies. *International Journal of Public Opinion Research* [Online]. **28**(3), 331-354.
- Hainmueller, J. and Hiscox, M.J., 2007. Educated preferences: Explaining attitudes toward immigration in Europe. *International Organization* [Online]. **61**(02), 399-442.
- Hainmueller, J. and Hiscox, M.J., 2010. Attitudes toward Highly Skilled and Low-skilled Immigration: Evidence from a Survey Experiment. *American Political Science Review* [Online]. **104**(01), 61-84.
- Hainmueller, J. and Hopkins D. J., 2014. Public Attitudes toward Immigration. *Annual Review of Political Science*. **17**, 225-249.
- Hantrais, L. and Mangen, S., 1996. *Cross-national research methods in the social sciences*. London: Pinter. 1st ed.
- Harkness, J., 2010. *Survey methods in multinational, multiregional, and multicultural contexts*. Hoboken, N.J.: Wiley. 1st ed.
- Haubert, J. and Fussel E., 2006. Explaining Pro-Immigrant Sentiment in the U.S.: Social Class, Cosmopolitanism, and Perceptions of Immigrants. *The International Migration Review* [Online]. **40**(3), 489-507.
- Heck, R. H., Thomas S. L. and Tabata L. N., 2012. *Multilevel Modeling of Categorical Outcomes Using IBM SPSS*. New York: Routledge.
- Hellwig, T. and Kweon Y., 2016. Taking cues on multidimensional issues: the case of attitudes toward immigration. *West European Politics* [Online]. **39**(4), 710-730.
- Hendl, J., 2006. *Přehled statistických metod zpracování dat: analýza a metaanalýza dat*. Praha: Portál. 2nd ed.
- Herreros, F. and Criado, H., 2009. Social Trust, Social Capital and Perceptions of Immigration. *Political Studies* [Online]. **57**, 337-355.

- Hjerm, M., 2007. Do Numbers Really Count? Group Threat Theory Revisited. *Journal of Ethnic and Migration Studies* [Online]. **33**(8), 1253-1275.
- Jolly, S. K. and Digusto G. M., 2014. Xenophobia and immigrant contact: French public attitudes toward immigration. *The Social Science Journal* [online]. **51**(3), 464-473. DOI: 10.1016/j.soscij.2013.09.018.
- Kreft I. and Leeuw, J., 1998. *Introducing Multilevel Modeling*. London: SAGE Publications.
- Kunovich, R.M., 2002. Social Structural Sources of Anti-immigrant Prejudice in Europe. *International Journal of Sociology* [Online]. **32**(1), 39-57.
- Kunovich, R. M., 2004. Social structural position and prejudice: an exploration of cross-national differences in regression slopes. *Social Science Research* [online]. **33**(1), 20-44. DOI: 10.1016/S0049-089X(03)00037-1.
- Marozzi, M., 2016. Construction, Robustness Assessment and Application of an Index of Perceived Level of Socio-Economic Threat from Immigrants: A Study of 47 European Countries and Regions. *Social Indicators Research* [online]. **128**(1), 413-437. DOI: 10.1007/s11205-015-1037-z.
- Masso, A., 2009. A Readiness to Accept Immigrants in Europe? Individual and Country-Level Characteristics. *Journal of Ethnic and Migration Studies* [Online]. **35**(2), 251-270.
- Mayda, A. M., 2006. Who Is Against Immigration? A Cross-Country Investigation of Individual Attitudes toward Immigrants. *Review of Economics and Statistics* [online]. **88**(3), 510-530. DOI: 10.1162/rest.88.3.510.
- McLaren, L.M., 2003. Anti-immigrant prejudice in Europe: Contact, threat perception, and preferences for the exclusion of migrants. *Social Forces* [Online]. **81**(3), 909–936.
- www.mipex.eu, 2017. *Migrant Integration Policy Index | MIPEX 2015* [Online]. Available at: <http://www.mipex.eu/>
- OECD, 2017. *Foreign-born population (indicator)*.
- O'Rourke, K.H. and Sinnott R., 2006. The determinants of individual attitudes towards immigration. *European Journal of Political Economy* [Online]. **22**(4), 838-861.

