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Attitudes toward immigration
A mapping of the development and analysis in attitudes towards immigration in Europe

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Abstract

The research on natives' attitudes regarding immigration has increased during the past decades. The overall findings question the common theory of labor market competition and that native attitudes are affected by personal economic considerations. In the same time an increased concern in the political debate has become immigration. In many countries, there is a growth and progress of political parties with a far-right orientation that disapproves and attempts to prevent immigration. We examine data on attitudes towards immigration from eight rounds of the European social survey (ESS) which covers the years between 2002-2016. We study if the attitudes in Europe towards immigration from poor non-member countries of the European Union have changed during the 21th century and examine if the massive acceleration of refugee applications during the refugee crisis in 2015 has had an impact on the attitudes towards immigration. We estimate different models to examine how different factors are associated with individuals' attitudes towards immigration. Furthermore, we test if the labor market competition model holds for the seventh round of ESS due to limitation in data. We find that natives' attitudes have not become worse in Europe, and that the refugee crisis in 2015 has not made the attitudes worse. We find that the factors that are associated with individual attitudes towards immigration are to a large degree connected with cultural values and beliefs, and that individuals with more years of schooling are more likely to favor immigration regardless of where the immigrants come from. These findings are consistent with the growing body of empirical findings that considers that cultural values and believes are the main drivers of attitudes towards immigration, and that actual effects of immigration on income and employment are quite small. These findings put the labor market competition premise in forming immigration attitudes into question.

Keywords

Thanks

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1. Introduction

In the end of 2015 there were over 21 million refugees[1] worldwide, which is the highest documented number since the end of the Second World War (Esses, Hamilton, and Gaucher, 2017). Since 2006 the number of asylum[2] applications to Europe from residents of non-member countries has gradually increased. In 2012, the pace of the applications increased and in 2015 and 2016 the number of applications was around 1.3 million (Eurostat, 2018). This drastic increase in applications is mostly a result of the conflicts in Syria, which is the largest reason of migration by far. However, the violence in Afghanistan and Iraq and some other countries is also a big driver for migration (Eurostat, 2018; BBC, 2016). The travel to Europe for the migrants and refugees is far from safe, according to the IOM 3,771 died in 2015 trying to cross the Mediterranean, which makes it the deadliest year so far (IOM, 2016). The country in Europe that received the most asylum applications in 2015 was Germany, but in proportion to its population Hungary, Sweden and Austria received the highest number of applications (Eurostat, see figure appendix).

Due to the increase in refugees' worldwide a major challenge has been to find durable solutions for integration and resettlement in new host countries. For this to succeed, requirement of favorable attitudes by host societies is at its core. It has been shown in ESS (2017) that people with a migrant background are better integrated in inclusive countries. And furthermore, according to ESS (2017) it has been argued that: "policymakers in democratic states take into account public preferences when designing integration policies, in order to reduce the risk of losing votes and to avoid the likelihood of public reprisals in the form of protests or public disobedience." For refugees to successfully integrate protection of the well-being for refugee and an effective integration strategy is necessary. Awareness on public attitudes are therefore important when looking at what acculturation strategy immigrants might choose. Determinants of public attitudes, acculturation strategies and factors affecting immigrants' mental health is all important and directly connected to immigrant resettlement. According to Esses et al. (2017) policy implications supporting and

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[1] Refugees are people with a well-founded fear of persecution for reasons of race, religion, nationality, politics or membership of a particular social group who have been accepted and recognized as such in their host country. (europarl)

[2] Asylum seekers are people who make a formal request for asylum in another country because they fear their life is at risk in their home country. (europarl)

improving public attitudes against immigration is important to reduce mental health challenges for immigrants and support long-term acculturation and integration to their new homes.

Over several years an important section in the political debate in Europe and other parts of the world has been immigration. In many countries there is a growth and progress of political parties of the so-called 'radical right' who disapproves and attempt to prevent immigration, which indicates that the voters regard immigration as one of the biggest challenge facing their country (ESS, 2016). This development can be explained by the view and perception the individuals have towards immigration. The natives can be worried that the immigrants might take their jobs, have a negative impact on the finances of the government, increase crime and impair the society, and undermine the traditional culture. However, on the other hand, the immigration can be perceived as a boost to the economy and culture, provide skilled workers to companies, and introduce new thoughts and views to the country (Hainmueller and Hiscox, 2007).

An explanation to the mixed opinions about immigration can be that the theoretical predictions of its impact on the economy and labor market is unclear. The fact that the models depend a lot on certain assumptions creates an uncertainty. And to decide the true effect of immigration can sometimes be regarded as an empirical question (Lowenstein, 2006). The research on natives' attitudes regarding immigration has increased during the past decades. The overall findings question the common theory of labor market competition and that native attitudes are affected by personal economic considerations. Instead it has been shown that cultural values and beliefs are driving factors in shaping attitudes towards immigration (Hainmueller and Hopkins, 2014).

In the past, many countries around the world have had problems with the integration of ethnic minorities. In Algan et al. (2010) they show that the majority population has higher employment, education, and income than the ethnic minorities in U.K., Germany and France. These disparities have also been recognized in Sweden in Eriksson (2010). According to Carlsson & Eriksson (2017) the refugee crisis is likely to reinforce and increase the inequality between the ethnic minorities and the majority population. Carlsson and Eriksson therefore argues that it is essential to know if ethnic discrimination is present, because it is possible that this will negatively affect the integration of the minority. If discrimination exists on minority groups and migration of minority groups increases, this would most likely further enforce inequality.

In this thesis, we study if the attitudes in Europe towards immigration from poor non-member countries of the European Union have changed during the 21th century. And we examine if the massive acceleration of refugee applications during the refugee crisis in 2015 has had an impact on the attitudes towards immigration. Many different factors can be accountable in forming attitudes towards immigration. We will therefore estimate different models and try to examine how different factors are associated with individuals' attitudes towards immigration. We focus on some specific European countries where we had appropriate data available. The data that is used in this thesis is retrieved from the ESS. This survey contains a wide range of different aspects of individuals' characteristics, for instance behavior patterns, beliefs and attitudes. And since its inception in 2002 ESS has been surveyed in more than thirty nations. Furthermore, a test will also be performed for the labor market competition hypothesis, that individuals form their attitudes towards immigrants based on worries about for example their wages and employment. The test performed in this thesis is in line with Hainmuller and Hiscox (2007) that uses data from ESS 2002, but the test in this thesis is done on data retrieved in 2014. Questions about immigration is especially focused on in 2002 and 2014 in ESS and therefore the test for the labor market competition hypothesis can't be performed for all ESS rounds. We argue that the data retrieved in 2014 is an improvement compared to 2002 because the questions is better designed, and we don´t have to make as many assumptions compared to previous studies, for example whether the immigrants are low- or high skilled. This gives us a more accurate estimate when we test for the labor market competition model.

Most previous studies on attitudes have either done regression-like estimates a snapshot in time using cross-sectional data or done experiments to test different correlates to attitudes. In this paper we look at panel-data which give us the opportunity to examine changes over time. This has not been done in many previous study and the main focus of this paper is to map attitudes in Europe in the 21th century. In addition to this, we will look closer to how the attitudes have been changed after the refugee crisis that happened in 2015. One strength of this paper is our data where we have access to 12 countries over 14 years with a rich set of controls to test how different characteristics might affect attitudes. We will not make use of any specific econometric techniques when looking at the refugee crisis but rather do a visual examination to see if it has been any change in attitudes. This is because the refugee crisis cannot be treated as an exogenous shock since refugee immigration has gradually increased since 2010. The

models used is an extension of previous research and applied to 12 countries over 14 years.

This thesis is organized as follows. Chapter 2 contains a literature review. In chapter 3 we present the theoretical framework. Chapter 4 presents the data, variables and the methodological approach. The results are presented and analyzed in chapter 5. There is a discussion in chapter 6 and finally, chapter 7 concludes the thesis.

2. Literature review

This chapter presents the most central empirical work on natives' attitudes towards immigration and an overview of the recent refugee crisis in Europe. In recent decades, the populations of immigrants have increased rapidly in many developed countries, and that has also the relevant empirical research on natives' attitudes regarding immigration. This research can be divided into two broad categories, as in Hainmueller and Hopkins (2014) who performs an extensive review of the recent research on immigration attitudes. The first category they call the political economy and the second is named sociopsychological. The political economy originates mainly from common economic theory and the drivers is mainly drawn from material self-interest where the sociopsychological perspective is more homogenous in tradition and stem from cultural beliefs, values and morals. In the theory section when describing the 'integrated threat theory of prejudice', *realistic threats* could be argued more associated to the political economic perspective whereas *symbolic threats* are more associated with the sociopsychological perspective.

First, we look closer at the political economic and sociopsychological perspective and try to shed light on the recent literature on the subject. Second, we describe the current refugee crisis in 2015 and bring forward recent research on what effect it might have in the receiving country.

2.1 The political economy

The political economy perspective originates from common economic theories of immigrants influences on the economy, and it is the material self-interest of the natives that drives the immigration attitudes. It can be explained as if the natives and immigrants compete for different properties, for example jobs, transfers or taxes. The political economy approach is both easier to test and evaluate compared to the sociopsychological perspective that will be described later.

2.1.1 Labor competition

One of the most debated topics about immigration in receiving countries concerns what impacts immigrants will have on the labor market opportunities of native-born workers, according to Borjas (2013, p. 164-165). An article in the political economy literature is Scheve & Slaughter (2001), which describes the relationship between the labor market impacts of immigrants and immigration attitudes. Scheve and Slaughter use the factor

proportion (FP) model[3] and assume that immigrants and natives are perfect substitutes. The model explains that the supply of low skilled labor will rise when low skilled immigrants enter the labor market. This will lower the employment or wages for low skilled natives but increase for the high skilled. If it is high skilled immigrants who enter the labor market the effect will be the opposite. Scheve and Slaughter argues that natives expect that immigration will affect their wages depending on their own individual skills, but also on the immigrants'. They find that lower skilled natives have a higher probability to be against immigration, which according to the authors are in line with the FP model if the assumptions hold.

Another article that use the FP model and examines attitudes of natives is Mayda (2006). Mayda finds that countries with natives that are higher skilled on average compared to immigrants will encourage immigration.

However, the FP model and the conclusions described above have been questioned both empirically and theoretically, for example in Hainmueller & Hiscox (2007). The effect of immigration on natives' wages is quite unclear because the economic models can be interpreted very differently based on which assumptions that are made. Hainmueller and Hiscox use ESS data to test the FP model. They don´t find any support for it, instead they find that higher skilled natives have better attitudes towards immigration regardless of the skill levels of the immigrants and their results doesn't change when only observing respondents that were outside the labor force.

The conclusions above are substantiated in Hainmuelller & Hiscox (2010) that neither find any evidence that the FP model is accurate. Hainmueller and Hiscox suggest that it is cultural beliefs and values of the natives that drives the relationship between skills and pro-immigration. This put the central assumption in the political economy literature into question that states that material self-interest of the natives' cause immigration attitudes.

Some studies argue that the labor competition premise should be tested with other measures of economic vulnerability. Dancygier & Donnelly (2013) argues that natives' attitudes towards immigration is driven by how it will affect their industries in general, not by personal concerns about wages. They use ESS data and observe native attitudes towards immigration in different sectors on the labor market and find that the support for immigration differs between different kinds of sectors. Another finding in the paper

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[3] This model will be described in more detail in the theory chapter.

is that national economic conditions also have an impact on attitudes, they got worse in sectors that had a higher number of immigrants after the financial crisis 2008.

Another article, Malhotra et al. (2013), argues that immigrants do not economically threaten all natives. If only the threatened natives are examined there should be an effect of labor market competition, according to the authors. They do this by using targeted sampling in specific sectors, like using a "magnifying glass" as the authors put it. They find that native personnel in high-tech sectors are more against extending visas to workers from abroad, which works in the same sector, compared with native workers in other sectors.

2.1.2 Fiscal burden

It is not only the natives concerns about the labor market impacts of the immigrants that can form immigration attitudes, another part in the political economy literature talks about the fiscal burden of immigration. A study on this topic is Hanson et al. (2007) that use a modified version of the FP model to describe this relationship. They combine the basic FP model with a simple model of public finance and the idea is that transfers and taxes get affected by immigration and, in turn, affects the final income of the natives. An implied assumption in the paper is that the taxes redistribute the wealth and income between rich and poor individuals. The model assumes that high-skilled immigrants will have a positive effect on public finances, meaning that an increase of high-skilled immigration will lower the taxes and increase the transfers. If there is low-skilled immigration it will have the opposite effect. This model predicts that the natives with higher income should have better attitudes towards high-skilled immigrants and worse attitudes towards low-skilled immigrants. In their analysis Hanson et al. (2007) get results that are consistent with the predictions of their model.

These findings have been questioned in Hainmueller & Hiscox (2010). They test the fiscal burden model of attitude formation using a survey experiment and finds that both poor and rich natives are equally against immigration of low-skilled individuals. These results are inconsistent with the predictions in Hanson et al. (2007) and Hainmueller and Hiscox argues that theories about economic self-interest cannot explain attitudes toward immigration. They conclude that an alternative hypothesis about sociotropic considerations, that immigration may affect the whole economy, can give a better explanation to their results.

Some of the empirical results differ in the political economy articles discussed

above. One of the most explored explanations of immigration attitudes is labor market competition. This argument is both theoretical and plausible a priori. However, the accumulated findings weights towards the idea that self-interested concerns about fiscal burden and labor market competition are not the prevailing drivers of natives' attitudes toward immigration.

2.2 Sociopsychological

The sociopsychological perspective is more heterogeneous in tradition compared to the political economy where emphasizes lie in the sociotropic effect on the receiving country. It is heterogeneous in the sense that it is studying individuals own perception on immigration. When looking at the sociopsychological perspective you have to make a distinction between the cultural and economic effect. From a cultural perspective, individual's sociotropic view could be drawn from signaling effects when individuals are directly exposed to different ethnicities. This could come from meeting immigrants in the store, buying food at the chines restaurant or listening to the foreign artist in the local pub. Differences in skin-color, language or other visible characteristics can act as a signal to categorize individuals to different ethnicities. One might enjoy food, music or other entertainment originating from other cultures but at the same time hold negative attitudes towards individuals from that ethnicity. One has to make the distinction between these two perspectives clear since it is possible to support free trade of goods from other cultures and simultaneously hold negative attitudes to immigrants when having to interact and live amongst them. This is especially true when native could feel threatened in any way from both *realistic* and *symbolic threats* as will be discussed later in the paper in the theory section[4]. Individuals is allowed to have bad attitudes whereas discrimination, as a way of acting on someone's attitudes, are illegal.

Also, one has to make the distinction on what time-perspective you are looking at when talking about the sociopsychological perspective. In the political economic view results can vary if you are looking in the long- or short-term. Attitudes stemming from cultural differences such as individuals' values, norms, beliefs and morals are often set and can be though not to change too much in the short-run but instead gradually in the long-run. Often when studying cultural aspects cross-sectional data is used studying a snapshot in time and not many studies have been done looking at long-term changes. To the authors knowledge comparison on attitudes over time has only been done when

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[4] See chapter 3.3, 'Integrated threat theory of prejudice'.

looking at the effect of 9/11 where it was hypothesized attitudes to certain ethnicities would become worse. The effects from these studies might just be temporary in the coming years after the event and there has not been any real long-term study examining if attitudes later return. Since it was such a grueling event, attitudes might have changed in the short-run but returned when the event was not as fresh in everyone's mind. These differences are difficult to measure since there is no numbers to crunch making it a complicated and illusive subject for researchers. Discrimination, attitudes and preferences are all interrelated and what and how it is examined can alter results significantly therefore researchers in this subject have to be clear on what is examined. Preferences is often set and robust and do not change over time since you most likely would prefer one commodity/ethnicity over the other no matter what. Attitudes towards different entities however, could be argued to change to a larger degree. Both preferences and attitudes are something personal and holding negative attitudes might not be acknowledges if not exposed to certain entity. Whereas discrimination on the other hand is something you act upon due to different attitudes and preferences.

