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## **Migration and Well-Being of Older People in Europe**

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# 1 Migration and Well-Being of Older People in Europe

## 1.1 General Introduction

Among other social phenomena, international migration and population aging have transformed the European population structure significantly. Within the past 100 years, many European countries have experienced extensive migration flows due to mass displacements as a consequence of war, increasingly open labor markets, or the expansion of the European Union. Population aging can be explained by declining fertility and increasing longevity among people in many wealthier countries (McDonald & Kippen, 2000; Weil, 1997). Some scientists consider immigration as a possible means to mitigate the consequences of population aging (Alho, 2008; Lanzieri, 2013), while others argue that immigration alone is not sufficient and needs to be supplemented by policies aimed at increasing fertility and labor force participation (Bijak, Kupiszewska, & Kupiszewski, 2008; Camarota, 2005). In 2016, 510.3 million people lived in the European Union (EU28). Out of these, 10.7 percent (54.4 million) were not born in their country of residence and 39.3 percent (200.3 million) were aged 50 and older. The share of people 50+ among the foreign-born population was 26.5 percent (14.4 million) (Eurostat, 2016). Migration and aging can affect people's well-being. This is associated with individual factors such as marital status, socioeconomic status, or health and external factors such as living and working conditions, social environment, and structural circumstances—but also external events or shocks.

Given the growing representation of people with migration background within the aging populations of Europe, studying this particular segment of the population is increasingly important for social scientists and policy makers. Since the aging process pertains both to natives and migrants, the goal of my dissertation is to gain further knowledge about group disparities in well-being among older age groups, the integration of migrants in later life, the long-term benefits from migration, and the welfare impact of immigration on the native population. A large share of the extant literature on social inequality and the integration of immigrants in Europe has focused on their educational attainment, economic performance, and labor market participation (e.g., Fleischmann & Dronkers, 2010; Kogan, 2011; Schnepf, 2007; van Tubergen, Maas, & Flap, 2004). They use rather objective and human capital-related indicators of integration and analyze samples of younger migrants. They show that their educational and economic integration depends on various factors (e.g., origin, compositional differences, contextual factors). Research on the impact of immigration on natives has



also concentrated on economic measures (i.e., objective dimension of well-being) such as wages, income, and employment (e.g., Borjas, 2003; Card, 2001; Dustmann, Fabbri, & Preston, 2005; Ottaviano & Peri, 2012). The findings yield adverse, none, or slightly beneficial effects of immigration on natives' wages and employment. This depends on the skill set of natives and competing migrants.

A growing body of European migrant studies has applied subjective and non-pecuniary indicators of integration such as health and well-being, thereby often discussing the healthy migrant phenomenon (e.g., Hadjar & Backes, 2013; Huijts & Kraaykamp, 2012; Levecque & Van Rossem, 2015; Sardadvar, 2015). The underlying assumption is that migration is a self-selective process because those who migrate may be younger, more educated, and more resilient. For this reason, their health might be better than the health of the native population—at least up to a few years after migration (Jasso, Massey, Rosenzweig, & Smith, 2004; Sardadvar, 2015).

A few studies have been conducted on the health of older migrants in Europe, to whom the healthy migrant phenomenon usually does not apply any more (Aichberger et al., 2012; Ladin & Reinhold, 2013; Lanari & Bussini, 2011; Solé-Auró & Crimmins, 2008). Their results suggest that older people with migration background are more likely to have health problems than the native population in their respective countries.

Studies on the subjective well-being (SWB) of older migrants in the Euro-Mediterranean area are scarce. They are country-specific, focus on person-related characteristics, and do not account for the role of structural or institutional conditions. Apart from demographic features (such as gender and age) and migration-specific variables (like length of residence, language skills, and citizenship), they identify economic resources, health status, social networks, and psychological factors as the main determinants of SWB. While Amit and Litwin (2010) find SWB disparities between different groups of older immigrants in Israel, Kämpfer (2014) detects lower life satisfaction among older immigrants in Germany. So far, there is only limited knowledge on how context factors (e.g., immigration policies) affect the well-being of migrants, especially in later life (Levecque & Van Rossem, 2015; Malmusi, 2015).