- Paas, T. and Halapuu V., 2012. Attitudes towards immigrants and the integration of ethnically diverse societies. *Eastern Journal of European Studies* [Online]. **2012**(3), 161-176.
- Pardos-Prado, S., 2011. Framing Attitudes Towards Immigrants in Europe: When Competition Does Not Matter. *Journal of Ethnic and Migration Studies* [Online]. **37**(7), 999-1015.
- Pettigrew, T. F. and Tropp L. R., 2006. A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology* [Online]. **90**(5), 751-783.
- Pichler, F., 2010. Foundations of anti-immigrant sentiment: The variable nature of perceived group threat across changing European societies 2002-2006. *International Journal of Comparative Sociology* [Online]. **51**(6), 445-469.
- Quillian, L., 1995. Prejudice as a Response to Perceived Group Threat: Population Composition and Anti-Immigrant and Racial Prejudice in Europe. *American Sociological Review* [Online]. **60**(4), 586-611.
- Riek, B.M., Mania E.W. and Gaertner S.L., 2006. Intergroup Threat and Outgroup Attitudes: A Meta-Analytic Review. *Personality and Social Psychology Review* [Online]. **10**(4), 336-353.
- Ruist J., 2016. How the macroeconomic context impacts on attitudes to immigration: Evidence from within-country variation. *Social Science Research* [Online]. **60**, 125-134.
- Rustenbach, E., 2010. Sources of Negative Attitudes toward Immigrants in Europe: A Multi-Level Analysis. *International Migration Review* [Online]. **44**(1), 53-77.
- Scheepers, P., Gijsberts, M. and Coenders, M., 2002. Ethnic Exclusionism in European Countries. Public Opposition to Civil Rights for Legal Migrants as a Response to Perceived Ethnic Threat. *European Sociological Review* [Online]. **18**(1), 17-34.
- Scheve, K.F. and Slaughter, M. J., 2001. Labor market competition and individual preferences over immigration policy. *Review of Economics and Statistics* [online]. **83**(1), 133-145. DOI: 10.1162/003465301750160108.
- Schlueter, E., Meuleman B. and Davidov E., 2013. Immigrant Integration policies and perceived Group Threat: A Multilevel Study of 27 Western and Eastern European Countries. *Social Science Research* [Online]. **42**(3), 670-682.

- Schlueter, E., and Scheepers P., 2010. The Relationship between Outgroup Size and Anti-outgroup Attitudes: A Theoretical Synthesis and Empirical Test of Group Threat- and Intergroup contact Theory. *Social Science Research* [Online]. **39**(2010), 285-295.
- Schneider, S.L., 2008. Anti-immigrant attitudes in Europe: Outgroup size and perceived ethnic threat. *European Sociological Review* [Online]. **24**(1), 53–67.
- Semyonov, M. and Glikman, A., 2009. Ethnic residential segregation, social contacts, and anti-minority attitudes in European societies. *European Sociological Review* [Online]. **25**(6), 693–708.
- Semyonov, M., Raijman, R. and Gorodzeisky, A., 2006. The Rise of Anti-foreigner Sentiment in European Societies, 1988-2000. *American Sociological Review* [Online]. **71**, 426-449.
- Semyonov, M., Raijman, R. and Gorodzeisky, A., 2008. Foreigners' Impact on European Societies. *International Journal of Comparative Sociology* [Online]. **49**(1), 5-29.
- Sherif, M., and Sherif C. W., 1953. *Groups in harmony and tension*. New York: Harper.
- Sherif, M., and Sherif C. W., 1979. Research on Intergroup Relations. In W. G. Austin and S. Worchel (Eds.), *The Social Psychology of Intergroup Relations* (pp. 7.18). Monterey, CA: Brooks/Cole.
- Sherif, M., White, B. J., and Harvey, O. J., 1955. Status in experimentally produced groups. *Amer. J. Sociol.* **60**, 370-379.
- Sherif, M., Harvey, O. J., White, B. J., Hood, W. R, and Sherif, Carolyn W., 1961. *Intergroup conflict and cooperation. Robbers Cave experiment*. Norman, Okla.: University of Oklahoma Book Exchange.
- Simon, R. J. and Sikich K. W., 2007. Public Attitudes toward Immigrants and Immigration Policies across Seven Nations. *The International Migration Review* [online]. **41**(4), 956-962.
- Soukup, P., 2006. Proč užívat hierarchické lineární modely?. *Czech Sociological Review* [Online]. **42**(5), 987-1012.
- Tajfel H., 1981. *Human Groups and Social Categories: Studies in Social Psychology*. Cambridge: Cambridge University Press.