Research looking at the sociopsychological perspective is divided into two main groups, observational- and experimental studies. Observational studies are, just as this thesis and most other papers done on the subject, when you are analyzing data and regressor-like estimator to recognize correlates of immigrant attitudes. It is often a problem identifying causality and ruling out alternative explanations for the results. Experimental studies include random assignment which is considered the golden standard of social psychological studies, however they often lack external validity. As discussed previously it is little known to what happens to attitudes in long-run and experimental designs might affect how individuals act in the short-run making it hard interpreting the results.

As we will see later, both media and political parties have a big responsibility on how they portray immigrants where perceived threats among different ethnicities can have an impact on individuals' attitudes.

2.2.1 Observational studies on the sociopsychological perspective

Segovia & Defever (2010) show in an observational study that attitudes vary depending on what questions is being asked and this result has reappeared in other studies since. Sociotropic effects are most commonly thought to be cultural but can also be economic which is supported by Citrin et al. (1997). In their observational study conducted on the 1992 and 1994 National Election Study they found little or no effect on opinions on

immigration due to personal economic circumstances where beliefs about the states national economy, anxiety over taxes and generalized feeling over immigrants prove influential. In a later study, using ESS data from 2002, Sides & Citrin (2007) support their claim that personal economic circumstances have little correlation with immigrant attitudes whereas cultural homogeneity on the other hand can act as a strong predictor.

Actual immigration level in a country has also shown little explanatory power whereas perceived immigration flow can matter (Blinder 2013). Opposition to immigration rises with increased misperception about the number of immigrants coming to their country. This hypothesis is also supported in the United States and Britain (Citrin & Sides 2008, McLaren & Johnson 2007). Measures of *symbolic threat* and the immigrations sociotropic economic impact on a country seem to be strongly correlated with attitudes about the overall immigration.

It is hard to interpret any clear evidence for what might be important on shaping individuals' attitudes. Both economic and cultural aspects seem to influence it in different ways and how you conduct your estimates seem to matter for what results you get. This could easily alter the conventional story about attitudes on immigration if it is fundamentally based on a misinterpretation of the available evidence. For our analysis, it seems to matter more how the perception of immigration flow is compare to actual flow. The statistics show an increase of refugee and immigration but what might matter more seem to be what media reports and flow is perceived. Media coverage on the refugee crisis peaked in 2015 which could, according to previous research, make attitudes worse. Also, according to Myria et al. (2017) refugees is often depicted as a group of unskilled outsiders who are either vulnerable or dangerous. This was found when studying how media portrayed refugees and immigrants during 2015 in eight European countries[5].

2.2.2 Experimental studies on the sociopsychological perspective
What todays experimental studies could conclude on immigration attitudes can be summarized with what is said in Sniderman et al. (2004, p. 56):

"Prejudice is blind in a deep sense. It reflects a dislike not of a particular minority but of minorities in general,"

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[5] Czech Republic, France, Germany, Greece, Hungary, Ireland, Serbia and UK.

The first groundbreaking experimental study was conducted in Italy where respondents were asked about the social problems either Eastern European or African immigrants caused in the country. Whether respondents had negative answers for either group, the predictive attitude was the same for both immigrant groups indicating individuals who have prejudice against one group are likely to have prejudice for other groups (Sniderman et al. 2000).

This method is applied in later studies to further estimate the difference in perceived cultural and economic threat to a country (Sniderman 2004, Sniderman & Hagendoorn 2007). In line with previous observational studies, cultural threats seem to play a bigger role compare to economic threats. A direct test of relative difference between cultural and economic threats were conducted by Sniderman (2004) where the result was in line with their hypothesis, concerns about national identity dominated those of economic interest. This further support the notion attitudes is a difficult subject for researchers. If economic interest would be the foundation forming individuals attitudes the FP model should be a reliable theory but if this is not true the significance of it should diminish and cultural characteristics should explain differences in attitudes better.

Media is another channel which may influence the attitudes to immigration. There have been attempts to identify differences in attitudes in the aftermath of 9/11 with differing results. Branton et al. (2011) used 2000 and 2004 ANES database to estimate any difference in attitudes to Latinos, arguing portrayals of immigrants in the media shifted after the attack. Valentino et al. (2013) extended this analyze with data between 1992-2008, arguing the Californian Proposition 187[6] in 1994 was the breaking point instead. Åslund & Rooth (2005) did a similar analyze on Swedish longitudinal data and found a shift in attitudes towards minority groups after 9/11, especially Muslims. However, there was no connection to the labor market outcome for this group giving rise to the question whether ethnic labor market discrimination comes from factors not altered by the event such as language skill and other personality attributes, rather than attitudes on immigration. Another explanation is employer act rational in the hiring process not responding to changes in attitude toward an immigrant group. 9/11 could, in contrast to our analyze of the refugee crisis, be treated as an exogenous chock which has been utilized by researcher. We will not use any specific methods for analyzing any difference before and after but rather mapping out attitudes to see if there is any visible

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[6] Ballot initiative in California prohibiting immigrants using non-emergency health-care, public education and other services in California. Also

changes. It could be expected attitudes would be worse after the refugee crisis just as it has been shown after 9/11 and the Californian Proposition 187 were portrayals of different ethnicities might have given rise to adverse attitudes.

Muslims has been shown to be an especially exposed group to a change in attitude after 9/11 (Allen & Nielsen 2002). In their report, visual identifiers for being Muslim or in any other way show association with Islam was correlated with a change in attitude and increase aggressive behavioral against this group. Here, women's hijab being the most obvious attire. Men who wore turban and big beards, not necessary together, was also a prime target for act of hatred although not as common even though it is not directly identifiable as Islamic. Images of Usama Bin Laden, the Taliban and the everyday Afghanistan was the catalyst for this and became an integral part of the growing hate. The Islamic mosque has also been targeted for many hate acts being easy to identify as being Islamic.

These visual identifiers do not explain why attitudes change and why individuals felt the need to engage in retaliatory actions in the response to 9/11. They are rather a tool for identification or signal of certain group, making it easier to blame someone for the "terrorist" acts even though Muslims is not to be blamed per se. For the refugee crisis in 2015 identification through attire might not be as obvious, but still the majority of the displaced individuals originating from either Afghanistan and Iraq and many other nationalities being Muslims.

As we can see the results are ambiguous. In the article by Esses et al. (2017), where their main argument for a solution to the refugee crisis should be a successful resettlement for refugee in the new host country, argue both media portrayals and the political debate on the subject can influence immigrants mental and physical health and individual's attitudes towards them. It is important for individuals to let immigrants and refugees feel welcomed for them to be able to settle in the new host country. Since any solution to the refugee crisis is not in the near future, pre-empt to reduce violence, persecution, environmental disasters and such is beyond the scope of our knowledge.

2.2.3 Psychological mechanism and the role of emotion

Esses et al. (2017) is doing an extensive review on the literature on what media and other psychological mechanism might have on attitudes on immigration, mainly refugees. To start off, it exits an extensive literature on how aimed media coverage can influence the opinions for immigrants and refugees. It has been shown perception of potential threats could be one important predictor of attitudes and prejudice. Potential

threats could include needing jobs, language training, settlement service, access to health care, potentially infectious diseases, different cultural- and religious identity and the potential to be a "terrorist", where Ipsos (2017) found statistic that over half of respondents actually though refugees were terrorists. The categories have broadly been categorized into four distinct types of intergroup threats to form prejudicial attitudes which are: *realistic threats*, *symbolic threats*, *negative stereotypes* and *intergroup anxiety*. As stated before, this will further be examined in the theory section.

This model has been applied to a variety of studies trying to identify any difference between these threats. Stephen et al. (2005) had participants in three different groups read fictitious news articles before expressing their attitudes showing more negative attitudes when presented with articles presenting different threats. Similarly, Schweitzer et al. (2005) found similar results in Australia where realistic threats seem to have stronger influences on prejudice toward refugees compare to the other three intergroup threats. In these studies, the effect is only measured temporary after they have been exposed and is not saying anything on what effect it might have long term. The short-term effect on negative attitudes is not explaining the general attitude individuals have but if natives is exposed to negative *realistic* or *symbolic threats* consistently, it might reshape attitudes in the long run. Our data can be affected by this short-term bias and has to be considered in the analysis.

Furthermore, Brader et al. (2008) did a similar experiment when he manipulated the tone of a news article read by respondents about Europeans and Latinos finding anxiety as a mechanism connecting concerns about immigration as a consequent when reading negative articles about Latinos. Gadarian & Albertson (2014) extended the literature on anxiety over immigrations when they tried to induce anxiety about immigration to respondents. They found anxious individuals seek and recall threatening information about immigrants at a disproportional level, as a form of confirmation bias, when being induced with anxiety. In the short-run, these studies examine how individuals react when exposed to different type anxiety and in other ways get exposed to information on immigrants. As discussed before attitudes do not change overnight but rather gradually and this might strengthening and reinforcing bad attitudes in the long-run when feeling fear and anxiety, recalling and seeking new information about this threating group of people.

To sum up, media affect individuals attitudes on immigration and refugee through many channels. If media coverage about immigrants is negative and portraying new

arrivals as threatening in some way this seem to correlate with negative attitudes, and this is often true for certain exposed minority groups such as Muslims in Europe and Latinos in the United States. As we will see, this might also influence the public opinion which is correlated with how media present news. If admittance of refugees became officially supported by the government and positively portrayed by the mass media, perceived threats might be reduced and host community members attitudes might become more supportive.

When looking at age there is no clear evidence about the effects on attitudes however there is indications that older individuals are prone to have worse attitudes. Same is for gender were there have not been any specific paper looking at either age or gender. However, there is an indication in many of the studies we have been looking that men and older individuals is opposing immigration. Conversely, younger individuals and women seem to have better attitudes in general. As previous studies have shown, minority groups seem to have worse labor market outcome compare to majority groups. Due to the high number of refugees this would most likely make the situation worse for the general outcome of minority groups. Would native then change their attitudes for the worse?

So far in this literature review we have identified two major perspectives attitudes might stem from, namely the economic or cultural. We have tried to look at these two perspectives separately with studies examining each category on its own but one have to be cautions when looking at the different effects they might have. If e.g. an immigrant possessing good host language skill is preferred in the labor market it is hard to distinguish whether this is for economic or cultural reasons. Is it their economic contribution they might bring or their decreased cultural threat? Conversely, are immigrants with low occupational status a concern for possible support they might need or is the cultural difference between domestic identity the central question? There is no clear distinction what economic and cultural effect immigration might have on the receiving country and one has to be conscious of this when analyzing and discussing the subject.

2.3 The European refugee crisis

The first part of this section is looking at the current crisis strictly from a numbers perspective describing the overall magnitude of it. The section finishes of with a slightly

more theoretical perspective looking at what effects migration might have on the receiving country.

2.3.1 The crisis of 2015

Dustmann et al. (2016) has done a comprehensive analyze of the current refugee crisis that has occurred in Europe. The analyze has its starting point from the institutional framework laid out by the Genève Convention for Refugees (formed in 1951) trying to develop a unified European refugee policy where still countries differ in both interpretation and implementation. This refugee crisis has its origin from the bombings in 2001 and the events that followed often referred to as the "Arab spring"[7].

In 1990, due to the dissolution of former Yugoslavia was the latest refugee crisis in the same magnitude of the one happening in 2015. During this crisis, a recorded 2,700,000 people was displaced by the end of 1995, over 700,000 whom sought asylum in the European Union members' state. This, compare to 1,5 million asylum applications in 2015 alone which is nearly double the peak in 1992 with 850,000 applications. A displaced individual generally has trouble getting all the documentation (e.g. passport, visa) to legally access host countries. These individuals are often subject to illegal crossings. Reports from different sources indicate refugees are twice the size of the actual reported number, which is one of the major characteristics of the current crisis. The number of displaced individuals is therefore also high compare to asylum application since a big number of individuals either get stuck in their country or in bordering countries because they are unable to move any further.

During this crisis, only a small fraction of the displaced population could reach a country with a formal system handling refugees. Out of the 2.7 million displaced individuals in Europe in 2015, only 25% had left their country to become a refugee abroad.

The European countries have not been equally affected by the refugee crisis. Between 2009 to 2015 a total of 3.6 million asylum applications was made where 3.2 was made in the Western European countries. Countries who received the most was Germany (915,000), France (396,000), Italy (265,000), Hungary (246,000) and Sweden (163,000). Per 10,000 inhabitants, Sweden (206 per 10,000) hosted the most asylum seekers in 2014 followed by Switzerland and Norway (just above 100 per 10,000) and

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[7] Also, called the Arab Revolution when demonstration started in Tunisia in 2010 and spread to countries like Libya, Egypt, Yemen, Syria and Bahrain starting the Syrian civil war, the Egyptien crisis, the Lybian civil war and the Yemen crisis.

Germany and France (around 50 per 10,000) (Dustmann et al. 2016). Table 2, where average attitude is presented is ranked with countries receiving most immigrants per 10,000 inhabitants.

2.3.2 Studies on the refugee crisis

How the refugee crisis is affecting the receiving country is unclear. In Aiyar et al. (2016) they reason the fiscal expansion in the short run will modestly increase GDP growth, however in the medium- and long run it will highly depend on how well they get integrated in the labor markets. Discrimination at this stage will certainly hinder the growth and most likely work in the opposite direction depending on individual's attitudes to immigrants and refugees. A country with negative attitudes to immigrants will both support extreme political parties (right wings) to further dismantle integration, but also it has been shown it can alter integrations in the sense of immigrants not feeling welcome. First, refugees suffering in higher degree (around 9%, 10 times higher rate than general population) from post-traumatic stress disorder (PTSD) and depression (Fazel et al. 2005). Second, if individuals showing bad attitudes to newly arrived immigrants they often have less incentive to integrate, feeling disconnected to the new country not wanting to adapt to new countries culture and values. In Esses et al. (2017) this is referred to as *meta-perception,* what do newcomer think about what other people think of them which is one of many factors that will affect what acculturation[8] strategy immigrants will use. Immigrants' perception (perceived acceptance from host community) on how well they will feel connected and integrate is therefore an important aspect to look at. Refugees' perception can be formed through different channels such as direct contact but also through observing interactions between other refugees and host community members and through a secondary source such as news media outlets.

As we have seen, attitudes on immigrants affect both individuals in host country but also new arrivals both ways. Then it could be argued, if immigrants where prepared and educated to what to expect when arriving to a new country this could decrease their stress and they can have reasonable expectations on their new settlement to further help with integration. At the same time this is also true for individuals already living in the host country, where education on what immigrations impact on different aspects of the society have, but also on how they should best act and treat immigrants to their country.

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[8] Process of adapting to aspects of a new culture.

Previous studies also support an increase in years of schooling correlates with higher levels of ethnic and racial tolerance. According to Gang et al. (2002), most Western school is design quiet explicitly to increase social tolerance.

Here, Kim (2015) have found that 'everyday discrimination' and lack of host language skill is significantly associated with mental health amongst immigrants. Therefore, one important step to help immigrants is to help them acquire host language skill. In some instances, refugee is provided with short courses intended to orient them to the new host community since refugee to have the right expectation on what to they will encounter in the new country could be crucial for acculturation. This should include carefully designed modules to explicitly address the refugees concerns about social acceptance and acculturation to help deal with their expectations (see Amiot et al. 2007, Brown & Zagefka (2011)). Knowing for example on how long it is expected for them to be outside the labor market and participate in various aspects of host society could ease integration.

The difference between an immigrant's integration compare to refugees could be argued to differ quite substantially. An immigrant often having economic motives where foremost it is self-chosen, refugees often do not have a choice. The incentive could therefore be quite different between these two groups where refugee not having any alternative but to integrate.

Individuals' attitudes are important to investigate since they will affect the society through many different channels. First, they will influence what media and political parties will focus their energy on, opinion surveys are their hard proof on what is important in the public eye and therefore where they will put their energy. Second, as we have seen, the perception on attitudes for immigrants might have an important effect on their acculturation strategy. If an immigrant feels he/she belong and is connected to the host country and community the incentive to further integrate is stronger. Having a negative first- or second-hand experiences might have a big influence on what acculturation strategy would be applied.