Apart from that, few studies have explored the impact of immigration on the SWB of natives (e.g., Akay, Constant, & Giuliotti, 2014; Betz & Simpson, 2013; Ivlevs & Veliziotis, 2015). They find a positive association of immigration with natives' SWB. Ivlevs and Veliziotis (2015) identify an age-dependent impact of immigration (higher SWB of younger

and lower SWB of older natives). While these results refer to voluntary or economic migrants, it remains unclear if they also apply to forced migrants (i.e., refugees).

This dissertation makes several contributions to the literature on migration and well-being. Most studies primarily focus on the economic welfare of younger and employed migrants. To date, little is known about the self-perceived quality of life and well-being of older and retired migrants in Europe. Many of them have resided in their destination countries for a long time. They have grown old abroad and have become an integral part of society. Since representative, individual-level data is needed to derive policy recommendations with respect to advanced age groups, I contribute to the literature on well-being disparities by examining older migrants' social integration and long-term gains of migration in different countries, accounting for both individual and contextual factors. Well-being of migrants is considered in comparison to their relative position in the origin and destination countries. Apart from that, I explore the change in older natives' well-being levels during the event of the large-scale immigrant influx caused by the European refugee crisis. At all instances, I benefit from using cross-national data from the Survey of Health, Ageing and Retirement in Europe (SHARE) and context and/or secondary data from external sources. In order to explain different outcome patterns, the cross-country perspective makes a substantial contribution to each of the works presented in this dissertation.

## **1.2 Subjective Well-Being**

Within the social sciences, good well-being is characterized by a positive state of mind and high levels of life satisfaction (Cummins, Lau, & Strokes, 2004). Subjective well-being is based on individuals' assessment of quality of life (Ormel, Lindenberg, Steverink, & Verbrugge, 1999). Psychological research differentiates between two types of well-being: hedonic well-being and eudaimonic well-being. A hedonic view of well-being focuses on subjectively determined positive mental states. It equates well-being with pleasure and happiness and therefore contains an affective component (i.e., related to feelings and emotions) and a cognitive component (i.e., related to judgements and perceptions about life) (Ryan & Deci, 2001). Eudaimonic well-being refers to experiences that are objectively good for the person (Kagan, 1992). It is directed towards autonomy, determination, interest and engagement, aspirations and motivation, and a sense of meaning, direction or purpose in life (Clark, Frijters, & Shields, 2008; Ryan & Deci, 2001).

### 1.3 Theoretical Concepts

This research employs two measures of subjective well-being that are associated with each other: CASP and life satisfaction. CASP is an index measure of subjective well-being that combines both hedonic and eudaimonic aspects. It is designed to quantify the perceived quality of life and subjective well-being of older respondents, initially developed in a population aged 65 to 75 years (Hyde, Wiggins, Higgs, & Blane, 2003; Sim, Bartlam, & Bernard, 2011). CASP does not only cover aspects of life satisfaction and health, but also social circumstances and functional limitations. It includes questions concerning the domains control, autonomy, self-realization, and pleasure (CASP), the latter representing the hedonic aspect of well-being. While CASP covers many aspects of SWB, life satisfaction explicitly represents the cognitive-judgmental component of SWB. It is highly idiosyncratic, which means that people's judgments of how satisfied they are with their life is imposed solely by internal standards (Diener, Emmons, Larsen, & Griffin, 1985). Therefore, it is the better-suited measure for a within-comparison.

In general, well-being is positively correlated with labor market productivity (Oswald, Proto, & SgROI, 2009), income (J.-E. De Neve & Oswald, 2012), health (Graham, Eggers, & Sukhtankar, 2004), and sociability (J. E. De Neve, Diener, Tay, & Xuereb, 2013). It is negatively correlated with social and material deprivation (i.e., restrictions in terms of financial resources, social connectedness, and access to basic services) (Levitas et al., 2007). Happier people are less likely to be dependent on welfare and health care (Ivlevs, 2014). This argument is especially relevant for older migrants.