- Tajfel, H., 1982. Social psychology of intergroup relations. *Annual Review of Psychology*. **33**, 1-39.
- Tajfel, H. and Turner, J., 1979. An integrative theory of intergroup conflict. In Austin, W. and Worchel, S. (eds). *The Social Psychology of Intergroup Relations*. Monterey: Brooks/Cole.
- Tajfel H., Flament, C., Billig, M. and Bundy, R., 1971. Social Categorization and Intergroup Behaviour. *European Journal of Social Psychology*. **1**, 149-178.
- Turner, J. C., 1982. Towards a Cognitive Redefinition of the Social Group. In H. Tajfel (Ed.), *Social Identity and Intergroup Relations* (pp. 15-40). Cambridge: Cambridge University Press.
- Vogt, W.P., 1983. Social Tolerance and Education. *The Review of Education* [Online]. **9**(1), 41-52.
- Weighting European Social Survey Data, 2014. *European Social Survey Data Archive*. NSD - Norwegian Centre for Research Data for ESS ERIC.
- Weldon S.A., 2006. The Institutional Context of Tolerance for Ethnic Minorities: A Comparative, Multilevel Analysis of Western Europe. *American Journal of Political Science* [Online]. **50**(2), 331-349.
- Wolman H., Feldstain A., MacKay J. Ch. and Rocchi, M., 2012. An introduction to hierarchical linear modeling. *Tutorials in Quantitative Methods for Psychology* [Online]. **8**(1), 52-69.
- World Bank, 2016a. *The World Bank Group*. Available at: <http://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2014&start=1960> [Accessed 23 Dec. 2016]
- World Bank, 2016b. *The World Bank Group*. Available at: <http://search.worldbank.org/data?qterm=gdp+per+capita&language=EN&format=> [Accessed 31 Dec. 2016]
- Wright, M. (2009). Citizenship Regimes and European Attitudes on Immigrant Diversity. *Midwest Political Science Association Annual Meetin*

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## Attachment 1

Syntax (Model 2):

```
MIXED FIOS WITH gdpppp pimigrnoneu MIPEX  
/PRINT=SOLUTION TESTCOV  
/FIXED = INTERCEPT gdpppp pimigrnoneu MIPEX | SSTYPE(3)  
/RANDOM=INTERCEPT | subject (centry1).
```

Syntax (Model 4):

```
MIXED FIOS WITH gndr agea eduysr dfegcon uempla lrscale blgetmg domicil1 gdpppp  
pimigrnoneu MIPEX  
/FIXED = INTERCEPT gdpppp pimigrnoneu MIPEX gndr agea eduysr dfegcon uempla lrscale  
blgetmg domicil1 | SSTYPE(3)  
/PRINT=SOLUTION TESTCOV  
/RANDOM=INTERCEPT agea eduysr dfegcon lrscale | subject (centry1) covtype (un).
```

Syntax (Model 5):

```
MIXED FIOS WITH gndr agea eduysr dfegcon hinctnta uempla blgetmg lrscale domicil1 MIPEX  
gdpppp pimigrnoneu  
/FIXED = INTERCEPT gndr agea eduysr dfegcon hinctnta uempla blgetmg lrscale domicil1  
MIPEX gdpppp pimigrnoneu | SSTYPE(3)  
/PRINT=SOLUTION TESTCOV  
/RANDOM=INTERCEPT agea eduysr dfegcon hinctnta lrscale | subject (centry1) covtype (un).
```

Syntax (Model 6):

```
MIXED FIOS WITH gndr agea eduysr dfegcon hinctnta uempla blgetmg lrscale domicil1 MIPEX  
gdpppp pimigrnoneu  
/FIXED = INTERCEPT MIPEX gdpppp pimigrnoneu gdpppp*pimigrnoneu gndr agea eduysr  
dfegcon hinctnta uempla blgetmg lrscale domicil1 | SSTYPE(3)  
/PRINT=SOLUTION TESTCOV  
/RANDOM=INTERCEPT agea eduysr dfegcon hinctnta lrscale | subject (centry1) covtype (un).
```

## Attachment 2

### Results Model 4 – without income

-2 Restricted Log Likelihood	102669,376
Akaike's Information Criterion (AIC)	102701,376
Hurvich and Tsai's Criterion (AICC)	102701,396
Bozdogan's Criterion (CAIC)	102849,209
Schwarz's Bayesian Criterion (BIC)	102833,209

The information criteria are displayed in smaller-is-better form.

a. Dependent Variable: FIOS.

#### Estimates of Fixed Effects<sup>a</sup>

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	2,307031	,580068	21,449	3,977	,001	1,102248	3,511814
gdpppp	1,333287E-5	1,026201E-5	15,822	1,299	,212	-8,441519E-6	3,510727E-5
pimigrnoneu	-,013927	,035185	15,680	-,396	,698	-,088640	,060786
MIPEX	,024368	,008907	15,978	2,736	,015	,005484	,043252
gnr	-,058038	,018156	27909,534	-3,197	,001	-,093624	-,022452
agea	,000513	,001623	19,214	,316	,755	-,002882	,003909
edyrs	,106127	,007329	18,798	14,481	,000	,090776	,121478
dfegcon	,061980	,011188	20,043	5,540	,000	,038646	,085314
uempla	-,378479	,046446	27933,620	-8,149	,000	-,469515	-,287442
lrscle	-,087338	,021064	18,739	-4,146	,001	-,131466	-,043209
blgetmg	-,212757	,068209	27423,254	-3,119	,002	-,346450	-,079065
domicil1	-,075077	,019490	27934,779	-3,852	,000	-,113278	-,036875

a. Dependent Variable: FIOS.