Political symbols act to further empower individual's beliefs, media coverage and how immigrants are depicted. All these will affect attitudes and mental health for immigrants and how well they will integrate and resettle to their new host country. Attitudes amongst natives and other individuals are in some way or form an indication to what direction it is going. Are the political leaders leaning in the direction for helping or hinder new immigrants? How is the media portraying new arrived immigrants and

refugees? What is the economic and cultural impact in host country? How is the public opinion on immigrants and is immigration an important question for political leaders? These are important questions connected to what attitudes average citizen is holding.

3. Theory

3.1 The factor-proportions analysis model

Here we present a standard model[9] for the labor market impact of immigration. In previous studies that have used this framework some have called it the FP model. This simple model describes a national labor market with labor demand and labor supply, with a single aggregate output sector. In equilibrium, we find the employment level and wage of the economy.

3.1.1 The short-run when immigrants and natives are perfect substitutes

In this first version of the FP model the assumption is that natives and immigrants have the same skills and compete for the same jobs, they are perfect substitutes. Another assumption is that we observe the impact of immigration on the labor market in the short-run, this means that the capital is held fixed. This is illustrated in Figure 1. Immigration increases the supply of workers on the labor market, causing the supply curve to shift out, which reduces the wages (from w_0 to w_1) and increases the total employment (from N_0 to E_1). However, at this lower wage level fewer native workers are willing to work, the employment for the natives goes down (from N_0 to N_1). This model predicts that immigration will lower wages and employment for natives, if the demand curve is downward sloping.

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[9] Described in more detail in Borjas (2013) chapter 4.
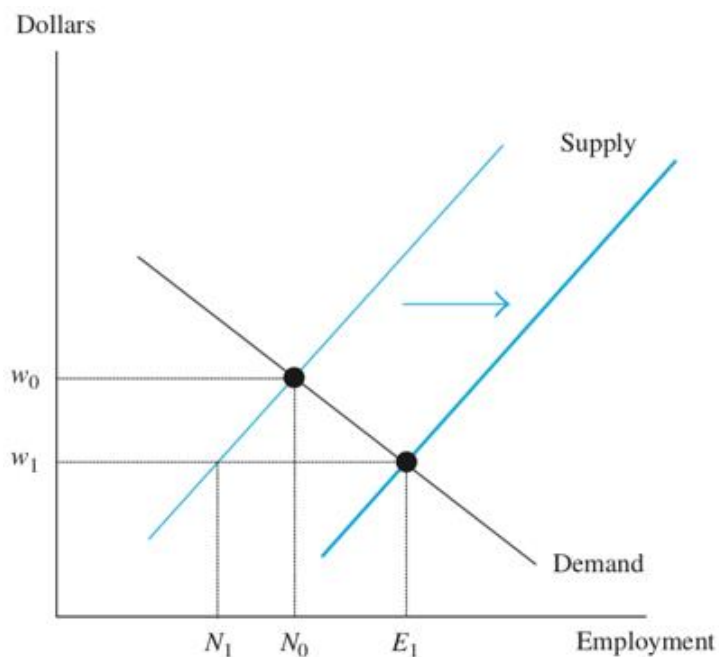
Figure 1. *Impact of immigration in the short-run when immigrants and natives are perfect substitutes*

3.1.2 The short-run when immigrants and natives are complements

The assumption that natives and immigrants are perfect substitutes can be questioned. In the next version of the FP model the assumption is that natives and immigrants are complements in production. In this case, native workers and immigrants no longer compete for the same jobs, and instead complement each other on the labor market. Perhaps immigrants are lower skilled and preferable in labor-intensive production compared to natives who are higher skilled and better at more capital-intensive production. Immigration will in this case increase the native worker's marginal product because they now can make more use of their human capital. Again, the assumption about the short-run is applied.

The supply and demand curves for the native workers are illustrated in figure 2. Immigration will increase the demand for the native workers, which causes the demand curve to shift out. The native wage increases (from w_0 to w_1) and at this higher wage more natives find it worthwhile to enter the labor market, native employment increases (from N_0 to N_1). This model predicts that natives' employment and wages increase. However, if it exists low skilled native workers they are considered to be perfect substitutes to immigrant workers, the employment and wages of these individuals will go down.
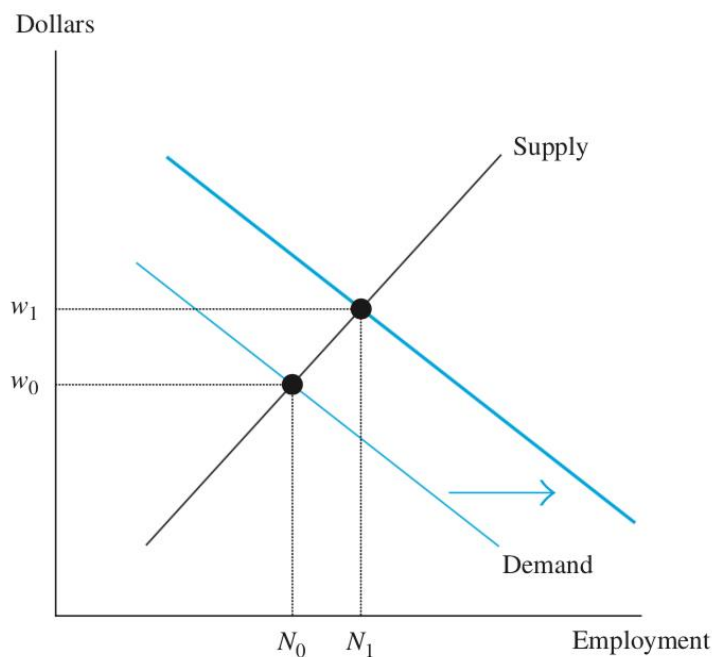
Figure 2. *Impact of immigration in the short-run when immigrants and natives are complements*

3.1.2 The long-run

To only observe relationships in the short-run is often not enough in economic theory, often it´s necessary to consider the long-run as well. Here therefore the assumption that the capital should be held fixed is relaxed and instead the model looks at the long-run effects. Only the assumption that immigrants and natives are perfect substitutes is considered in the long-run, just as in Borjas (2013), since in the long-run it is usually not considered that immigrants and natives can be perfect complements.

When there are more individuals in the economy more goods and services should be produced, in turn, more production requires more labor and will thus increase the demand of labor. This will lower the wage (from w_0 to w_1) and the returns to labor in the short-run, however it will increase the returns to capital. Over time this means that capital investment will increase, companies expand, and new companies enter, to utilize the low wage. This will increase the capital stock, causing the demand curve for labor to shift to the right. If we were to assume constant returns to scale in production the wage would go back to its original state (w_0) and remove the initial reduction of the wage, and as we can see the number of employed native workers (N_0) is the same as before the immigration took place. This model predicts that the economy will grow, because now also the immigrants work, and that in the long-run native's employment rate and wages are unaffected.
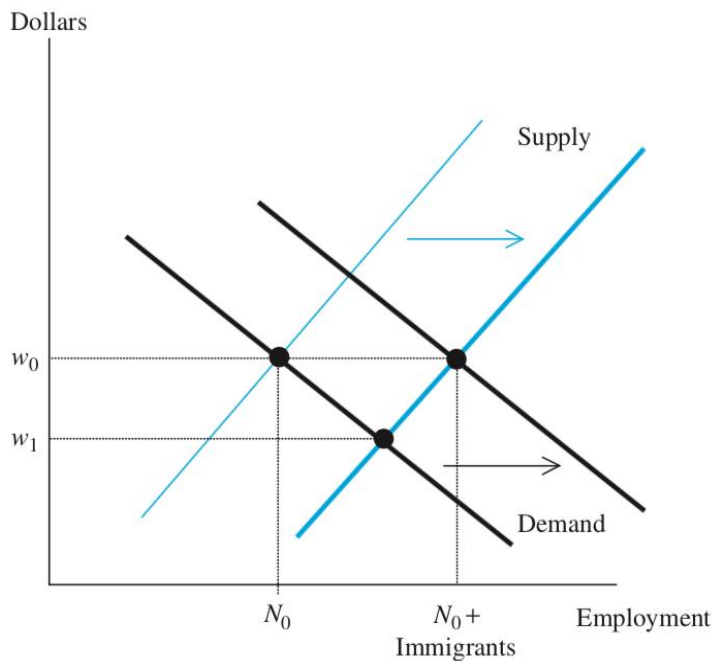
Figure 3. *Impact of immigration in the long-run when immigrants and natives are perfect substitutes*

3.2 The Balassa-Samuelson model

The Balassa-Samuelson model is helpful in explaining long run trend deviations from purchasing power parity (PPP) and a wide variety of related economic phenomena. It is an extension of the labor market competition model and it provides an important framework for also understanding the relationship between exchange rate and inter country real income comparison. In this model, it exits only two goods, tradable and nontradable and one factor of production, labor. Nontradable goods can be assumed to be mainly services such a barbershop, housing rental markets and other social and personal services. The main attribute of nontradable goods is it cannot be exported or imported. A further explanation on the difference is done by Sachs and Larrain (2001). Furthermore, it is assumed productivity as measured as marginal productivity of labor is the same for both countries in the nontradable sector. In each country, wages tend to be equalized across sectors when supply in the labor market is expected to shift towards better-paid jobs and thus will exert pressure towards wages to equalize. Also through union pressure, keeping focus on fairness and solidarity on the labor market limiting large differences between sectors. By the law of one price (PPP) for tradable goods, price is the same in both countries. Productivity for the nontradable good is assumed to be equal in both countries. Increased productivity in tradable goods will increase real

wages and as a result lead to an increase in relative price for nontradable. Thus, lung-run productivity differentials would lead to trend deviations in PPP.

This is an extension of the simple FP model where exchange rate and two different goods (compare to one single output sector as in FP) are included. This can further explain income differences and incentives to why individuals want to migrate to different regions. With the same price for tradable goods, price for nontradable will be higher in the more productive country or region resulting in overall higher prices. In other words, where income is high general price level is also high. Productivity differentials determine the relative price for nontradable goods. This in turn indicate that in high productivity regions, general wage tend to be higher. Low productivity workers could be argued to gain most in these regions since their increase in wage more or less comes from piggybacking on high productivity workers.

In the Balassa-Samuelson model it is assumed there is no migration, however we could try to make prediction on what could happen when migration is allowed when assuming two factor goods for low and high productivity workers. First, for immigrants new in host country they are assumed to be low productivity since they often lack most of the relevant host-specific skills such as language skill, and other branch specific skills. This is necessarily not true over time since immigrants can improve their human capital through education and assimilation to host country. In this model, immigrants would ideally migrate to a highly productive regions where they could get a higher income. For natives, neither high and low skilled would prefer low skilled immigrants since this will hinder total output on the labor market hindering further increase in productivity and wage. In this model both high and low productivity workers, from an political economic perspective, would not gain anything from an increase in migration and should therefore oppose it.

On one extreme end of the spectrum, a big influx of migration could however change the set of tradable goods produced in the local economy thus causing a decline in real wages of low-skilled labor. This due to a change in factor supplies by importing less of the goods that could now be produced locally. This is however not to applicable in most European nations since most countries is not big enough to have an effect on world prices. Alternatively, if the economy is very large and having an effect on world prices a change in output mix can change world prices of low-skilled-intensive goods leading to a decline in low-skilled labor. This result seem however not applicable for most of the individual European countries either.

All in all, the picture is not getting any clearer including more assumptions in the model and it is extremely difficult to make any firm predictions on the equilibrium effects from immigration on wages and employment opportunities for local workers. As has been suggested by recent empirical evidence, and the conclusion we can draw from looking at it from a theoretical point of view were the economic impact seem to be quite small.

3.3 Integrated threat theory of prejudice

As mentioned in the literature review, prejudice originate from four main threats as formulated by Stephan et al. (1997) when he did an extensive review on the literature about attitudes to immigrants. These threats can lead to individuals being prejudiced to one another. It is divided to *realistic threats*, *symbolic threats*, *intergroup anxiety*, and *negative stereotypes*.

Realistic threats have its origin in realistic group conflict theory (LeVine & Campbell 1972, Quillian 1995). Realistic threats often arise when there is competition for scarce resources such as land, jobs and power. It can also originate from threats to the economic and political power of the in-group as discussed in the literature review. It could also stem from threats to the physical and material well-being from the out-group. This type of threat is more associated to the FP model and the economic impact immigrants might have to host country. When looking at *symbolic threats,* it could be argued this is more connected to the cultural aspect of difference in attitudes were the sociotropic differences play a bigger role.

When looking at *symbolic threats* group differences in moral, norms, values, standards, beliefs and attitudes is of importance. When the in-group experience their system of values is being undermined it is referred to as *symbolic threat*. This is based on the social dominance theory (Sidanius 1994, Sidanius, Devereux and Pratto 1992), social identity theory (Branscombe and Wann 1994) and ambivalence-amplification theory (Katz, Wackenhut and Glass 1986). These threats arise mainly through a belief in the moral rightness of the in-group which can create prejudice.

Intergroup anxiety concerns interaction with out-group individuals when they think a negative outcome will occur such as disproval, rejection and embarrassment. This seems to be particularly true when groups interact in a relatively unstructured and competitive environment. Also, when the in-group is in minority or is of lower status then the out-group.

Stereotypes are not often directly connected to threats although they serve as a basis for expectation of an individual's behavior. If stereotypes of a certain group of individuals are negative, it is often related to belief of them being lazy or aggressive, pugnacious and discrepant. Negative expectations about out-group can therefore lead to negative and unpleasant interaction.

When conducting research on threats in the context of immigration and refugees, a variety of theoretical approaches has been applied. This framework is laid out by Stephen in an attempt to simplify a very complex and illusive subject. This theoretical framework makes it more comprehensible but still prejudice can stem from other sources. In Stephan et al. (1998) they show these four variables is significant predictors of attitudes towards immigrants. In our thesis, looking from the political economic perspective which is connected to our FP model it could be argued this is more related to *realistic threats* where material self-interest is at its core and threats for job, property, transfers and taxes is important. The sociopsychological perspective is more related to *symbolic threats* where differences in norms, beliefs and morals is at its core. In table 7, this is tested for when we include variables connected to individuals cultural differences to see whether these variables change our results. Both *intergroup anxiety* and *stereotypes* is somewhat connected to both the economic and cultural perspective and no clear distinction could be made.

4. Description of the data, variables and methodological framework

We draw our data from all the eight rounds of the ESS[10]. This cross-national survey has been conducted every two years since its establishment in 2001 and it's an academically driven survey. The survey measures a wide range of different aspects of individuals' characteristics for instance behavior patterns, beliefs and attitudes. Since its inception, ESS has been surveyed in more than thirty nations and the amount of countries evaluated each round varies. In our analysis, we only include those countries that has participated in all the eight rounds, which are the following: Norway, Sweden, Germany, Belgium, Switzerland, Finland, France, Great Britain, Ireland, Holland, Poland and Slovenia. For each nation, a stratified random sample is made as to be a

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[10] A more detailed description of the survey can be found at http://www.europeansocialsurvey.org. Retrieved 1 February 2018.

representative of the residential population, all persons aged fifteen years and above regardless of their nationality, citizenship, language or legal status. In total, over the eight rounds, our amended dataset consists of answers of over 180,000 respondents.

Our main empirical analysis involves answers to a question, which takes the following form[11]:

To what extent do you think [respondent´s country] should allow people from poorer countries outside Europe to come and live here?

- Allow many to come and live here
- Allow some
- Allow few
- Allow none
- Don´t know

We create a dichotomous variable that equals 0 (anti-immigration) if the answer was "allow few" or "allow none" and 1 (pro-migration) if the answer was "allow many" or "allow some". When looking at the result, an average close to 1 indicate generally more positive attitudes were a lower number means worse attitudes. To use a dichotomous variable is both simpler and more intuitive according to Hainmueller & Hiscox (2007). However, a more complex treatment will be performed, using the original categories and ordered probit models, as a robustness test. Just as in Hainmueller and Hiscox (2007) we exclude "don't know" and missing answers from our sample. When including these answers our substantive results did not change.