### 1.3 Theoretical Concepts

The following sections briefly describe the theoretical concepts I apply to explore the link between migration and well-being. Most studies in this field are not theory-based. According to Set-Point Theory, individuals' SWB levels are relatively constant over time. SWB is determined by personality traits and factors that are hereditary or determined in early life. Despite the relative stability of SWB, unforeseen and pleasant or unpleasant events in life (e.g., lottery win, death of a close person, economic crisis; *here*: large refugee influx) may lead to deviations from people's set point (Diener, Suh, Lucas, & Smith, 1999; Bruce Headey, 2008; B. Headey & Wearing, 1989; Lucas, 2007). The theory is useful to compare individuals' SWB levels before and during/after an event. But even in the absence of events, research may focus on SWB differences between individuals or social groups (*here*: migrants and natives) that are due to characteristics or resources that are unique to them.

Social Production Function Theory accounts for SWB-relevant factors that are determined over the life course. Ormel et al. (1999) integrate psychological with economic theoretical approaches. They argue that people “produce” their own well-being, which is a function of physical well-being (e.g., security, absence of basic needs) and social well-being (e.g., status, relationships) and dependent on individual and structural resources and constraints. At the individual level, the most important resources and constraints are education, income, health, and social ties. A lack of them may increase material and social deprivation and sponsor social exclusion and well-being inequalities (Levitas et al., 2007; Whelan & Maître, 2005). For migrants, it is also necessary to consider the length of residence in the destination country because the assimilation process takes place over time and with increasing exposure to the host culture (Berry, Phinney, Sam, & Vedder, 2006; Gordon, 1964). Since people typically pursue high levels of well-being, income maximization plays an essential role for the decision to migrate. In Sjaastad’s (1962) model of migration, people evaluate the costs and benefits of migration and consider moving to another country if the expected benefits exceed the costs (Nikolova & Graham, 2014; Sjaastad, 1962).

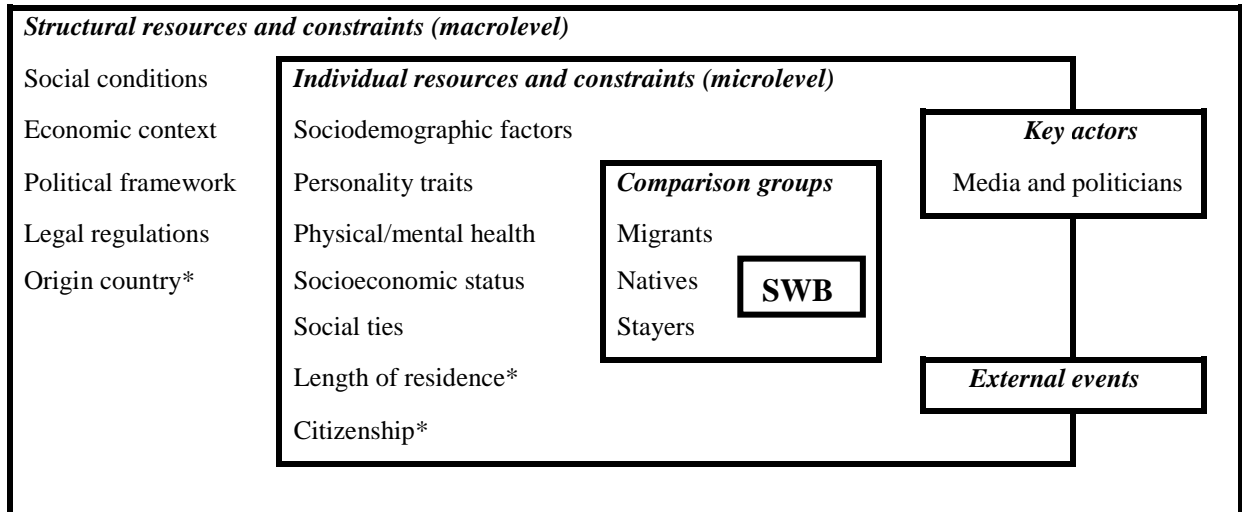
By analyzing migrants who have already settled in their destinations, income and well-being measures can function as indicators of integration and reflect the real economic and perceived welfare gains of immigration. In this regard, Clark et al. (2008) and Gelatt (2013) stress the importance of adaptation/habituation and reference points or comparison groups. For instance, income gains might be high in absolute terms, but not in relative terms (i.e., compared to oneself in the past or compared to the population in the destination or origin countries).