### Results Model 5 – with income

-2 Restricted Log Likelihood	84021,779
Akaike's Information Criterion (AIC)	84065,779
Hurvich and Tsai's Criterion (AICC)	84065,823
Bozdogan's Criterion (CAIC)	84264,769

Schwarz's Bayesian Criterion (BIC)	84242,769
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The information criteria are displayed in smaller-is-better form.

a. Dependent Variable: FIOS.

**Estimates of Fixed Effects<sup>a</sup>**

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	2,288501	,596554	20,641	3,836	,001	1,046582	3,530419
gndr	-,063998	,019866	22950,133	-3,221	,001	-,102936	-,025059
agea	,003426	,001545	17,998	2,217	,040	,000180	,006672
edyrs	,098654	,007369	17,546	13,387	,000	,083143	,114164
dfegcon	,058750	,011862	19,041	4,953	,000	,033927	,083572
hinctnta	,053365	,007094	17,546	7,522	,000	,038433	,068296
uempla	-,274498	,051008	22877,189	-5,381	,000	-,374476	-,174519
blgetmg	-,209103	,081352	22774,601	-2,570	,010	-,368559	-,049647
lrscle	-,102581	,022270	17,700	-4,606	,000	-,149425	-,055737
domicil1	-,100329	,021165	22771,125	-4,740	,000	-,141813	-,058845
MIPEX	,024915	,008817	14,722	2,826	,013	,006091	,043740
gdpppp	1,656907E-5	1,177703E-5	14,437	1,407	,181	-8,618638E-6	4,175679E-5
pimigrnoneu	-,073682	,046826	14,574	-1,574	,137	-,173745	,026381

a. Dependent Variable: FIOS.

**Standardized coefficients**

**Estimates of Fixed Effects<sup>a</sup>**

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	4,641202	,112184	11,341	41,371	,000	4,395191	4,887214
Zgndr	-,031967	,009923	22950,133	-3,221	,001	-,051417	-,012517
Zagea	,064500	,029091	17,998	2,217	,040	,003381	,125619
Zedyrs	,384131	,028694	17,546	13,387	,000	,323735	,444526
Zdfegcon	,127031	,025648	19,041	4,953	,000	,073358	,180704
Zhinctnta	,147209	,019569	17,546	7,522	,000	,106018	,188399
Zuempla	-,054660	,010157	22877,189	-5,381	,000	-,074568	-,034751
Zblgetmg	-,029092	,011318	22774,601	-2,570	,010	-,051276	-,006907
Zlrscle	-,224807	,048804	17,700	-4,606	,000	-,327466	-,122148
Zdomicil1	-,049064	,010350	22771,125	-4,740	,000	-,069351	-,028777
ZMIPEX	,301052	,106541	14,722	2,826	,013	,073592	,528513
Zgdpppp	,182201	,129506	14,437	1,407	,181	-,094775	,459178
Zpimigrnoneu	-,232775	,147932	14,574	-1,574	,137	-,548890	,083341

a. Dependent Variable: FIOS.

## Attachment 3

### European country unskilled laborers

DATASET ACTIVATE DataSet2.

GENLINMIXED

/DATA\_STRUCTURE SUBJECTS=centry1

/FIELDS TARGET=allbpe2 TRIALS=NONE OFFSET=NONE

/TARGET\_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT

/FIXED EFFECTS=gndr agea eduysr dfegcon hinctnta uempla blgetmg lrscall domicill

MIPEX gdpppp pimigrnoneu USE\_INTERCEPT=TRUE

/RANDOM EFFECTS=agea USE\_INTERCEPT=TRUE SUBJECTS=centry1

COVARIANCE\_TYPE=VARIANCE\_COMPONENTS

/BUILD\_OPTIONS TARGET\_CATEGORY\_ORDER=DESCENDING

INPUTS\_CATEGORY\_ORDER=DESCENDING

MAX\_ITERATIONS=100 CONFIDENCE\_LEVEL=95 DF\_METHOD=RESIDUAL

COVB=MODEL PCONVERGE=0.000001(ABSOLUTE)

SCORING=0 SINGULAR=0.000000000001

/EMMEANS\_OPTIONS SCALE=ORIGINAL PADJUST=LSD.