In Table 1 below we present a summary of how the respondents have answered to this question about attitudes towards immigration from poorer countries outside of Europe in all the eight rounds. One of our objectives in this thesis is to observe if the refugee crisis in 2015 has had an impact on the attitudes towards immigration. Therefore, an interesting thing to note is that the mean of the dichotomous dependent variable has increased in 2016 compared to 2014 and it is also the highest of all the years. This suggests that the overall attitudes towards immigration have improved on average. In the forthcoming result and analysis chapter we will analyze this in more detail and observe how the attitudes towards immigration may differ between different subgroups of respondents.

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[11] In the analysis chapter four similar questions are used to test the labor market competition model. These are presented in more detail in the appendix.

The distribution of the answers in Table 1 could change while the mean of our dependent variable stayed the same, meaning that the attitudes are getting more polarized. We can see that the attitudes get slightly more polarized between 2002 and 2016. The proportion who felt that none of the migrants should be allowed to come increased from 8 % to 9 %. At the same time, there was an increase in the proportion who felt that many such migrants should be allowed entry (from 11% to 16%). In other words, the attitudes are becoming somewhat more divided. However, we can see that across time, attitudes towards immigration are quite stable and are in fact becoming slightly more favorable.

Table 2 also reports the attitudes towards immigration but now by country of the respondent and only the mean of the dichotomous dependent variable is presented. The countries are ranked according to how many refugee applications each country received during 2009 and 2015 per 10,000 inhabitants, similar calculations have been performed in Dustmann et al. (2016). As we can see, Sweden received the highest number of applications during this period and seems to be the country that is the most pro-immigrant, since the mean of the dichotomous dependent variable for Sweden is highest in all of the years. This calculation has also been done on total immigrants, instead of refugees, per 10,000 inhabitants and got similar results.

Of course, many different factors are accountable in forming these attitudes. We estimate different probit models[12] for our dichotomous dependent variable, which will be presented in the next chapter. To interpret the estimated probit coefficients is not always easy, we will therefore present the marginal effects to clarify interpretation. These effects are simply, holding all other coefficients at their sample means, the change in the estimated probability of favoring immigration associated with a unit increase in the value of the relevant coefficient. Just as in Hainmueller and Hiscox (2007), who performs similar calculations, we want to elucidate that we only aim to investigate if the factors observed are strongly associated with immigration attitudes. Hence, to obtain and analyze causal effects is beyond the scope of this thesis.

In our different models, we include some standard demographic and socioeconomic control variables. (For a complete overview of all variables that we will go through

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[12] Following the official ESS recommendation, we applied the design weight (DWEIGHT) to all estimations. See the ESS guidelines "Weighting European Social Survey Data" at:
<http://www.europeansocialsurvey.org/methodology/ess_methodology/data_processing _archiving/weighting.html> Accessed 21 February 2018.

here, see Table 9 and a further description in Table 10 in the appendix). The variable *years of schooling* displays the number of years of full-time education completed, *age* (in years)[13], *gender* (0 = male, 1 = female), *native* (0 = foreign born, 1 = born in country), *income* (measured on a scale from 1 to 10)[14] and *unemployed*, what respondents did the past seven days (0 = paid work, education, permanently sick or disabled, retired, community or military service, or household, 1 = unemployed and looking for job or unemployed and not looking for job). In addition to these standard variables we also include *partisan right* which describes the respondent's placement on a left/right political scale (0 = far left, 10 = far right), *culture* show the respondents answer on how the country's cultural life either is undermined or enriched by immigrants (0 = undermined, 10 = enriched), *economy* answers if immigration is good or bad for the economy (0 = bad, 10 = good), *religious* (0 = not at all religious, 10 = very religious), *better place* (0 = immigrants make country worse place to live, 10 = better place to live), *not discriminated* (member of a group discriminated against 1 = yes, 2 = no) and *minority* (1 = almost nobody minority race/ethnic group in current living area, 2 = some, 3 = many).

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[13] Following Hainmuller and Hiscox 2007, we also tried to include age squared in our models. Just as Hainmuller and Hiscox, we found an indication that this age effect was weakly U-shaped. But we chose to exclude it from our models because the effect was small and did not change our results when it was added to our models.

[14] This is household's total net income, all sources, divided into income deciles.

Table 1. *Mean immigration attitudes.*

Poorer countries outside Europe	Allow none	Allow a few	Allow some	Allow many	Total	Dichotomous variable	
						Mean	Standard deviation
2002	1,947	7,883	11,276	2,582	23,688	0.587	0.003
	8.22%	33.28%	47.60%	10.90%			
2004	2,839	7,570	9,805	2,809	23,023	0.552	0.003
	12.33%	32.88%	42.59%	12.20%			
2006	2,794	7,729	9,381	2,978	22,882	0.544	0.003
	12.21%	33.78%	41.00%	13.01%			
2008	2,334	7,092	9,885	3,054	22,365	0.586	0.003
	10.44%	31.71%	44.20%	13.66%			
2010	2,907	7,291	9,388	2,747	22,333	0.548	0.003
	13.02%	32.65%	42.04%	12.30%			
2012	2,708	7,339	10,122	3,281	23,450	0.579	0.003
	11.55%	31.30%	43.16%	13.99%			
2014	3,097	7,237	9,024	3,163	22,521	0.547	0.003
	13.75%	32.13%	40.07%	14.04%			
2016	2,030	6,453	10,143	3,587	22,213	0.623	0.003
	9.14%	29.05%	45.66%	16.15%			
All years	20,656	58,594	79,024	24,201	182,475	0.571	0.001
	11.32%	32.11%	43.31%	13.26%			

Notes: A summary of how the respondents have answered to this question: To what extent do you think [respondent´s country] should allow people from poorer countries outside Europe to come and live here?

Table 2. *Immigration mean-attitudes by country between 2002-2016.*

VARIABLES	(1) 2002	(2) 2004	(3) 2006	(4) 2008	(5) 2010	(6) 2012	(7) 2014	(8) 2016	(9) Refugee/ 10,000[1]
Sweden	0.846	0.809	0.846	0.871	0.873	0.840	0.874	0.869	461
Observations	1,905	1,875	1,859	1,800	1,472	1,822	1,751	1,507	
Germany	0.577	0.453	0.445	0.596	0.571	0.671	0.640	0.667	213
Observations	2,848	2,792	2,850	2,696	2,927	2,925	3,004	2,813	
Norway	0.618	0.590	0.598	0.627	0.623	0.671	0.680	0.755	200
Observations	2,019	1,753	1,743	1,543	1,540	1,610	1,422	1,532	
Switzerland	0.694	0.638	0.590	0.595	0.567	0.591	0.524	0.627	203
Observations	1,950	2,094	1,761	1,762	1,462	1,458	1,759	1,478	
Belgium	0.563	0.500	0.553	0.588	0.533	0.559	0.524	0.656	175
Observations	1,846	1,755	1,791	1,745	1,691	1,865	1,759	1,760	
Finland	0.399	0.344	0.341	0.375	0.285	0.373	0.352	0.455	107
Observations	1,938	1,994	1,865	2,168	1,848	2,163	2,054	1,886	
Netherlands	0.561	0.523	0.458	0.568	0.539	0.545	0.536	0.626	96
Observations	2,317	1,850	1,862	1,751	1,783	1,816	1,899	1,658	
France	0.488	0.464	0.457	0.497	0.469	0.532	0.516	0.616	76
Observations	1,454	1,765	1,956	2,019	1,700	1,944	1,890	2,035	
Great Britain	0.483	0.497	0.440	0.471	0.426	0.404	0.418	0.601	39
Observations	2,020	1,866	2,361	2,310	2,350	2,227	2,225	1,920	
Ireland	0.636	0.634	0.648	0.580	0.508	0.507	0.411	0.577	31
Observations	1,969	2,220	1,759	1,759	2,527	2,584	2,320	2,718	
Poland	0.576	0.635	0.711	0.730	0.709	0.684	0.524	0.467	22
Observations	1,973	1,667	1,672	1,570	1,688	1,835	1,543	1,632	
Slovenia	0.565	0.517	0.499	0.531	0.537	0.522	0.522	0.530	16
Observations	1,449	1,392	1,403	1,242	1,345	1,201	1,156	1,274	

Notes: Mean attitudes, mean value of the dichotomous dependent variable, is presented for all years and countries of our sample. Countries are ranked by who received most refugee per 10,000 inhabitants. Graph 4 in appendix give a visual presentation of mean attitudes for all years and countries.
Note 1: Calculated on cumulative refugees between 2009-2016 and total inhabitants in 2016.

5. Result and analysis

5.1 Attitudes towards immigration in subgroups

In Table 3 the mean of the dichotomous variable is calculated in different subgroups, to further analyse the development of attitudes over the years and study if the refugee crisis in 2015 has had an impact on the attitudes. The three main categories are what political party an individual support, if they are native or not and two different age groups, young or old. These regressions are only made on the specific subgroup, i.e. on age over 60, individuals over 60 is the only one included in the regression and therefore show average attitudes on individuals over 60. In the first row, results from the whole sample are presented both aggregated for the whole sample and for each year individually. First column shows mean attitudes for the whole sample. Each column represents one year to see if there has been any change over time.

Over the whole sample people over 60 years old show the worst attitude. Non-native shows the best attitude against immigrants, which is also the subgroup with the least observations, which might not give as accurate value as the other. Partisan right and people over 60 are quite similar in attitudes over time when both show worse attitude then average. In 2002, people aged over 60 had worse attitudes; this is however reversed in 2016 where right party voter has worse attitudes. Native also show slightly worse attitudes compare to the whole sample. All other subgroups show better attitudes compare to the whole sample and are quite similar in trends.

One interesting observation of this table is how observations for older people increases and observations for younger people decrease. This supports the notion of demographic changes with an increase of older people represented in the sample.

The subgroup showing best attitudes towards immigration is partisan left. Between 2002-2010 partisan left, non-native and younger show similar attitudes but after 2012 partisan left increase their attitudes for the better compare to non-native and younger individuals.

The overall results in Table 3 shows that there are some differences in attitudes between the subgroups, as discussed above, but that the development of the attitudes is quite sticky and do not fluctuate much and do not follow a certain positive or negative trend. All of the measures increase in value between 2014 and 2016, which gives the notion that the refugee crisis in 2015 has not made the attitudes towards immigration worse, even when the sample is divided into certain subgroups.

Table 3. *Average mean attitudes in different subgroups.*

VARIABLES	(1) All years	(2) 2002	(3) 2004	(4) 2006	(5) 2008	(6) 2010	(7) 2012	(8) 2014	(9) 2016
Whole sample	0.571	0.587	0.552	0.544	0.586	0.548	0.579	0.547	0.625
Observations	182,475	23,688	23,023	22,882	22,365	22,333	23,450	22,521	22,213
Partisan right	0.510	0.530	0.498	0.501	0.525	0.497	0.521	0.471	0.537
Observations	73,932	9,388	9,078	9,319	8,897	9,210	9,738	9,151	9,151
Partisan left	0.681	0.688	0.647	0.638	0.693	0.649	0.696	0.680	0.752
Observations	52,647	6,972	6,581	6,667	6,638	6,212	6,435	6,626	6,516
Native	0.562	0.579	0.543	0.537	0.577	0.538	0.569	0.540	0.615
Observations	164,783	21,851	21,196	20,841	20,192	20,057	20,938	20,034	19,674
Not native	0.653	0.692	0.659	0.615	0.675	0.627	0.656	0.603	0.700
Observations	17,596	1,819	1,812	2,028	2,164	2,248	2,510	2,481	2,534
Age<30	0.653	0.659	0.646	0.632	0.656	0.649	0.663	0.605	0.719
Observations	35,741	4,902	4,718	4,518	4,401	4,560	4,480	4,161	4,001
Age>60	0.466	0.473	0.438	0.417	0.465	0.430	0.485	0.455	0.553
Observations	50,740	5,590	5,824	6,082	6,029	6,219	6,945	7,034	7,017

Mean attitudes in different subgroups is presented. Column 1 aggregate results is presented, column 2-9 result for all years of our sample is presented. Figure 5 & 6 in appendix show a visual presentation for easier comparison. Result is presented in three main categories, first political orientation, second whether respondent is native or not and third comparison on young and old respondents. Standard errors in parentheses*** p<0.01, ** p<0.05, * p<0.1

5.2 The benchmark model

In addition to the investigation above of potential changes in attitudes due to the refugee crisis in 2015, another objective in this thesis is to analyse how different factors are associated with individuals' attitudes towards immigration. We will therefore try to examine which individual characteristics actually are the most likely to be present when favoring or opposing immigration.

In Table 4 we present a simple model where the dependent variable is the dichotomous dependent variable discussed above (favor immigration from poorer countries outside of Europe). The probit model for binary data is the most widely used nonlinear model, and the specification of our model is the following:

$$\Pr(y = 1|x) = F(x\beta)$$

Where $\Pr(y = 1|x)$ is the change in probability of favoring immigration. Only marginal effects are presented, and interpretation of our results are i.e., when looking at *years of schooling* for all years, one more *year of schooling* indicate a 2,2% increase in having better attitudes toward immigration. For negative coefficients it is instead associated with a decrease in probability of having better attitudes. $F(x\beta)$ is a set of explanatory variables argued to influence an individual's attitudes against immigrants. When specified, year and country dummies is also included for fixed effects. The control variables included are some standard demographic and socioeconomic variables, described in the previous chapter, and this model can be perceived as our benchmark model. These variables have been used in previous studies, but we can´t rule out that we may have omitted variables in this model. As we can see the estimated marginal effects of many of the control variables get statistical significant results at the 1% level. In column 1 the marginal effects from all of the eight years combined are presented, and in column 2-9 the effects for each year are presented separately. All of the estimations include a full set of country dummies, and the estimates in the first column also include year dummies, but these are not presented in the table.

The estimated effects of years of schooling are always statistically significant and positive. This means that having more years of schooling will increase the predicted probability of favoring immigration from poorer countries outside of Europe, when all other coefficients are held at their sample means. The age of the respondent has on the other hand a negative relationship to favoring immigration, suggesting that older respondents tend to have worse attitudes towards immigration. The variable gender gets overall statistical significant results and all significant estimates are positive, meaning

that men are more likely to oppose immigration than women. The native respondents, being born in the specific country, are also more likely to oppose immigration. This is also the case for the respondents who is placed more to the right on a left right political scale, as can be seen on the negative marginal effects of the control variable partisan right. Having higher income is affiliated with support for immigration. The last control variable is unemployed and as we can see the statistical significant estimates are negative, which indicates that unemployed respondents has worse attitudes towards immigration. However, this relationship may not be very robust since some of the estimates are not statistically significant.

Table 4. *Support for immigration: Benchmark results from full sample.*

VARIABLES	(1) All years	(2) 2002	(3) 2004	(4) 2006	(5) 2008	(6) 2010	(7) 2012	(8) 2014	(9) 2016
Years of schooling	0.0215***	0.0271***	0.0236***	0.0210***	0.0212***	0.0226***	0.0178***	0.0227***	0.0209***
	(0.000437)	(0.00135)	(0.00131)	(0.00124)	(0.00121)	(0.00128)	(0.00113)	(0.00128)	(0.00121)
Age	-0.00242***	-0.00230***	-0.00235***	-0.00290***	-0.00228***	-0.00309***	-0.00249***	-0.00186***	-0.00192***
	(8.55e-05)	(0.000262)	(0.000254)	(0.000250)	(0.000239)	(0.000253)	(0.000231)	(0.000241)	(0.000221)
Gender	0.0200***	0.0384***	0.0217***	0.0131	0.0155*	0.0152*	0.0200**	0.0161**	0.0246***
	(0.00287)	(0.00839)	(0.00824)	(0.00824)	(0.00801)	(0.00846)	(0.00786)	(0.00818)	(0.00773)
Native	-0.0487***	-0.0552***	-0.0682***	-0.0409***	-0.0759***	-0.0466***	-0.0570***	-0.0135	-0.0370***
	(0.00525)	(0.0174)	(0.0166)	(0.0156)	(0.0148)	(0.0151)	(0.0137)	(0.0139)	(0.0133)
Partisan right	-0.0351***	-0.0283***	-0.0352***	-0.0328***	-0.0364***	-0.0359***	-0.0323***	-0.0405***	-0.0418***
	(0.000713)	(0.00210)	(0.00207)	(0.00204)	(0.00201)	(0.00216)	(0.00191)	(0.00202)	(0.00189)
Income	0.0105***	0.00941***	0.0106***	0.00781***	0.0113***	0.00778***	0.0130***	0.0135***	0.00933***
	(0.000607)	(0.00229)	(0.00219)	(0.00220)	(0.00165)	(0.00173)	(0.00159)	(0.00162)	(0.00158)
Unemployed	-0.0344***	-0.0559***	-0.0245	-0.0640***	-0.00517	-0.0284	-0.0440**	0.0149	-0.0227
	(0.00692)	(0.0204)	(0.0192)	(0.0209)	(0.0216)	(0.0192)	(0.0178)	(0.0196)	(0.0191)
Observations	141,547	15,931	17,543	17,675	18,267	17,036	18,658	18,389	18,048
Country FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	NO	NO	NO	NO	NO	NO	NO	NO

Notes: Probit estimations: The coefficients are estimated marginal effects, that is, holding all other coefficients at their sample means, the change in the estimated probability of favoring immigration (Pr y =1) associated with a unit increase in the value of the relevant coefficient. The dependent variable is the dichotomous variable: To what extent do you think [respondent´s country] should allow people from poorer countries outside Europe to come and live here. Standard errors in parentheses*** p<0.01, ** p<0.05, * p<0.1. The country and year dummies included in the estimations is not shown here. Cases weighted by DWEIGHT.