At the macrolevel, the social infrastructure, laws, regulations, and norms of a country represent key resources and constraints for social well-being and consequently for the integration of immigrants (Ormel et al., 1999). According to Sen’s “Capabilities” and Veenhoven’s “Liveability” approach, economic, political, and institutional settings limit and structure the opportunities of individuals (Sen, 1993; Veenhoven, 1996). Maxwell (2010) highlights that the geographic variation of integration outcomes depends on the legal situation of immigrants in the host society. This includes access to citizenship and political participation and is closely related to differences in immigrant integration policies. Apart from that, cultural and institutional characteristics inherent to the place of origin are crucial for SWB and migrants’ integration process (Kämpfer, 2014; van Tubergen et al., 2004). Key actors in the public opinion- and attitude-forming process are the media and politicians (Schemer, 2012).

### 1.3 Theoretical Concepts

Overall, Bonini (2008) found that 81 percent of the variation in subjective well-being can be explained by individual-specific and 19 percent by context factors. Based on the theoretical concepts mentioned above, Figure 1.1 gives an overview of important factors that have to be accounted for when exploring the link between migration and SWB.

Figure 1.1: Factors to consider when exploring the migration-SWB link



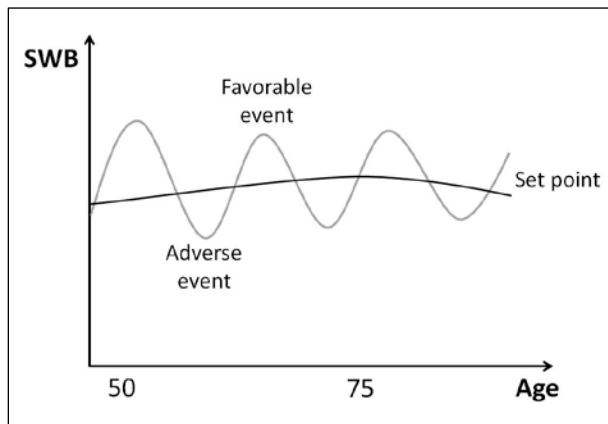
Note: Own illustration; \*applies to migrants only

Depending on the research question, this work employs SWB in different ways. (1) It is used as an indicator of social integration, assuming that integration is achieved once the SWB-levels of migrants align with the ones of natives (Hadjar & Backes, 2013). (2) SWB functions as an indicator for individual utility to reflect the perceived welfare gains in relation to stayers many years after migration (Clark et al., 2008). (3) SWB is applied as an indicator to estimate the perceived impact of immigration on the welfare of the native population (Ivlevs & Veliziotis, 2015).

### Set-Point Theory Revisited

According to well-being and happiness research, individuals have more or less stable SWB levels over the life course. This is in line with Set-Point Theory as described above. However, among people aged 50+, SWB levels could be less stable. It is argued that SWB and age describe a slightly inverted U-shaped relationship with an increase at around age 60, a peak at around age 70, followed by a decrease at around age 75 (Frey & Stutzer, 2002; Frijters & Beaton, 2012; Schwandt, 2016). The slight increase might be result of a decrease in stress factors in life and the decrease due to a decline in health in old age. Even though this aspect is not considered in chapter 5, the applied method and controls should be able to take care of it. Figure 1.2 provides an age-adjusted illustration of Set-Point Theory.