### Non-European country unskilled laborers

GENLINMIXED

/DATA\_STRUCTURE SUBJECTS=centry1

/FIELDS TARGET=allbpne2 TRIALS=NONE OFFSET=NONE

/TARGET\_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT

/FIXED EFFECTS=gndr agea eduysr dfegcon hinctnta uempla blgetmg lrscall domicill

MIPEX gdpppp pimigrnoneu USE\_INTERCEPT=TRUE

/RANDOM EFFECTS=lrscall USE\_INTERCEPT=TRUE SUBJECTS=centry1

COVARIANCE\_TYPE=VARIANCE\_COMPONENTS

/BUILD\_OPTIONS TARGET\_CATEGORY\_ORDER=DESCENDING

INPUTS\_CATEGORY\_ORDER=DESCENDING

MAX\_ITERATIONS=100 CONFIDENCE\_LEVEL=95 DF\_METHOD=RESIDUAL

COVB=MODEL PCONVERGE=0.000001(ABSOLUTE)

```
SCORING=0 SINGULAR=0.000000000001  
/EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
```

### **European country professionals**

```
GENLINMIXED
```

```
/DATA_STRUCTURE SUBJECTS=cnty1  
/FIELDS TARGET=alpfp2 TRIALS=NONE OFFSET=NONE  
/TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT  
/FIXED EFFECTS=gndr agea eduyrs dfegcon hinctnta uempla blgetmg lrscale domicil1
```

```
MIPEX gdpppp pimigrnoneu USE_INTERCEPT=TRUE
```

```
/RANDOM EFFECTS=agea hinctnta lrscale USE_INTERCEPT=TRUE SUBJECTS=cnty1  
COVARIANCE_TYPE=VARIANCE_COMPONENTS  
/BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING
```

```
INPUTS_CATEGORY_ORDER=DESCENDING
```

```
MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL  
COVB=MODEL PCONVERGE=0.000001(ABSOLUTE)  
SCORING=0 SINGULAR=0.000000000001  
/EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
```

### **Non-European country professionals**

```
GENLINMIXED
```

```
/DATA_STRUCTURE SUBJECTS=cnty1  
/FIELDS TARGET=alpfp2 TRIALS=NONE OFFSET=NONE  
/TARGET_OPTIONS DISTRIBUTION=BINOMIAL LINK=LOGIT  
/FIXED EFFECTS=gndr agea eduyrs dfegcon hinctnta uempla blgetmg lrscale domicil1
```

```
MIPEX gdpppp pimigrnoneu USE_INTERCEPT=TRUE
```

```
/RANDOM EFFECTS=agea hinctnta USE_INTERCEPT=TRUE SUBJECTS=cnty1  
COVARIANCE_TYPE=VARIANCE_COMPONENTS  
/BUILD_OPTIONS TARGET_CATEGORY_ORDER=DESCENDING
```

```
INPUTS_CATEGORY_ORDER=DESCENDING
```

```
MAX_ITERATIONS=100 CONFIDENCE_LEVEL=95 DF_METHOD=RESIDUAL  
COVB=MODEL PCONVERGE=0.000001(ABSOLUTE)  
SCORING=0 SINGULAR=0.000000000001  
/EMMEANS_OPTIONS SCALE=ORIGINAL PADJUST=LSD.
```

## Attachment 4

### European country unskilled laborers

#### Model Summary

Target	allbpe2	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	25225,024
	Bayesian	25238,296

Information criteria are based on the -2 log likelihood (25221,022) and are used to compare models. Models with smaller information criterion values fit better.

#### Classification

Overall Percent Correct = 68,0%<sup>a</sup>

Observed		Predicted	
		1,00	,00
1,00	Count	1474	1036
	% within Observed	58,7%	41,3%
,00	Count	773	2367
	% within Observed	24,6%	75,4%

a. Target: allbpe2

**Fixed Coefficients<sup>a</sup>**

Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp (Coefficient)	95% Confidence Interval for Exp (Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-2,232	1,0350	-2,156	,031	-4,261	-,203	,107	,014	,817
gnldr=2	-,081	,0589	-1,380	,168	-,197	,034	,922	,822	1,035
gnldr=1	0 <sup>b</sup>								
agea	,012	,0021	5,666	,000	,008	,016	1,012	1,008	1,016
edyrs	,097	,0091	10,721	,000	,080	,115	1,102	1,083	1,122
dfegcon	,065	,0162	4,031	,000	,033	,097	1,067	1,034	1,102
hincthta	,021	,0122	1,752	,080	-,003	,045	1,022	,997	1,046
uempla=1	-,265	,1608	-1,645	,100	-,580	,051	,767	,560	1,052
uempla=0	0 <sup>b</sup>								
blgetmg=2	-,801	,2460	-3,255	,001	-1,283	-,319	,449	,277	,727
blgetmg=1	0 <sup>b</sup>								
lrSCALE	-,112	,0138	-8,129	,000	-,140	-,085	,894	,870	,918
domicil1=2	-,045	,0625	-,724	,469	-,168	,077	,956	,845	1,080
domicil1=1	0 <sup>b</sup>								
MIPEX	-,001	,0160	-,065	,949	-,032	,030	,999	,968	1,031
gdpppp	1,270E-5	2,1442E-5	,592	,554	-2,933E-5	5,474E-5	1,000	1,000	1,000
pimigraoneu	,094	,0853	1,100	,271	-,073	,261	1,098	,929	1,298

Probability distribution: Binomial

Link function: Logit

a. Target: allbpe2

b. This coefficient is set to zero because it is redundant.