5.3 The benchmark model on country-level

To even further analyze how different factors are associated with individuals' attitudes towards immigration we will in this section perform the same estimations as in table 4, but now on each of the twelve ESS countries separately. These estimations are showcased in Table 5.

Similar to the estimations in Table 4 the variable years of schooling gets positive and statistically significant results in all of the countries. Age also gets equivalent estimates, with the exception of Holland that does not get significant results. The variable gender gets mixed results among the countries, both positive and negative significant results and also some that is not significant at all. These mixed results give an indication that gender differences in attitudes maybe are quite small. Another variable that get mixed results is native, some of the estimates is not significant and most of the significant results are negative. However, the estimate for Sweden is statistically significant and positive. Both the variables partisan right and income get estimates of the expected signs with respect to Table 4 and most of the estimates are significant, except the income estimate for Finland. And the last variable in the model unemployed seems not to be very robust, just as discussed in previous section. Many of the estimates are not significant, but the majority of the significant estimates are negative.

As a deeper analysis and robustness check the benchmark model has also been conducted for each of the twelve ESS countries for each year separately, but for brevity those estimations are not presented here[15].

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[15] This will be further discussed in the Robustness tests section. Full results from all the estimations are available from the authors.

Table 5. *Benchmark model on country-level*

VARIABLES	(1) Sweden	(2) Germany	(3) Norway	(4) Switzerland	(5) Belgium	(6) Finland	(7) Holland	(8) France	(9) Great Britain	(10) Ireland	(11) Poland	(12) Slovenia
Years of schooling	0.0135***	0.0233***	0.0192***	0.0248***	0.0191***	0.0220***	0.0169***	0.0256***	0.0234***	0.0182***	0.0177***	0.0246***
	(0.000982)	(0.00131)	(0.00125)	(0.00172)	(0.00142)	(0.00118)	(0.00140)	(0.00163)	(0.00167)	(0.00188)	(0.00180)	(0.00207)
Age	-0.000954***	-0.00155***	-0.00265***	-0.00199***	-0.00267***	-0.00368***	9.27e-05	-0.00282***	-0.00277***	-0.00121***	-0.00393***	-0.00453***
	(0.000176)	(0.000230)	(0.000258)	(0.000308)	(0.000278)	(0.000254)	(0.000313)	(0.000338)	(0.000320)	(0.000363)	(0.000311)	(0.000386)
Gender	0.0400***	0.0113	0.0441***	0.0137	-0.0163*	0.0867***	0.0109	-0.0138	-0.00204	-0.0247**	0.0109	0.0484***
	(0.00603)	(0.00794)	(0.00889)	(0.0105)	(0.00938)	(0.00838)	(0.0101)	(0.0110)	(0.0103)	(0.0113)	(0.0104)	(0.0128)
Native	0.0448***	0.0155	-0.0550***	-0.0190	-0.0578***	-0.0191	-0.0290	-0.0941***	-0.141***	-0.128***	-0.0232	-0.141***
	(0.00956)	(0.0144)	(0.0167)	(0.0132)	(0.0157)	(0.0239)	(0.0191)	(0.0203)	(0.0179)	(0.0173)	(0.0478)	(0.0241)
Partisan right	-0.0171***	-0.0425***	-0.0439***	-0.0668***	-0.0285***	-0.0303***	-0.0506***	-0.0508***	-0.0360***	-0.0141***	-0.00488**	-0.0175***
	(0.00136)	(0.00224)	(0.00218)	(0.00285)	(0.00238)	(0.00211)	(0.00259)	(0.00242)	(0.00285)	(0.00321)	(0.00220)	(0.00280)
Income	0.00680***	0.0154***	0.00808***	0.00880***	0.0158***	0.00104	0.00862***	0.0142***	0.0109***	0.0140***	0.00979***	0.0131***
	(0.00128)	(0.00169)	(0.00189)	(0.00238)	(0.00229)	(0.00183)	(0.00222)	(0.00231)	(0.00207)	(0.00269)	(0.00248)	(0.00322)
Unemployed	-0.0404***	-0.0561***	-0.0363	0.0112	-0.0210	-0.0738***	0.0251	-0.00973	0.0777***	-0.0477**	-0.0468**	-0.00311
	(0.0155)	(0.0178)	(0.0285)	(0.0394)	(0.0213)	(0.0194)	(0.0291)	(0.0239)	(0.0271)	(0.0206)	(0.0210)	(0.0296)
Observations	12,565	17,925	12,373	10,270	11,691	14,197	12,385	11,398	12,701	10,338	9,283	6,421
Country FE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Notes: Probit estimations: The coefficients are estimated marginal effects, that is, holding all other coefficients at their sample means, the change in the estimated probability of favoring immigration (Pr y =1) associated with a unit increase in the value of the relevant coefficient. The dependent variable is the dichotomous variable: To what extent do you think [respondent´s country] should allow people from poorer countries outside Europe to come and live here. Standard errors in parentheses*** p<0.01, ** p<0.05, * p<0.1. The country and year dummies included in the estimations is not shown here. Cases weighted by DWEIGHT.

Further estimates have also been done on different subgroups of countries not presented in the paper but available upon request. This has been done to spot any significant differences in country specific variations. As can be spotted in appendix figure 7, countries are divided into three groups depending on their GDP/capita with high, medium or low[16]. Actual GDP is also considered where a clear difference can be spotted in figure 8 dividing it to two groups, either high or low GDP[17]. It is also done on all the Nordic countries[18]. Approximately half of the countries were exposed to a refugee shock in 2015 and half of the countries did experience a gradual increase since 2007, these two groups of countries have also been tested for[19]. A difference between Sweden and Finland has also been tested for. Sweden and Finland are neighboring countries and could be argued to have had similar economic and cultural history but as we can see in figure 4 Sweden is displaying best attitudes were Finland proves to have the worse. A test for Poland has also been conducted; it was the only country showing worse attitudes between 2014-2016.

5.4 Labor market competition model

As we have seen in the literature chapter and further discussed in the theory chapter the labor market competition model, is a central starting point in the discussion about natives' attitudes towards immigration. In the literature chapter we saw that the results and conclusions are ambiguous about which factors drives and forms individual attitudes. If we use the premise of the FP model presented in the theory chapter, with the assumptions that we observe the short-run and that natives and immigrants are perfect substitutes. We will expect that an inflow of immigrants with the same set of skills, as the natives, will cause the wages and employment to fall and in turn making these natives take resistance towards such immigration. With this reasoning we can make the hypothesis that if this model is correct we will find that higher skilled natives, based on years of schooling, will have worse attitudes towards higher skilled

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[16] High: Norway and Switzerland are included. Medium: Ireland, Sweden, Netherlands, Finland, United Kingdom, Belgium, Germany and France. Low: Slovenia and Poland.
[17] High: Germany, United Kingdom and France is included. Low group: Netherlands, Switzerland, Sweden, Belgium, Poland, Norway, Finland, Ireland and Slovenia.
[18] Since we only have data on Sweden, Norway and Finland, excluded Nordic countries are Denmark and Island.
[19] Countries exposed to a refugee chock are: Holland, Belgium, Switzerland, Finland, Sweden, Norway and Germany. Countries who did experience a gradual increase of refugee are: Great Britain, France, Poland and Slovenia. For graphic illustration of asylum seekers between 2002-2016 look at appendix figure 9 & 10.

immigrants compared to the lesser skilled. The same will hold if observing lower skilled natives, they will have better attitudes towards higher skilled immigrants and worse against lower skilled.

In Table 6 we investigate the hypothesis about labor market competition. Data from the seventh round of ESS is used, which focused on immigration questions. Four different dichotomous dependent variables are used as a measure for support of immigration based on the skill levels of the immigrants; these are described in more detail in the appendix. In Hainmueller and Hiscox (2007) they argue and show that immigrants from poor non-European countries have lower educational levels compared to poor European countries on average. We can therefore make the assumption that respondents of the survey think that professionals from poor European countries are higher skilled compared to professionals from poor non-European countries and in the same way that unskilled from poor European countries are higher skilled compared to unskilled from poor non-European countries.

When evaluating the marginal effects obtained in Table 6 we can see that the effect of having more years of education is always positive and significant. However, if we compare the effects between the four dependent variables the findings actually don´t follow the arguments of the labor market competition model. According to our findings individuals with more years of schooling are more likely to favor immigration, irrespective of the skill-level of the immigrants. For example, we can see that we obtain the highest estimated effect for years of schooling for the dependent variable in the first category, this group of immigrants are considered to be the most skilled, which is a result contrary to the expectations of the labor market competition model.

Table 6. *Support for immigration based on skill-level of immigrants. Year 2014.*

VARIABLES	Professionals poor European	Unskilled poor European	Professionals poor non-European	Unskilled poor non-European
Years of schooling	0.0183***	0.0174***	0.0165***	0.0157***
	(0.00164)	(0.00186)	(0.00176)	(0.00174)
Age	0.000201	0.00139***	-0.00125***	-0.00122***
	(0.000333)	(0.000382)	(0.000350)	(0.000368)
Gender	-0.0355***	-0.0383***	-0.00929	-0.0189
	(0.0115)	(0.0129)	(0.0122)	(0.0125)
Native	-0.0265	-0.0639***	-0.0472**	-0.0425**
	(0.0192)	(0.0215)	(0.0212)	(0.0204)
Partisan right	-0.0147***	-0.0255***	-0.0163***	-0.0288***
	(0.00265)	(0.00294)	(0.00279)	(0.00291)
Income	0.0114***	0.00623**	0.0127***	0.00830***
	(0.00229)	(0.00256)	(0.00244)	(0.00244)
Unemployed	-0.0299	-0.0753**	-0.0702**	0.00344
	(0.0255)	(0.0310)	(0.0277)	(0.0293)
Minority	0.0405***	0.0306***	0.0329***	0.0343***
	(0.00893)	(0.00955)	(0.00915)	(0.00930)
Observations	7,104	6,959	6,936	7,010

Notes: Probit estimations: The coefficients are estimated marginal effects, that is, holding all other coefficients at their sample means, the change in the estimated probability of favoring immigration (Pr y =1) associated with a unit increase in the value of the relevant coefficient. Standard errors in parentheses *** $p<0.01$, ** $p<0.05$, * $p<0.1$. Cases weighted by DWEIGHT.

5.5 Believes and cultural values

So far in our analysis we have only taken into account the usual demographic and socioeconomic variables in our models. However, as we have discussed in our literature chapter, other factors may be associated with attitudes towards immigration. It has been argued that it is not only the economic self-interest that drives the attitudes towards immigration, but also individuals' cultural values and beliefs. We will therefore in this section include a set of "value variables" to our benchmark model and observe if they are associated with immigration attitudes and if they reduce the relationship between some of some of the other coefficients and pro-immigration attitudes.

Precisely as in previous models we include a full set of country and year dummies in each of the estimations and we observe all of the countries and years combined, as in table 4 column 1. In Table 7 we can see the results of our model when we include the value variables.

Table 7. *Including cultural factors in our model.*

VARIABLES	(1) Model 1	(2) Model 2	(3) Model 3	(4) Model 4	(5) Model 5	(6) Model 6
Years of schooling	0.0215***	0.0136***	0.0103***	0.00838***	0.00832***	0.00833***
	(0.000437)	(0.000456)	(0.000462)	(0.000468)	(0.000470)	(0.000471)
Better place		0.0970***	0.0670***	0.0474***	0.0477***	0.0474***
		(0.000839)	(0.00101)	(0.00109)	(0.00110)	(0.00110)
Culture			0.0483***	0.0357***	0.0357***	0.0358***
			(0.000911)	(0.000959)	(0.000963)	(0.000965)
Economy				0.0479***	0.0477***	0.0475***
				(0.000941)	(0.000945)	(0.000946)
Not discriminated					-0.0188***	-0.0177***
					(0.00650)	(0.00651)
Religious						0.00301***
						(0.000574)
Age	-0.00242***	-0.00245***	-0.00244***	-0.00275***	-0.00273***	-0.00282***
	(8.55e-05)	(8.96e-05)	(9.08e-05)	(9.22e-05)	(9.27e-05)	(9.44e-05)
Gender	0.0200***	0.0237***	0.0192***	0.0343***	0.0344***	0.0316***
	(0.00287)	(0.00301)	(0.00305)	(0.00310)	(0.00312)	(0.00316)
Native	-0.0487***	0.0275***	0.0316***	0.0391***	0.0400***	0.0423***
	(0.00525)	(0.00562)	(0.00566)	(0.00573)	(0.00578)	(0.00581)
Partisan right	-0.0351***	-0.0280***	-0.0247***	-0.0255***	-0.0256***	-0.0262***
	(0.000713)	(0.000759)	(0.000773)	(0.000787)	(0.000792)	(0.000805)
Income	0.0105***	0.00549***	0.00409***	0.00230***	0.00245***	0.00265***
	(0.000607)	(0.000638)	(0.000647)	(0.000657)	(0.000660)	(0.000661)
Unemployed	-0.0344***	-0.0189**	-0.0195***	-0.0115	-0.0129*	-0.0121
	(0.00692)	(0.00746)	(0.00752)	(0.00764)	(0.00767)	(0.00769)
Observations	141,547	139,772	138,724	137,402	136,379	136,107
Country FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Pseudo R2	0.0970	0.1917	0.2098	0.2263	0.2266	0.2268

Notes: Probit estimations: The coefficients are estimated marginal effects, that is, holding all other coefficients at their sample means, the change in the estimated probability of favoring immigration (Pr y =1) associated with a unit increase in the value of the relevant coefficient. The dependent variable is the dichotomous variable: To what extent do you think [respondent´s country] should allow people from poorer countries outside Europe to come and live here. Standard errors in parentheses *** $p<0.01$, ** $p<0.05$, * $p<0.1$. The country and year dummies included in the estimations is not shown here. Cases weighted by DWEIGHT.

In the first column we present our original benchmark model. In the next column we add the control variable better place, as we can see it is statistically significant and positive. The positive sign is not very surprising because it means that the more the respondent thinks that the country becomes a better place to live in due to immigration, the more likely the respondent is to favour immigration. In column 3 we add the variable that we call culture. Here we also obtain a positive and statistically significant result, which means that respondents are more likely to favour immigration if they do not think that the national culture gets undermined by immigration. We can see that these two noneconomic variables are always statistically significant and positive in all of the models. This suggests that it is not only the common economic considerations and the skill level of the immigrants that decides the immigration attitudes; instead these noneconomic and cultural considerations seem to be a contributing factor.

However, as discussed in the literature chapter, individuals may also be concerned about the more general welfare effects of immigration on the nation as a whole. To test for this assertion, we include the variable economy in column 4. The coefficient is statistically significant and positive, in other words, if the respondent think that immigration will be bad for the country's economy it will be more likely that the respondent has worse attitudes towards immigration. In the last 2 columns we also include the variables not discriminated and religious and both estimates get statistical significant results. According to these results, if the respondent considers herself/himself not to belong to a group that is discriminated against it will be more likely that the respondent has worse attitudes towards immigration. On the contrary, better attitudes are more likely if the respondent is very religious.