Figure 1.2: Illustration of Set-Point Theory



Note: Own illustration modified from Neutrino (2012)

## 1.4 Data

All my analyses are based on cross-national data from the Survey of Health, Ageing and Retirement in Europe (SHARE).<sup>1</sup> SHARE was started in 2004 and is a multidisciplinary panel study on health, aging, socioeconomic status, and social networks of respondents aged 50 or over (Börsch-Supan et al., 2013). The survey is administered biennially via computer-assisted personal interviews (CAPI). The overall sample comprises more than 120,000 individuals from all EU27 countries and Israel. While SHARE waves 1, 2, 4, 5, and 6 represent regular panel waves, waves 3 and 7 (not released yet) cover respondents' life histories. Since many countries joined the project in the course of time and panel attrition had to be tackled with refreshment samples, most respondents' observations are restricted to certain waves.

For each chapter in this dissertation, the selection of waves and countries depends on my substantive research interest and the availability of data. While the second chapter is based on data from wave 5, the third one uses pooled cross-sectional data from all regular SHARE waves that were available at the time of analysis (i.e., waves 1, 2, 4, 5). The sample examined

<sup>1</sup> The studies of this thesis use data from SHARE Waves 1, 2, 4, 5 and 6. The studies in chapters 2 and 3 are based on release 5.0.0 (DOIs: 10.6103/SHARE.w1.500, 10.6103/SHARE.w2.500, 10.6103/SHARE.w4.500, 10.6103/SHARE.w5.500), the studies in chapters 4 and 5 are based on release 6.0.0 (DOIs: 10.6103/SHARE.w1.600, 10.6103/SHARE.w2.600, 10.6103/SHARE.w4.600, 10.6103/SHARE.w5.600, 10.6103/SHARE.w6.600), see Börsch-Supan et al. (2013) for methodological details. The SHARE data collection has been primarily funded by the European Commission through FP5 (QLK6-CT-2001-00360), FP6 (SHARE-I3: RII-CT-2006-062193, COMPARE: CIT5-CT-2005-028857, SHARELIFE: CIT4-CT-2006-028812) and FP7 (SHARE-PREP: N°211909, SHARE-LEAP: N°227822, SHARE M4: N°261982). Additional funding from the German Ministry of Education and Research, the Max Planck Society for the Advancement of Science, the U.S. National Institute on Aging (U01\_AG09740-13S2, P01\_AG005842, P01\_AG08291, P30\_AG12815, R21\_AG025169, Y1-AG-4553-01, IAG\_BSR06-11, OGHA\_04-064, HHSN271201300071C) and from various national funding sources is gratefully acknowledged (see [www.share-project.org](http://www.share-project.org)).

## 1.5 Migrants in SHARE

in the fourth chapter includes the first interview of each respondent from all regular panel waves that were available at the time of analysis (i.e., waves 1, 2, 4, 5, 6). In the fifth chapter, I analyze a panel sample constructed with waves 5 and 6.

Contextual data on migrant integration policies are used in chapter 3. Among other policy areas, the Migrant Integration Policy Index (MIPEX) measures the conditions for family reunification across 38 countries including all EU countries (Huddleston, Bilgili, Joki, & Vankova, 2015). The reason for the inclusion of MIPEX data is that family reunion conditions are seemingly associated with the subjective well-being and integration of migrants.

In chapter 5, which is on the impact of the European refugee crisis on natives' SWB, I include data from Eurostat to obtain the number of asylum seekers per month as an approximation for the monthly refugee inflow (Eurostat, 2017). Apart from that, I draw on OECD data to control for the economic situation in Europe at that time (OECD, 2017). This chapter also provides a country classification based on secondary content analyses about the way refugees were presented in the media. The classification of national media coverage tendencies is brought into relationship with respondents' SWB levels.

This work employs two slightly different measures of SWB: CASP and life satisfaction. SHARE contains an abridged version of the CASP-19 index that encompasses 12 out of originally 19 items by reducing each of the domains to the three strongest items. In order to do so, the statistical analysis used to produce the original 19 item scale was replicated (von dem Knesebeck, Hyde, Higgs, Kupfer, & Siegrist, 2005). The score used as dependent variable is the sum of all 12 items. After transformation, the score yields a minimum value of 0 and a maximum value of 36.