Standardized coefficients - European country unskilled laborers

Fixed Coefficients<sup>a</sup>

Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp (Coefficient)	95% Confidence Interval for Exp (Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-.356	,1787	-1,991	,047	-.706	-.005	,701	,494	,995
Zgndr	-.041	,0294	-1,387	,165	-.098	,017	,960	,906	1,017
Zagea	,222	,0409	5,425	,000	,142	,302	1,248	1,152	1,353
Zeduyrs	,379	,0354	10,719	,000	,310	,449	1,461	1,364	1,567
Zdfegcon	,141	,0350	4,022	,000	,072	,209	1,151	1,075	1,233
Zhinctnta	,058	,0337	1,726	,084	-.008	,124	1,060	,992	1,132
Zuempla	-.053	,0320	-1,646	,100	-.116	,010	,949	,891	1,010
Zbigetmg	-.111	,0342	-3,253	,001	-.178	-.044	,895	,837	,957
Zirscale	-.247	,0303	-8,136	,000	-.306	-.187	,781	,736	,829
Zdomicil1	-.023	,0306	-,739	,460	-.083	,037	,978	,921	1,038
ZMIPEX	,014	,1901	,074	,941	-.359	,387	1,014	,699	1,472
Zgdpppp	,133	,2323	,574	,566	-.322	,589	1,143	,725	1,802
Zpimigrnoneu	,346	,2654	1,303	,193	-.174	,866	1,413	,840	2,378

Probability distribution: Binomial

Link function: Logit

a. Target: allbpe2

## Non-European country unskilled laborers

### Model Summary

Target	allbpne2	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	25658,078
	Bayesian	25671,340

Information criteria are based on the -2 log likelihood (25654,076) and are used to compare models. Models with smaller information criterion values fit better.

### Classification

Overall Percent Correct = 71,9%<sup>a</sup>

Observed		Predicted	
		1,00	,00
1,00	Count	750	1213
	% within Observed	38,2%	61,8%
,00	Count	366	3292
	% within Observed	10,0%	90,0%

a. Target: allbpne2

**Fixed Coefficients<sup>a</sup>**

Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp (Coefficient)	95% Confidence Interval for Exp (Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-4,357	,9689	-4,497	,000	-6,257	-2,458	,013	,002	,086
gnrf=2	-,085	,0616	-1,383	,167	-,206	,036	,918	,814	1,036
gnrf=1	0 <sup>b</sup>								
agea	-,001	,0019	-,389	,698	-,004	,003	,999	,996	1,003
eduyrs	,089	,0092	9,691	,000	,071	,107	1,093	1,074	1,113
dfegcon	,064	,0172	3,750	,000	,031	,098	1,066	1,031	1,103
hincnta	,026	,0124	2,094	,036	,002	,050	1,026	1,002	1,052
uempla=1	,164	,1516	1,080	,280	-,133	,461	1,178	,875	1,586
uempla=0	0 <sup>b</sup>								
bigetmg=2	,417	,2549	1,636	,102	-,083	,917	1,517	,921	2,501
bigetmg=1	0 <sup>b</sup>								
lrscale	-,161	,0290	-5,563	,000	-,218	-,104	,851	,804	,901
domicil1=2	-,120	,0660	-1,812	,070	-,249	,010	,887	,780	1,010
domicil1=1	0 <sup>b</sup>								
MIPEX	,012	,0148	,823	,411	-,017	,041	1,012	,983	1,042
gdpppp	2,243E-5	1,9735E-5	1,137	,256	-1,626E-5	6,112E-5	1,000	1,000	1,000
pimigrmoneu	,141	,0788	1,786	,074	-,014	,295	1,151	,986	1,343

Probability distribution: Binomial

Link function: Logit

a. Target: allbpne2

b. This coefficient is set to zero because it is redundant.