The results obtained in Table 7 indicates, as in previous studies, that cultural considerations and worries about the nation as a whole seem to be associated with individuals' attitudes towards immigration.[20] This can be seen quite clearly, that when the "value variables" are added to the model in column 2 and 3, the relationship decreases between years of schooling and pro-immigration attitudes and in the same time the models exoplanetary power increases. This is also the case when the economy variable in column 3 is added to the model.

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[20] Because of this we re-estimated our previous estimates including these value variables, for example those presented in Table 6. Including these additional variables did not change our main interpretations of the discussion in section 5.4 of the labor market competition model.

5.6 Robustness tests

5.6.1 Ordered probit regression

In our main empirical analysis, we have used a dichotomous dependent variable that takes the value of 0 or 1. As described in the data chapter we created this variable out of four categories, 0 if the answer was "allow few" or "allow none" and 1 if the answer was "allow many" or "allow some". As a sensitivity test of the cutoff point of the dichotomous dependent variable we estimated a couple of ordered probit models. For brevity we do not present all of these models here[21], but on the next page in Table 8 we present an ordered probit model where we include all of the control variables, as in our most extensive model in Table 7 (column 6).

In Table 8 the estimates reported are the marginal effects that each regressor has on the probability of a response falling into each of the four categories. These estimations provide evidence that our choice to choose a binary probit model do not change our main results. For example, we can see that years of schooling has a negative and statistically significant impact on the predicted probability of answering "allow few" and "allow none" and a positive and statistically significant impact on the predicted probability of "allow many" and "allow some". This shows that the chosen cutoff point for the binary dependent variable seems to have been accurate.

5.6.2 Additional controls

In order to examine if our main results in the benchmark model and interpretations of the value variables are correct and robust we added additional control variables to our previously used variables. The results of these estimations can be found in table 12 in the appendix. We included a wide range of different trust variables: if the respondent think that most people can be trusted, trust in parliament, trust in legal system, trust in police, trust in politicians and trust in European parliament. We also included controls for how satisfied the respondent was with life, satisfied with the economy, if to allow immigrants of same/different race, important people are treated equally, important to care for others well-being, important to follow traditions, how active in social activities, if member of trade union, and if respondent ever had been unemployed more than three months while seeking work.

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[21] Full results from all the estimations are available from the authors.

For the most part the supplement of these variables does not change our main findings in previous models. But the variables not discriminated, income, and unemployed do not get statistically significant results. We therefore re-estimated our models without these variables, but this did not change any of our substantive results and interpretations.

Table 8. *Ordered probit model*

VARIABLES	(1) Allow none	(2) Allow few	(3) Allow some	(4) Allow many
Years of schooling	-0.00170***	-0.00505***	0.00415***	0.00260***
	(9.59e-05)	(0.000281)	(0.000233)	(0.000145)
Better place	-0.0125***	-0.0373***	0.0306***	0.0192***
	(0.000255)	(0.000731)	(0.000615)	(0.000379)
Culture	-0.00890***	-0.0265***	0.0218***	0.0137***
	(0.000220)	(0.000634)	(0.000532)	(0.000326)
Economy	-0.0124***	-0.0370***	0.0303***	0.0190***
	(0.000231)	(0.000643)	(0.000548)	(0.000335)
Not discriminated	0.00502***	0.0150***	-0.0123***	-0.00771***
	(0.00130)	(0.00389)	(0.00319)	(0.00200)
Religious	-0.000739***	-0.00220***	0.00181***	0.00114***
	(0.000116)	(0.000346)	(0.000284)	(0.000179)
Age	0.000777***	0.00232***	-0.00190***	-0.00119***
	(2.02e-05)	(5.80e-05)	(4.79e-05)	(3.07e-05)
Gender	-0.00694***	-0.0207***	0.0170***	0.0107***
	(0.000633)	(0.00188)	(0.00155)	(0.000970)
Native	-0.00939***	-0.0280***	0.0229***	0.0144***
	(0.00118)	(0.00350)	(0.00288)	(0.00180)
Partisan right	0.00621***	0.0185***	-0.0152***	-0.00954***
	(0.000170)	(0.000495)	(0.000411)	(0.000257)
Income	-0.000509***	-0.00152***	0.00125***	0.000782***
	(0.000133)	(0.000396)	(0.000325)	(0.000204)
Unemployed	0.00423***	0.0126***	-0.0103***	-0.00649***
	(0.00164)	(0.00487)	(0.00400)	(0.00251)
Observations	136,107	136,107	136,107	136,107
Country FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES

Notes: Ordered probit estimations: The coefficients are estimated marginal effects, that is, the marginal effect that each independent variable has on the probability of a response falling into each possible category. The dependent variable is the dichotomous variable: To what extent do you think [respondent´s country] should allow people from poorer countries outside Europe to come and live here. Standard errors in parentheses*** $p<0.01$, ** $p<0.05$, * $p<0.1$. The country and year dummies included in the estimations is not shown here. Cases weighted by DWEIGHT.

5.6.3 Year and country specific estimations

As described in section 5.3 we have also estimated the benchmark model for each of the ESS countries for each year separately, since one objection could be that the model presented in Table 5 does not capture any difference over time. Table 11 reports the marginal effects of *years of schooling* when the benchmark model is estimated on every country for every year. The countries are ranked according to level of GDP per capita, and the assumption is that the skill level of the respondents is increasing on average in GDP per capita. If the labor market competition model is a critical determinant of attitudes we should see better attitudes towards immigrants from poor countries when looking at countries with high GDP per capita. All results are positive and significant for all years and countries. This is not in line with labor market competition since countries with lower GDP per capita should show worse attitudes to poorer countries (they should feel more threatened since they are assumed to have lower skills).

In this estimation, the *income* variable is not used instead we use *income satisfaction*[22]. This did not alter the result compared to previous estimates and this meant that we could include all countries for all years. For example, the *income* variable was missing for the whole first round for France and excluding the variable increased our observations, because for most of the countries it was a bottleneck in terms of observations.

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[22] The coding for this variable is: 1 = living comfortably on present income; 2 = coping on present income; 3 = difficult on present income; 4 = very difficult on present income.

Table 11. *Effects from education on attitudes. Year- and country-specific estimates*

Years of schooling	(1) All years	(2) 2002	(3) 2004	(4) 2006	(5) 2008	(6) 2010	(7) 2012	(8) 2014	(9) 2016	(10) GDP/capita[1]
Norway	0.0193***	0.0222***	0.0244***	0.0187***	0.0211***	0.0221***	0.0130***	0.0156***	0.0174***	92 748
	(0.00119)	(0.00344)	(0.00359)	(0.00331)	(0.00351)	(0.00380)	(0.00267)	(0.00361)	(0.00315)	
Switzerland	0.0245***	0.0277***	0.0244***	0.0209***	0.0165***	0.0274***	0.0296***	0.0281***	0.0256***	80 339
	(0.00154)	(0.00451)	(0.00398)	(0.00409)	(0.00444)	(0.00454)	(0.00410)	(0.00497)	(0.00417)	
Belgium	0.0196***	0.0332***	0.0192***	0.0222***	0.0207***	0.0267***	0.00941***	0.0170***	0.0141***	45 558
	(0.00129)	(0.00438)	(0.00353)	(0.00363)	(0.00357)	(0.00379)	(0.00334)	(0.00364)	(0.00343)	
Sweden	0.0138***	0.0162***	0.0133***	0.0133***	0.0138***	0.0151***	0.0115***	0.0147***	0.00981***	55 129
	(0.000917)	(0.00266)	(0.00298)	(0.00248)	(0.00239)	(0.00244)	(0.00256)	(0.00258)	(0.00244)	
Ireland	0.0180***	0.0208***	0.0142***	0.0200***	0.0284***	0.0125***	0.0137***	0.0224***	0.0160***	54 242
	(0.00145)	(0.00396)	(0.00436)	(0.00479)	(0.00407)	(0.00375)	(0.00372)	(0.00427)	(0.00378)	
Netherlands	0.0173***	0.0210***	0.0167***	0.0149***	0.0138***	0.0161***	0.0157***	0.0210***	0.0177***	51 333
	(0.00128)	(0.00344)	(0.00390)	(0.00332)	(0.00346)	(0.00345)	(0.00365)	(0.00374)	(0.00399)	
Finland	0.0195***	0.0255***	0.0217***	0.0180***	0.0212***	0.0138***	0.0170***	0.0178***	0.0237***	48 361
	(0.00107)	(0.00341)	(0.00307)	(0.00299)	(0.00292)	(0.00270)	(0.00280)	(0.00280)	(0.00332)	
Germany	0.0267***	0.0361***	0.0261***	0.0312***	0.0224***	0.0173***	0.0215***	0.00849***	0.0267***	44 499
	(0.00344)	(0.00368)	(0.00348)	(0.00354)	(0.00372)	(0.00293)	(0.00297)	(0.00298)	(0.00344)	
Great Britain	0.0229***	0.0337***	0.0288***	0.0151***	0.0225***	0.0251***	0.0209***	0.0186***	0.0265***	42 617
	(0.00145)	(0.00429)	(0.00527)	(0.00344)	(0.00359)	(0.00385)	(0.00395)	(0.00388)	(0.00388)	
France	0.0260***	0.0260***	0.0260***	0.0211***	0.0241***	0.0276***	0.0229***	0.0328***	0.0288***	41 804
	(0.00163)	(0.00163)	(0.00163)	(0.00359)	(0.00369)	(0.00442)	(0.00380)	(0.00446)	(0.00385)	
Slovenia	0.0248***	0.0170***	0.0267***	0.0222***	0.0162***	0.0217***	0.0267***	0.0470***	0.0284***	23 941
	(0.00184)	(0.00506)	(0.00540)	(0.00483)	(0.00477)	(0.00524)	(0.00550)	(0.00627)	(0.00518)	
Poland	0.0169***	0.0286***	0.0121***	0.00769*	0.0157***	0.0167***	0.00944**	0.0215***	0.0175***	13 232
	(0.00154)	(0.00419)	(0.00462)	(0.00433)	(0.00418)	(0.00378)	(0.00382)	(0.00483)	(0.00459)	
Country FE	YES	NO	NO	NO	NO	NO	NO	NO	NO	
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	

Notes: Probit estimations: The coefficients are estimated marginal effects of the variable *Years of schooling*, that is, holding all other coefficients at their sample means, the change in the estimated probability of favoring immigration (Pr y =1) associated with a unit increase in the value of the relevant coefficient. The dependent variable is the dichotomous variable: To what extent do you think [respondent´s country] should allow people from poorer countries outside Europe to come and live here. Standard errors in parentheses*** $p<0.01$, ** $p<0.05$, * $p<0.1$. The country and year dummies included in the estimations is not shown here. Cases weighted by DWEIGHT. 1. GDP per capita is calculated from average between 2009-2016.

6. Discussion

The discussion is divided into two parts, first we will discuss our results on the labor market competition model and what implications it might have on attitudes. Second, we will look closer at the refugee crisis and what implication it might have had on the attitudes around in Europe over our sample period.

6.1 Labor market competition and characteristics

As has been discussed throughout this thesis, a common perception in both empirics and supported in theory is that labor market competition between natives and immigrants can explain native attitudes towards immigration. However, as discussed in the literature chapter this picture of what causes attitudes regarding immigration is not always supported. To try to shed some light onto this matter we tested for this in the result and analysis chapter. Recall that, as described in the theory chapter, if effects of labor market competition are an explaining factor to immigration attitudes, and if years of schooling is a measure of skill level, then years of schooling should have a strong positive relationship with pro-immigration from poorer countries and not as strong, or even a negative, relationship with pro-immigration from richer countries.

We find that irrespective of which type of immigrants in question the respondents with more years of schooling are more likely to favor immigration, as we have shown in Table 7. This is contrary to what we would expect and put the labor market competition premise in forming immigration attitudes into question. These findings are in line with some of the previous studies that have tested for this. In Hainmueller and Hiscox (2007) they perform a similar investigation. The four dichotomous dependent variables they use for indicating support for immigration is based on type of source country of the immigrants, richer/poorer countries in Europe or richer/poorer countries outside Europe. Hainmueller and Hiscox argue that their dependent variables, contrary to previous studies, let them separate the expected skill levels of the immigrants. Immigrants from richer countries will be expected to have higher skills then those from poorer countries, and that this allows them to more directly test the arguments for labor market competition. However, the four dichotomous dependent variables that are used in our model in Table 6 are according to us an improvement to prior studies, for testing the hypothesis about labor market competition. This is because our dependent variables clearly state that it is professional or unskilled immigration from Europe or outside Europe.

Another finding in our results, that further reinforces our discussion about the labor market competition model, is that countries with lower GDP per capita do not seem to have worse attitudes towards immigration from poor countries outside Europe compared to the countries with higher GDP per capita.

Based on our findings in this thesis, and that some of the previous literature get similar results, we have reason to question the labor market competition model explanation of anti-immigration attitudes. A reason to why some of the previous literature finds support for this model could be that the assumptions they make actually not holds. For example, in Scheve and Slaughter (2001) they assume that U.S. citizens think that current immigrant inflows increase the relative supply of less-skilled workers. But we have found, just like other studies, that higher educated individuals seem to have more favorable attitudes towards immigration on average regardless of which type of immigration. Therefore, cannot the findings by Scheve and Slaughter, that lower skilled workers have worse attitudes towards immigration, be a sufficient evidence for that the labor market competition holds.

It is not possible to entirely rule out that attitudes towards immigration is formed in some way based on personal economic considerations, but the growing evidence of empirical findings suggests that the material self-interest is not the prevailing driver of attitudes toward immigration. Instead the empirical findings weights towards the idea that it is considerations about cultural values and believes that is the main driver of attitudes towards immigration. Our results are in line with this growing body of empirical evidence. In our simple benchmark model, we find that the control variables that we use get the expected values according to previous studies. When the control variables that we use as a measure for cultural values and considerations about the country are added to the model (Table 7) there are some interesting things to discuss.

To begin with, the relationship between years of schooling and pro-immigration attitudes decreases and in the same time the explanatory power of the model increases. What first could be thought then was that having higher skills, more years of schooling, meant it would be much more likely to favor immigration. A large part of this effect in the simple benchmark model is actually due to omitted variables, the marginal effect of years of schooling is almost halved after adding the additional controls. We can however not provide any verification that our results explain a causal relationship, which already has been discussed in chapter 4.

Another interesting result to discuss is that the marginal effect of the control variable *native* goes from being negative in the benchmark model to being positive. This means that a respondent that is born in the country that is surveyed is more likely to favor immigration compared to respondents that is not born in the country. We are not alone in getting this result when adding more variables to the model; Hainmueller and Hiscox (2007) also get a positive marginal effect for being native in one of their most extensive models. It is hard to explain why we get this result, but we still get a highly significant positive estimate when we, as a robustness test, include even more additional controls[23].

Moreover, some of the other variables are also interesting to discuss, to further analyze the individual characteristics associated with pro-immigration attitudes. For instance, we find that older respondents are expected to be more likely to oppose immigration, since the marginal effect for *age* is negative. An explanation to this could be that individuals become more conservative when they get older and therefore are more opposed to immigration. But an objection to this reasoning could be that cohort effects are involved and that future cohorts maybe will be different. Another interesting variable is *partisan right*. That a respondent who is placed more to the right on the political scale are more likely to oppose immigration comes as no surprise, since political parties with far-right orientation are the ones that are most against immigration. An interesting thought about the growth of such radical right-wing parties over the past several years and that questions about immigration has become more and more important in the political debate, is that the knowledge about immigration has increased. With this increased focus on immigration and a growing body of empirical evidence that shows that immigration have a quite small effect on natives' income and employment might lead to reduce negative attitudes towards immigration.