The second indicator for SWB is measured by the Satisfaction with life scale (SWLS). It is a single item measure based on the OECD Better Life index (OECD, 2013) that asks respondents to rate their overall satisfaction with life on a scale from 0 to 10, with 0 meaning completely dissatisfied and 10 completely satisfied with life (see also Diener et al., 1985). The question wording in SHARE is: "On a scale from 0 to 10 where 0 means completely dissatisfied and 10 means completely satisfied, how satisfied are you with your life?"

## 1.5 Migrants in SHARE

Even though SHARE is not a migrant survey, it has two advantages when studying migration. First, due to the variety of countries and the large amount of respondents, migrants can

be compared to both natives in the destination and stayers in the origin country. Second, migrants' long duration of stay allows for studying the long-term impact of migration. In SHARE wave 5, the migrant sample comprised about 7,500 or 12 percent first-generation migrants across all participating countries. Out of these, about 70 percent possessed the citizenship of the country of residence. The numbers may vary slightly by wave. Migration background can be defined according to generational status, citizenship status, and country of origin. Generational status relates to whether the respondents or their parents migrated. From wave 5 on, it can be distinguished between natives, first-generation, and second-generation migrants. First-generation migrants are respondents who were born abroad; second-generation respondents are respondents who were born in the destination country but whose ancestors were born abroad. For the purpose of my analyses, the info about the second generation was only applied in chapter 2. In future research, this information could be exploited to examine different pathways of assimilation (see Portes & Rumbaut, 2001; Rumbaut, 2004). Regarding citizenship status and also starting with wave 5, it can be distinguished between those who have citizenship since birth, those who became naturalized, and those without citizenship of the survey country. In this work, citizenship information is included as a control variable in chapters 2 and 3. Finally, migrants can be classified according to their country of origin. This information is especially useful in chapters 3 and 4 to detect origin effects.

It is debatable which definition of migrant should be used in migration research. By relying on citizenship information only, researchers might ignore all people who have the citizenship of the country of residence but originate from another country and therefore have another cultural background. In addition, foreign citizenship does not necessarily imply that a person actually crossed borders (Razum & Spallek, 2009). Since the majority of all migrants in the SHARE sample possess the citizenship of their country of residence, the definition of migrant in this work is based on the country of birth. For a clearer distinction of natives, information on country of birth and citizenship is used (i.e., born in the country of interview and having its citizenship).

In general, there are different types of migrants that should be distinguished: economic, voluntary, involuntary, and forced migrants (i.e., refugees). It can be assumed that the migrant population in SHARE is comprised of primarily economic and voluntary migrants because they speak the survey language. This raises the problem of selectivity (see next paragraph). By looking at the historical context of specific destination and origin countries, it might be possible to infer by what motives certain immigrant groups were driven. For in-



stance, it is likely that Italian, Turkish, or Yugoslavian respondents who were born during or after World War II were “Gastarbeiter” in Germany (i.e., economic migrants). Czech and Polish migrants in Germany and Austria who were born before the 1950s are probably expelled ethnic Germans (i.e., forced migrants, “Aussiedler”). Depending on the research question, forced migrants might have to be examined separately or excluded from the sample. While they are omitted in chapter 4, chapter 5 specifically revolves around large-scale immigration by forced migrants or refugees. Finally, involuntary migrants present a challenge in countries that had territorial shifts. For instance, the Eastern European transformation states (Czech Republic, Estonia) are the consequences of the split of Czechoslovakia into the Czech Republic and Slovakia and the independence of Estonia. Migration research can result in high proportions of migrants in such countries when migrant status is defined solely as having a different country of birth. Since these countries would require separate analyses, they were excluded in chapter 3.

The problem of a potential selection bias in migrant samples is hard to tackle. Chapter 2 addresses this issue briefly. Assuming that migrants with low socioeconomic status are likely to be excluded from the survey due to language problems, my co-authors and I draw on paradata to examine whether low-status migrant households are underrepresented. Our results suggest that underrepresentation of low-status households seems more pronounced among migrants, but the number of excluded households is vanishingly small.