Standardized coefficients - Non-European country unskilled laborers

Fixed Coefficients<sup>a</sup>

Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp (Coefficient)	95% Confidence Interval for Exp (Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-.761	,1410	-5,397	,000	-1,038	-.485	,467	,354	,616
Zgn dr	-.042	,0308	-1,354	,176	-.102	,019	,959	,903	1,019
Zagea	-.013	,0361	-.362	,717	-.084	,058	,987	,920	1,059
Zeduyrs	,346	,0358	9,651	,000	,275	,416	1,413	1,317	1,515
Zdfegcon	,140	,0371	3,778	,000	,068	,213	1,151	1,070	1,238
Zhinctnta	,071	,0343	2,084	,037	,004	,139	1,074	1,004	1,149
Zuempla	,034	,0302	1,122	,262	-.025	,093	1,034	,975	1,098
Zbigetmg	,058	,0355	1,630	,103	-.012	,127	1,060	,988	1,136
Zlr scale	-.346	,0698	-4,956	,000	-.483	-.209	,707	,617	,811
Zdomicil1	-.059	,0323	-1,835	,067	-.123	,004	,942	,885	1,004
ZMIPEX	,247	,1501	1,649	,099	-.047	,542	1,281	,954	1,719
Zgdpppp	-.008	,1830	-.045	,964	-.367	,351	,992	,693	1,420
Zpimignoneu	,292	,2093	1,393	,164	-.119	,702	1,339	,888	2,018

Probability distribution: Binomial

Link function: Logit

a. Target: allbpne2

## European country professionals

### Model Summary

Target	alpffe2		
Probability Distribution	Binomial		
Link Function	Logit		
Information Criterion	Akaike Corrected		26979,524
	Bayesian		27006,150

Information criteria are based on the -2 log likelihood (26971,517) and are used to compare models. Models with smaller information criterion values fit better.

### Classification

Overall Percent Correct = 74,3%<sup>a</sup>

Observed		Predicted	
		1,00	,00
1,00	Count	3865	268
	% within Observed	93,5%	6,5%
,00	Count	1214	423
	% within Observed	74,2%	25,8%

a. Target: alpffe2

**Fixed Coefficients<sup>a</sup>**

Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp (Coefficient)	95% Confidence Interval for Exp (Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-.1,084	,9251	-1,172	,241	-2,898	,729	,338	,055	2,074
gnldr=2	-.158	,0638	-2,469	,014	-.283	-.032	,854	,754	,968
gnldr=1	0 <sup>b</sup>	.	.	.	.	.	.	.	.
agea	,004	,0021	1,673	,094	-.001	,008	1,004	,999	1,008
eduyrs	,100	,0101	9,938	,000	,080	,120	1,105	1,084	1,127
dfegcon	,071	,0171	4,131	,000	,037	,104	1,073	1,038	1,110
hinctnta	,068	,0194	3,497	,000	,030	,106	1,070	1,030	1,112
uempla=1	-.124	,1559	-.794	,427	-.429	,182	,884	,651	1,199
uempla=0	0 <sup>b</sup>	.	.	.	.	.	.	.	.
bigetmg=2	-.547	,3067	-1,784	,074	-1,148	,054	,579	,317	1,056
bigetmg=1	0 <sup>b</sup>	.	.	.	.	.	.	.	.
lrSCALE	-.073	,0197	-3,693	,000	-.111	-.034	,930	,895	,966
domicil1=2	-.110	,0673	-1,630	,103	-.241	,022	,896	,785	1,022
domicil1=1	0 <sup>b</sup>	.	.	.	.	.	.	.	.
MIPEX	-.001	,0136	-.077	,938	-.028	,026	,999	,973	1,026
gdpppp	1,620E-5	1,8397E-5	,881	,379	-1,987E-5	5,226E-5	1,000	1,000	1,000
pimigmoneu	,060	,0731	,821	,412	-.083	,203	1,062	,920	1,225

Probability distribution: Binomial

Link function: Logit

a. Target: alppe2

b. This coefficient is set to zero because it is redundant.

Standardized coefficients - European country professionals

Fixed Coefficients<sup>a</sup>

Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp (Coefficient)	95% Confidence Interval for Exp (Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	,997	,1517	6,574	,000	,700	1,295	2,711	2,014	3,650
Zgndr	-,079	,0319	-2,462	,014	-,141	-,016	,924	,868	,984
Zagea	,066	,0441	1,496	,135	-,020	,153	1,068	,980	1,165
Zeduyrs	,390	,0393	9,920	,000	,313	,467	1,477	1,367	1,595
Zdfegcon	,154	,0371	4,156	,000	,081	,227	1,167	1,085	1,255
Zhinctnta	,179	,0532	3,367	,001	,075	,283	1,196	1,078	1,328
Zuempla	-,025	,0311	-,799	,424	-,086	,036	,975	,918	1,037
Zbigetmg	-,076	,0426	-1,780	,075	-,159	,008	,927	,853	1,008
Zlrscale	-,166	,0471	-3,527	,000	-,259	-,074	,847	,772	,929
Zdomicil1	-,054	,0329	-1,639	,101	-,118	,011	,947	,888	1,011
ZMIPEX	,104	,1617	,645	,519	-,213	,421	1,110	,808	1,524
Zgdppppp	,223	,1983	1,126	,260	-,166	,612	1,250	,847	1,844
Zpimigmoneu	,211	,2254	,936	,349	-,231	,653	1,235	,794	1,921