6.2 Effect of the refugee crisis

The last part of the discussion above takes us into another objective we had in this thesis, to observe how attitudes towards immigration has changed during the 21th century and also to examine if the refugee crisis in 2015 has had an impact on attitudes towards immigration. Today most countries in Europe have at least one successful far-right oriented political party with an interest to greatly reduce immigration. With this development, and the increasing number of immigrants due to the refugee crisis, it may seem easy to conclude that Europe's population should become more negative towards

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[23] Presented in Table 10 in the appendix.

immigration. This does not seem to be the case according to our findings. The overall attitudes towards immigration for each year, presented in Table 1, seem to be rather sticky. There is no clear observable trend and the development appears to be relatively horizontal. The year that gets the highest measure of pro-immigration attitudes is 2016, which gives the indication that the refugee crisis in 2015 has not made the overall attitudes towards immigration worse. The same pattern is found when observing each of the studied countries separately. Further analyses of the development of immigration attitudes has been performed on a wide range of different sub-groups, some described in the result and analysis chapter. Our interpretations of these results remain the same, the attitudes towards immigration seems to be rather sticky and that the refugee crisis in 2015 has not made the attitudes worse, on the contrary the majority of the observed measures in attitudes has become more favorable towards immigration in 2016 compared to 2014. We could also see an indication in Table 1 that the attitudes got slightly more polarized over the years. This could mean that the issues of immigration have a potential to be politically divisive when observing the effect in Europe overall, but as we have discussed above the development of the attitudes were quite stable over the years. We have seen both from previous studies and from our findings in this thesis that anti-immigration attitudes are formed from a combination of concerns about the economic and cultural consequences of immigration, with a weight on cultural concerns. Yet to explain why we see this development in attitudes are a very complex question and beyond the scope of this thesis. However, a possible interpretation of this progress in attitudes could be that in today's information society with an increased knowledge about consequences of immigration and empathy against immigrants due to war and poverty, could lead to dampen anti-immigration attitudes.

As we discussed in the introduction, policymakers may take the public thoughts about immigration into account when they design integration policies. Our findings in this paper is therefore of importance, in the sense that it sheds light onto the current state of the public attitudes towards immigration and how the public attitudes have changed over time. In ESS (2017) they present some studies that analyzes the relationship between integration policies and attitudes towards immigrants. However, there is yet to be found if there is any causality in this relationship. But the studies find evidence that more inclusive integration policies are related to positive public opinion in immigrants, and that this can function as a virtuous circle. This means that the more

positive public opinions, due to the more inclusive integration policies, can in turn lead to even more inclusive integration policies.

As previously discussed, one reason to why attitudes have become better could be the increase in availability of information. For business, Peter Drucker (2011) argues the power have shifted from supplier to distributer in later years. When information is becoming both more accessible and cheaper, it could arguably alter how business is being conducted at its core all around the world. Furthermore, he makes the prediction in the years to come, it will most certainly be displaced to the customer due to the simple reason consumers will have full access to information from all over the world. Contrary to this, the spreading of false information has become more common, i.e. in the light of the presidential election in the United States and the crisis in Ukraine huge effort was made to spread false information to tip elections in either direction. This has put more pressure on business to be more transparent and for individuals to be more critical when reading and assimilating new information.

This could be one of the reason to why attitudes is becoming more polarized over our sample. Individuals opposing immigration can easy seek and recall bad information about immigrants even though it might be false information. On the other hand, easy access to information might make individuals more conscious on what is going on in countries being exposed to war and crisis, changing their attitudes for the better when feeling empathy for refugees and their situation.

Individuals fleeing from these regions might suffer from bad health, diseases or hurt in some other way, due to circumstances in their home country. These negative effects from the refugee crisis is not self-inflicted but rather a consequence due to war and conflicts in these regions and is outside their control. Contrary, immigration might be a boost to the economy where they choose to settle giving rise to a more diversified culture and labor market which could promote new thoughts and ideas to the country. With an aging population an influx of younger individuals could help maintain services to the aging population increasing public finances and decreasing the pension gap. Refugees can also provide remittance to their home-country and if they later return, they will bring savings, skills and international contacts back to their home country. Positive effects from immigration is often related to the whole society where immigrants can bring diversity, promote innovation and reduce the aging population, whereas the negative effect is often on individual level. Negative effects are often sociotropic where 'the integrated threat theory of prejudice' could explain where some of the negative

prejudices originates from. What is measured when looking at attitudes is the average from these positive and negative effects where it seems like the increase in accessible information and increase in awareness on what is going on in the world seem to tip attitudes for the better in later years.

Attitudes have not changed the same over all of Europe. These differences could be due to access to information were internet access can differ quite substantially between countries. It is also a big difference in the number of refugees' different regions have received where a big influx of immigration and refugees might put more pressure on natives' opinions on immigrants. E.g. Sweden and Finland are neighboring countries with quite different attitudes, Sweden showing best attitudes in our sample and Finland the worse. Sweden has also received most refugees whereas Finland did not receive many immigrants. One possible explanation for this could be that Swedes seek and recall, and is becoming more aware of the situation on what is really going on for refugees, whereas Finland do not have the same incentive, either politically nor individually to make a change in their attitudes.

7. Summary and conclusion

The main questions that we have addressed in this thesis are whether attitudes towards immigration have changed in Europe during the 21th century, if the refugee crisis in 2015 has had an impact on these attitudes, and what factors are associated with individual attitudes towards immigration. Based on the growth of radical right political parties throughout the 21th century, the acceleration of refugee applications during the refugee crisis, and common perceptions about immigration in both empirics and theory, our findings in this thesis may for some come as a surprise. Our results indicate that natives' attitudes towards immigration on average has not become worse in Europe so far in the 21th century, and that the refugee crisis in 2015 has not made the attitudes worse, on the contrary attitudes has become more favorable towards immigration in 2016 compared to 2014. It may seem easy to assume that Europe's population has become more negative towards immigration, based on the prosperity of political parties with far-right orientation and the increased pressure on the European countries due to the refugee crisis, but we find no support for such assumptions in our results. Instead, the findings suggest that the enhanced focus on immigration in the political debate, the increased common knowledge about consequences of immigration, and empathy against immigrants due to war and poverty, could lead to dampen anti-immigration attitudes.

Our results also indicate that we have reason to question that opposition to immigration is driven to a large degree by fears about labor market competition. We find that the factors that are associated with individual attitudes towards immigration are to a large degree connected with cultural values and beliefs, and that individuals with more years of schooling are more likely to favor immigration regardless of where the immigrants come from. These findings thus suggest that attitudes towards immigration have little to do with competition for jobs and concerns about earnings. This conclusion is in line with the growing body of empirical findings that weights towards the idea that it is considerations about cultural values and believes that is the main driver of attitudes towards immigration, and that actual effects of immigration on income and employment are quite small.

This thesis has contributed to the empirical research with a mapping of the development in immigration attitudes in Europe and shown that the attitudes have not become worse due to the refugee crisis in 2015. Furthermore, the findings in the thesis has strengthened the growing body of empirical findings that weights towards the idea that it is considerations about cultural values and believes that is the main driver of attitudes towards immigration. Suggestions for future studies in this subject are to do a follow up analysis of how the refugee crisis affected attitudes towards immigration after a couple of years and to further study what factors are associated with immigration attitudes. Furthermore, experimental manipulation to try to isolate casual effects of cultural and sociotropic economic factors would be an interesting starting point for future research.

The results in this thesis have some indicative suggestions for how policy makers should act to mitigate anti-immigration sentiments. To only help pressured areas that face high costs caused by immigration with financial support and employment creation programs will not be enough since anti-immigration attitudes has shown not to be primarily associated with natives' material self-interest and economic concerns. Instead other efforts that can help to dampen anti-immigration sentiments are to increase the knowledge about immigration as a cultural threat and work out biased information about immigration. However, it would be very naive to suggest that more education would automatically solve everything. We can´t know for sure that the anti-immigration attitudes only originate from biased information about immigrants, because immigration is a subject that raises very strong emotions about national identity which might be unchangeable.

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Appendices

Table 9. *Summary statistics*

Variable	Observations	Mean	Standard deviation	Minimum	Maximum
Years of schooling	185302	12.81	3.80	0	56
Age	185831	47.98	18.56	14	123
Gender	186380	0.52	0.50	0	1
Native	186413	0.90	0.30	0	1
Partisan right	169765	5.09	2.09	0	10
Income	155594	5.53	2.67	1	10
Income satisfaction	181718	1.81	0.78	1	4
Culture	182147	5.98	2.42	0	10
Economy	181601	5.12	2.35	0	10
Better place	181664	5.17	2.21	0	10
Feel discriminated	184251	1.93	0.25	1	2
Religious	185427	4.60	3.00	0	10
Unemployed	185664	0.05	0.22	0	1
Minority	47059	1.62	0.68	1	3
People can be trusted	186178	5.35	2.34	0	10
Trust in parliament	182465	4.78	2.45	0	10
Trust in legal system	183168	5.50	2.49	0	10
Trust in police	185330	6.44	2.31	0	10
Trust in politicians	183882	3.93	2.29	0	10
Trust in European parliament	170240	4.46	2.34	0	10
Satisfied with life	186077	7.33	2.05	0	10
Satisfied with economy	183146	4.98	2.41	0	10
Allow none of same race	182666	2.11	0.79	1	4
Allow none of different race	182600	2.35	0.833	1	4
Not important treated equally	179504	2.02	1.00	1	6
Not important care of well-being	179591	2.18	0.95	1	6
Not important follow traditions	179433	2.83	1.38	1	6
Take part of social activities	184772	2.77	0.92	1	5
Not member of trade union	185762	2.33	0.82	1	3
Never unemployed and seeking work more than 3 months	185844	1.74	0.44	1	2

Table 10. *Description of variables*

Name	Measured
Years of schooling	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.
Age	What year were you born?
Gender	Code sex, male = 0 and female = 1
Native	Code native, foreign born = 0 and born in country =1
Partisan right	"Regardless of whether you belong to a particular religion, how religious would you say you are?" Answers are coded on a scale from 0 [Not at all religious] to 10 [Very Religious].
Income	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. Scale from 1 to 10.
Income satisfaction	Which of the descriptions on this card comes closest to how you feel about your household's income nowadays? 1 = living comfortably on present income; 2 = coping on present income; 3 = difficult on present income; 4 = very difficult on present income.
Culture	Using this card, would you say that [country]'s cultural life is generally undermined or enriched by people coming to live here from other countries? 0 = undermined, 10 = enriched.
Economy	Would you say it is generally bad or good for [country]'s economy that people come to live here from other countries? 0 = bad, 10 = good.
Better place	Is [country] made a worse or a better place to live by people coming to live here from other countries? 0 = worse place to live, 10 = better place to live.
Feel discriminated	Would you describe yourself as being a member of a group that is discriminated against in this country? 1 = yes, 2 = no
Religious	Regardless of whether you belong to a particular religion, how religious would you say you are? 0 = not at all religious, 10 = very religious.
Unemployed	Which of these descriptions best describes your situation (in the last seven days)? 0 = paid work, education, permanently sick or disabled, retired, community or military service, or household, 1 = unemployed and looking for job or unemployed and not looking for job.
Minority	How would you describe the area where you currently live? 1 = almost nobody minority race/ethnic group in current living area, 2 = some, 3 = many
People can be trusted	Generally speaking, would you say that most people can be trusted, or that you can't be too careful5 in dealing with people?
Trust in parliament	How much you personally trust each of the institutions I read out: Parliament. No trust at all = 0, Complete trust = 10
Trust in legal system	How much you personally trust each of the institutions I read out: Legal system. No trust at all = 0, Complete trust = 10
Trust in police	How much you personally trust each of the institutions I read out: Police. No trust at all = 0, Complete trust = 10
Trust in politicians	How much you personally trust each of the institutions I read out: Politicians. No trust at all = 0, Complete trust = 10
Trust in European parliament	How much you personally trust each of the institutions I read out: European parliament. No trust at all = 0, Complete trust = 10.
Satisfied with life	All things considered, how satisfied are you with your life as a whole nowadays? Extremely dissatisfied = 0, Extremely satisfied = 10.
Satisfied with economy	On the whole how satisfied are you with the present state of the economy in [country]? Extremely dissatisfied = 0, Extremely satisfied = 10.
Allow none of same race	To what extent do you think [country] should allow people of the same race or ethnic group as most [country]'s people to come and live here? Allow many to come and live here = 1, Allow none = 4.
Allow none of different race	How about people of a different race or ethnic group from most [country] people? Allow many to come and live here = 1, Allow none = 4.
Not important treated equally	Now I will briefly describe some people. Please listen to each description and tell me how much each person is or is not like you. He thinks it is important that every person in the world should be treated equally. He believes everyone should have equal opportunities in life. Very much like me = 1, Not like me at all = 6.
Not important care of well-being	Now I will briefly describe some people. Please listen to each description and tell me how much each person is or is not like you. It's very important to him to help the people around him. He wants to care for their well-being. Very much like me = 1, Not like me at all = 6.
Not important follow traditions	Now I will briefly describe some people. Please listen to each description and tell me how much each person is or is not like you. Tradition is important to him. He tries to follow the customs handed down by his religion or his family. Very much like me = 1, Not like me at all = 6.
Take part of social activities	Compared to other people of your age, how often would you say you take part in social activities? Much less than most = 1, Much more than most = 5.
Not member of trade union	Are you or have you ever been a member of a trade union or similar organization? Yes = 1, No = 3.
Never unemployed and seeking work more than 3 months	Have you ever been unemployed and seeking work for a period of more than three months? Yes = 1, No = 2.

Dichotomous dependent variables

In Table 7 four different dichotomous dependent variables are used to test the labor market competition model. These are similar to the dependent variable that is used in the main empirical analysis. Here we will in more detail describe these variables, and they are designed like this:

To what extent do you think [respondent´s country] should allow professionals from [source] to come to live in [respondent´s country]?

- Allow many to come and live here

- Allow some

- Allow few

- Allow none

- Don´t know

There are two versions of this question above and we get them by replacing [source] with:

- Poor European country providing largest number of migrants

- Poor country outside Europe providing largest number of migrants

To what extent do you think [respondent´s country] should allow unskilled laborers from [source] to come to live in [respondent´s country]?

- Allow many to come and live here

- Allow some

- Allow few

- Allow none

- Don´t know

There are two versions of this question above and we get them by replacing [source] with:

- Poor European country providing largest number of migrants

- Poor country outside Europe providing largest number of migrants

Just as in the dependent variable that is used in the main empirical analysis we create a dichotomous variable that equals 0 (anti-immigration) if the answer was "allow few" or "allow none" and 1 (pro-migration) if the answer was "allow many" or "allow some". We exclude the answer "don´t know".

Table 12. *Additional controls*

VARIABLES	Dependent variable: Favor immigration from poorer countries outside Europe
Years of schooling	0.00190***
	(0.000564)
Better place	0.0195***
	(0.00139)
Culture	0.0131***
	(0.00121)
Economy	0.0184***
	(0.00121)
Not discriminated	-0.00835
	(0.00814)
Religious	0.00507***
	(0.000731)
Age	-0.00174***
	(0.000120)
Gender	0.0236***
	(0.00383)
Native	0.0380***
	(0.00698)
Partisan right	-0.0153***
	(0.00101)
Income	-0.000154
	(0.000816)
Unemployed	-0.00260
	(0.00992)
People can be trusted	0.000113
	(0.00100)
Trust in parliament	-0.00605***
	(0.00136)
Trust in legal system	-0.00261**
	(0.00123)
Trust in police	9.44e-06
	(0.00123)
Trust in politicians	0.00483***
	(0.00144)
Trust in European parliament	0.00328***
	(0.00115)
Satisfied with life	0.00127
	(0.00117)
Satisfied with economy	-0.00258**
	(0.00108)
Allow none of same race	-0.117***
	(0.00403)
Allow none of different race	-0.437***
	(0.00462)
Not important treated equally	-0.0303***
	(0.00205)
Not important care of well-being	-0.00468**

	(0.00222)
Not important follow traditions	0.00809***
	(0.00159)
Take part of social activities	-0.00600***
	(0.00215)
Not member of trade union	-0.00137
	(0.00244)
Never unemployed and seeking work more than 3 months	-0.00608
	(0.00449)
Observations	121,120
Country FE	YES
Year FE	YES

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Figure 4.
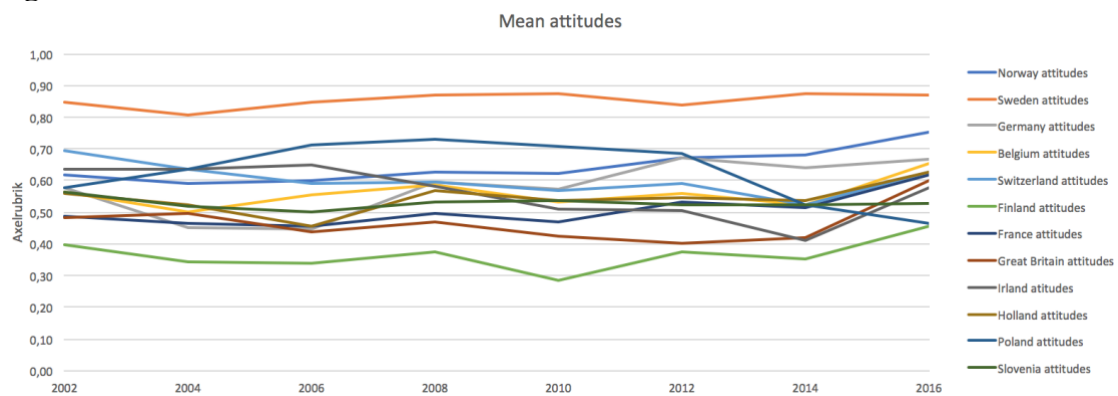
Source: Own calculations.
Note: Mean average attitudes for all countries and years is presented. For all years mean attitude is calculated and presented for easy visual comparison. Results can be found in table 1, section 5.