### **1.6 Research Design and Methods**

The structure of my dissertation is based on exploiting outcome variation of different comparison groups across different national contexts (i.e., migrant-native differences; migrant-stayer differences; natives facing immigration). In all chapters, my focus is on respondents aged 50 and older. All analyses are based on data from SHARE. The methods applied are grounded in my research interests, underlying assumptions of the models, and the availability of data. Since one of the cornerstones of this work is the cross-national perspective, pooled cross-sectional data was preferred over panel data in many cases—for the most part, to maximize the number of observations and countries. If the number of groups (*here*: countries) is limited to about ten and not random, the accuracy of multilevel models can be questioned (Paccagnella, 2011). For this reason I modeled country heterogeneity by using country dummies. The overview in Table 1.1 illustrates the research design of each of the following chapters.

Table 1.1: Research design

Chapter 2	Title	Growing old abroad: Social and material deprivation among first- and second-generation migrants in Europe
	Research question	<ul style="list-style-type: none"> <li>- Is there a selection bias in the migrant population in SHARE?</li> <li>- To what extent are first- and second generation migrants deprived socially and materially?</li> </ul>
	Outcome variable	SWB-constraining factors measured by social and material deprivation index
	Focus group	Migrants and natives
	Theoretical concept	Classic assimilation
	Data	SHARE wave 5 (15 countries), paradata on respondents' housing
	Method	Logistic regression, cross-section
Chapter 3	Title	Differences in subjective well-being between older migrants and natives in Europe
	Research question	<ul style="list-style-type: none"> <li>- Are there any differences in SWB between migrants and natives?</li> <li>- Which individual factors play a decisive role in reducing potential group disparities?</li> <li>- To which extent are the country differences in the immigrant-native gap associated with structural factors (i.e., different family reunion policies)?</li> </ul>
	Outcome variable	SWB measured by CASP index
	Focus group	Migrants and natives
	Theoretical concept	Social Production Function Theory, "Capabilities"
	Data	SHARE waves 1, 2, 4, 5 (11 countries), MIPEX data
	Method	Multivariate random effects regression, pooled cross-section
Chapter 4	Title	Does migration pay off in the long run? Income and subjective well-being of Eastern European migrants aged 50+
	Research question	<ul style="list-style-type: none"> <li>- How large are the income and well-being disparities of older and settled migrants compared to their counterparts in the places of origin and destination?</li> <li>- What is the connection between the relative income situation of migrants and potential SWB gains through migration?</li> </ul>
	Outcome variable	SWB measured by CASP index
	Focus group	Migrants, natives, and stayers
	Theoretical concept	Social Production Function Theory, model of migration, adaptation/habituation, reference points
	Data	SHARE waves 1, 2, 4, 5, 6 (first observation per respondent; 5 countries)
	Method	Propensity score matching, linear regression, cross-section
Chapter 5	Title	The impact of the European refugee crisis on the well-being of older natives – A matter of perception?
	Research question	<ul style="list-style-type: none"> <li>- How large was the impact of the immigrant influx caused by the European refugee crisis in 2015 on older people's well-being?</li> <li>- In what way were respondents' SWB levels associated with domestic media coverage?</li> </ul>
	Outcome variable	SWB measured by Satisfaction with Life Scale
	Focus group	Natives
	Theoretical concept	Set-Point Theory, Social Production Function Theory, media framing
	Data	SHARE waves 5, 6 (10 countries); Eurostat migrant data; OECD economic data; secondary content analyses on national media coverage
	Method	POLS-based difference-in-differences regression, longitudinal

Note: Chapters 2 to 4 were written in co-authorship. Chapter 5 is single-authored.

In chapters 2 and 3, my co-authors and I conduct a classical between-comparison. We apply a double-comparative design by comparing immigrants from several origin countries across several destination countries using natives as reference group. This design serves to disentangle origin and destination effects (Huijts & Kraaykamp, 2012). The focus in both chapters is on destination effects.

The second chapter is of explorative character. It provides a first insight into migration research with SHARE and we address selectivity issues with the help of paradata. Apart from that, we draw on indicators of social and material deprivation to examine if restrictions in terms of financial resources, social connectedness, and access to basic services constrain the well-being of older migrants. We perform logistic regression models to examine outcome differences between first- and second-generation migrants and natives.