Probability distribution: Binomial

Link function: Logit

a. Target: alpfpe2

## Non-European country professionals

### Model Summary

Target	alpfne2	
Probability Distribution	Binomial	
Link Function	Logit	
Information Criterion	Akaike Corrected	25838,476
	Bayesian	25858,394

Information criteria are based on the -2 log likelihood (25832,471) and are used to compare models. Models with smaller information criterion values fit better.

### Classification

Overall Percent Correct = 70,6%<sup>a</sup>

Observed		Predicted	
		1,00	,00
1,00	Count	3383	400
	% within Observed	89,4%	10,6%
,00	Count	1268	620
	% within Observed	67,2%	32,8%

a. Target: alpfne2



Fixed Coefficients<sup>a</sup>

Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp (Coefficient)	95% Confidence Interval for Exp (Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	-1,492	,6981	-2,137	,033	-2,860	-,123	,225	,057	,884
gndf=2	-,046	,0614	-,749	,454	-,166	,074	,955	,847	1,077
gndf=1	0 <sup>b</sup>	.	.	.	.	.	.	.	.
agea	-,001	,0025	-,515	,607	-,006	,004	,999	,994	1,004
edyvrs	,093	,0096	9,683	,000	,074	,112	1,097	1,077	1,118
dfegcon	,090	,0163	5,512	,000	,058	,122	1,094	1,059	1,129
hinctnta	,067	,0187	3,560	,000	,030	,103	1,069	1,030	1,109
uempl=1	-,188	,1525	-1,230	,219	-,486	,111	,829	,615	1,118
uempl=0	0 <sup>b</sup>	.	.	.	.	.	.	.	.
bigetmg=2	-,284	,2535	-1,121	,262	-,781	,213	,753	,458	1,237
bigetmg=1	0 <sup>b</sup>	.	.	.	.	.	.	.	.
lrscale	-,081	,0141	-5,734	,000	-,109	-,053	,922	,897	,948
domicil=2	-,147	,0643	-2,288	,022	-,273	-,021	,863	,761	,979
domicil=1	0 <sup>b</sup>	.	.	.	.	.	.	.	.
MIPEX	,017	,0099	1,669	,095	-,003	,036	1,017	,997	1,037
gdpppp	-3,396E-6	1,3232E-5	-,257	,797	-2,934E-5	2,254E-5	1,000	1,000	1,000
pimigraoneu	,046	,0530	,862	,389	-,058	,150	1,047	,943	1,161

Probability distribution: Binomial

Link function: Logit

a. Target: altpne2

b. This coefficient is set to zero because it is redundant.

Standardized coefficients - European country professionals

Fixed Coefficients<sup>a</sup>

Model Term	Coefficient	Std. Error	t	Sig.	95% Confidence Interval		Exp (Coefficient)	95% Confidence Interval for Exp (Coefficient)	
					Lower	Upper		Lower	Upper
Intercept	,736	,1396	5,275	,000	,463	1,010	2,088	1,588	2,745
Zgndr	-,023	,0307	-,755	,450	-,083	,037	,977	,920	1,038
Zagea	-,032	,0489	-,646	,518	-,127	,064	,969	,880	1,066
Zeduyrs	,362	,0374	9,683	,000	,289	,436	1,437	1,335	1,546
Zdfegcon	,194	,0352	5,512	,000	,125	,263	1,214	1,133	1,301
Zhinctnta	,175	,0493	3,555	,000	,079	,272	1,192	1,082	1,313
Zuempla	-,037	,0305	-1,214	,225	-,097	,023	,964	,908	1,023
Zblgetmg	-,039	,0354	-1,092	,275	-,108	,031	,962	,898	1,031
Zlrscale	-,179	,0309	-5,782	,000	-,239	-,118	,836	,787	,889
Zdomicil1	-,071	,0315	-2,252	,024	-,133	-,009	,931	,876	,991
ZMIPEX	,166	,1488	1,115	,265	-,126	,457	1,180	,882	1,580
Zgdppppp	-,046	,1817	-,251	,802	-,402	,311	,955	,669	1,364
Zpimignoneu	,352	,2070	1,700	,089	-,054	,758	1,422	,948	2,134

Probability distribution: Binomial

Link function: Logit

a. Target: alfpne2