Figure 5
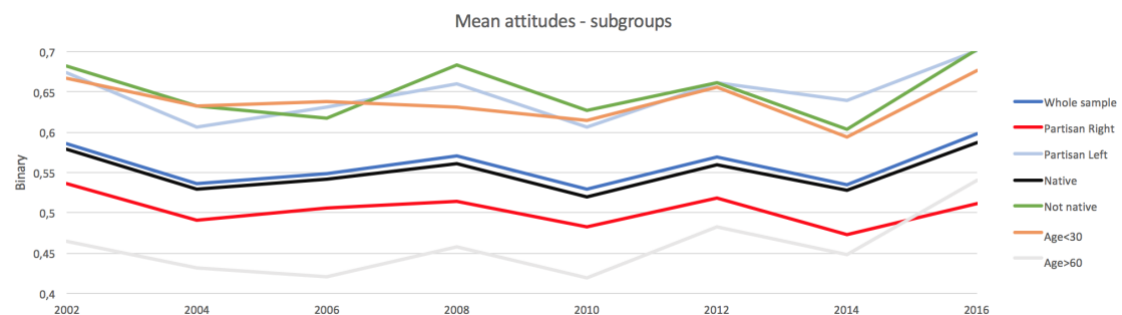
Source: Own calculations.
Note: Mean attitudes for different subgroups is presented for all years of our sample. This is a visual presentation of the results in table 3, section 5 for easier comparison.
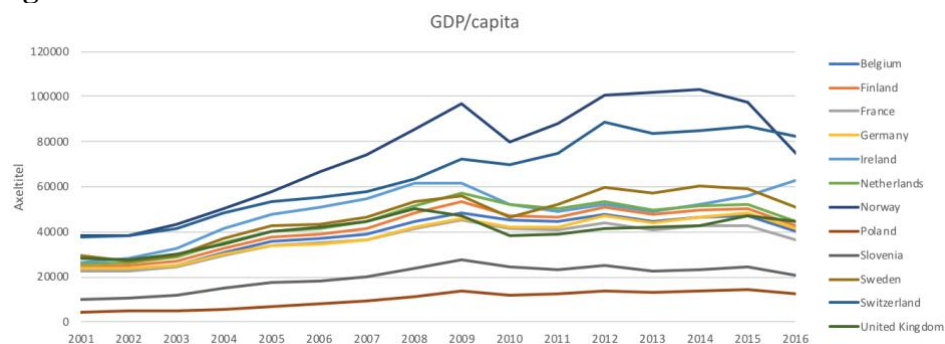
Figure 6

Number of observations [Mean attitudes - subgroups]
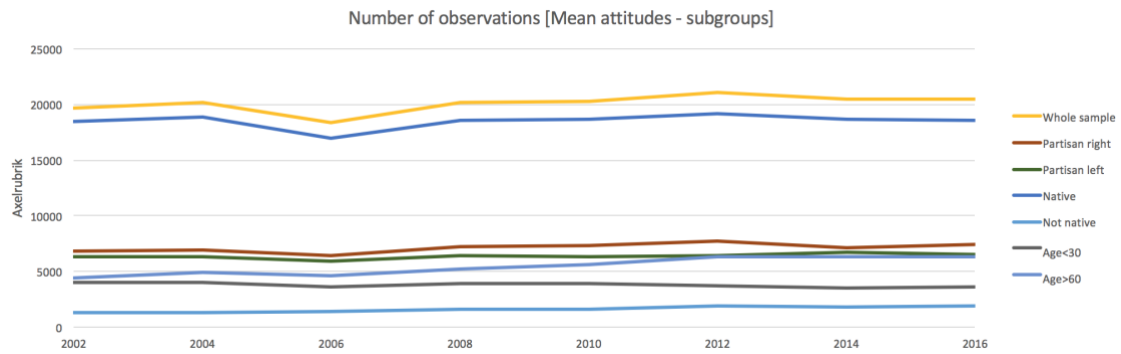
Source: Own calculations.

Note: Number of observations from table 3 is presented. As we can see individuals in the sample is getting older where Age>60 increases and Age<30 decrease.
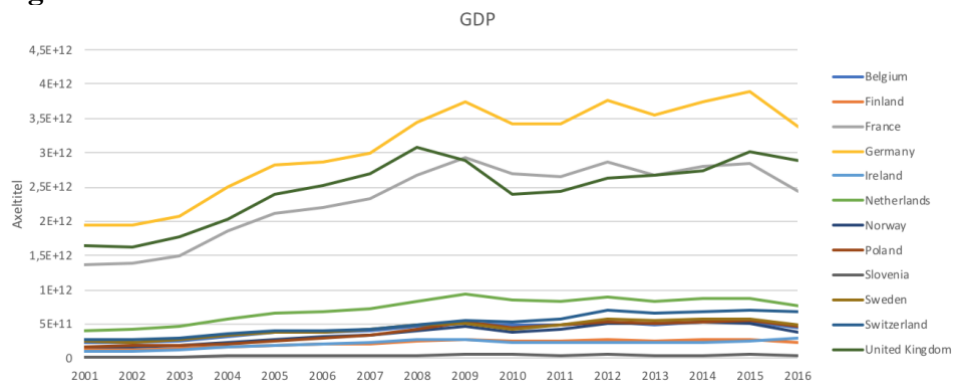
Figure 7.

GDP/capita

Source: Own calculations.

Note: GDP per capita is presented between 2001-2016. Between the year 2009-2016 the countries can be divided into three clear groups depending on their GDP per capita. It is tested whether there is any differences in these three groups on attitudes but results was in line with our benchmark model.

Figure 8.

GDP

Source: Own calculations.

Note: Total GDP is presented between 2001-2016. Test is done on two different groups where it is clear Germany, France and United Kingdom has higher total GDP. The result was in line with our benchmark model and did not deviate to any larger degree.

Figure 9.
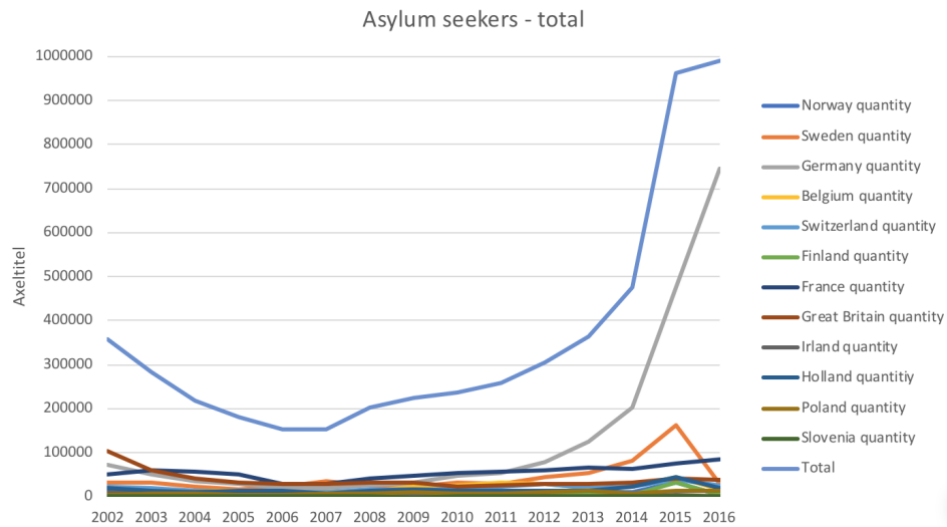
Note: Asylum seekers in all countries included in our analysis is presented. In figure 10 German and Sweden is excluded for easier comparison.
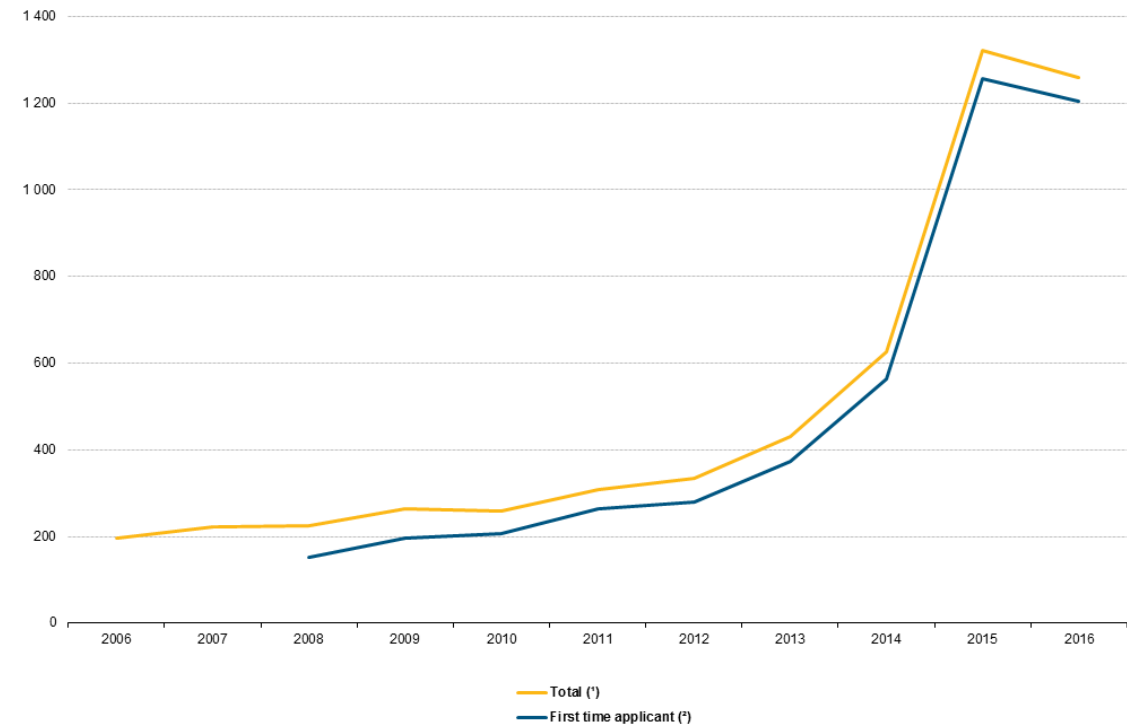
Figure 10.
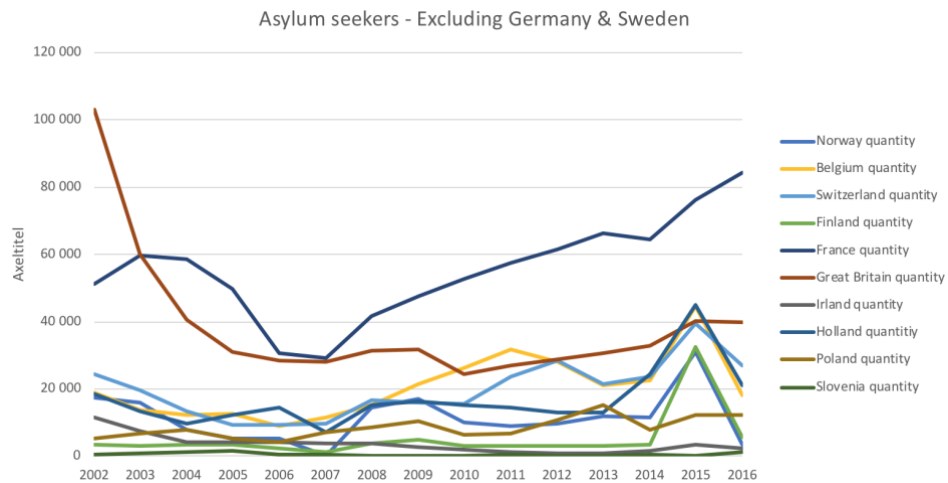
Note: Extension of figure 9 excluding German and Sweden for easier comparison. In 2015 we can spot a spike in refugee in some countries. These countries is tested for to see if there was any specific characteristics in forming attitudes, but results was in line with our benchmark model.
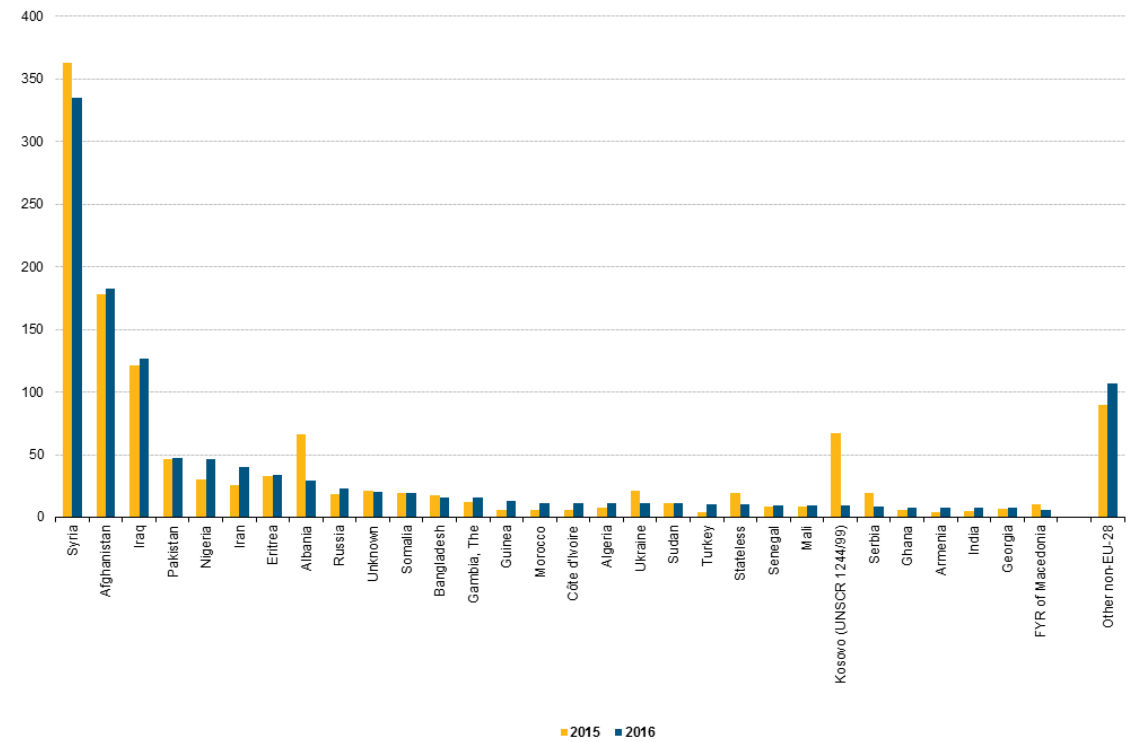
Figure 11.

Figure 12.

Figure 13.

Note: the y-axis is interrupted with a different interval above the interruption from that below it.
(*) 2015: not available.
Source: Eurostat (online data code: migr_asyappctza)