Building on the analyses of the previous chapter, the third chapter examines immigrant-native differences with respect to our target dependent variable: subjective well-being. We use multivariate random effects regression models and account for influential factors at the macrolevel by using data from MIPEX. We consider this as the most appropriate method because our aim is to identify group disparities and because we include group-specific growth curves.

The fourth chapter revolves around points of reference. My co-author and I conduct a between-comparison with Eastern migrants as a more specific migrant group that has clear SWB disadvantages compared to natives. We apply propensity score matching because we are faced with a small number of migrant cases. In contrast to its original purpose, the propensity score is used to guarantee an equal distribution of all observed covariates between our comparison groups. We look at the long-term gains from migration of one immigrant group across different countries. We use stayers as the main reference group, but also include natives to allow for a better interpretation of the results.

The fifth and final chapter makes a change in focus group. The goal is to look at the impact of large-scale immigration on the SWB of the native population across Europe. I consider the European refugee crisis in 2015 as an external event that affected respondents' SWB levels. Difference-in-differences is the most suitable approach for analyzing the outcome change of respondents from before to during the event. Additional data sources are from Eurostat and OECD. Apart from that, I draw on secondary content analyses about the media coverage of the refugee crisis.

## **1.7 Results: Summary of Chapters**

The next section provides a short summary and the main results of the analyses conducted in each chapter.

### **Chapter 2: Growing Old Abroad: Social and Material Deprivation among First- and Second Generation Migrants in Europe**

The second chapter in this dissertation gives a first insight into migration research with SHARE and presents question items on respondents' migration background that were introduced in SHARE wave 5. Apart from that, my co-authors and I examine potential selection of the migrant population drawing on paradata that was collected during the contact stage of the interview. We find that non-participant households due to language problems (most likely migrants) are slightly selective, but the proportion is very small. Finally, we explore the extent of deprivation among first- and second-generation migrants compared to the native population. For this purpose, we employ indices of material and social deprivation that are closely linked with respondents' SWB. Although there is substantial heterogeneity among migrants within each country and across countries, we find a common pattern that is in line with empirical findings formulated in the classic assimilation approach. First-generation migrants are more deprived on both indicators than the second generation. Deprivation is more pronounced in the material dimension.

### **Chapter 3: Differences in Subjective Well-Being between Older Migrants and Natives in Europe**

In the third chapter, my co-author and I examine disparities in SWB between older migrants and natives across several European countries. SWB is negatively correlated with social and material deprivation. Our results show a significant SWB gap between migrants and non-migrants that diminishes with increasing age. While migrants from Northern and Central Europe have similar SWB levels as natives, Southern European, Eastern European, and Non-European migrants have significantly lower levels of SWB than the native population. The immigrant-native gap becomes smaller but remains significant after controlling for socio-demographic characteristics and health, the financial situation, citizenship, age at migration, and length of residence. Additionally, we find that the size of the SWB gap varies largely across countries. Current family reunion policies as measured by the Migrant Integration Policy Index (MIPEX) correlate with these country differences. The immigrant-native gap is

bigger in countries with restrictive and smaller in countries with open policies. These results indicate that migrants' SWB and social integration can be improved by fostering integrative family reunion policies.

#### **Chapter 4: Does Migration Pay Off in the Long Run? Income and Subjective Well-Being of Eastern European Migrants Aged 50+**

Since little is known about how migrants have fared many years after migration, the fourth chapter examines whether migration from Eastern Europe (Czech Republic and Poland) to Western Europe (Austria, Germany, and Sweden) pays off in the long run—both in terms of income and subjective well-being (SWB). My co-author and I apply propensity score matching and linear regression analysis for robustness checks. Migrants' advanced age and long duration of stay allow for studying the long-term consequences of migration. Our findings indicate that compared to stayers with similar characteristics, migrants have significant income gains at all destinations. However, these income gains do not seem to translate into equivalent SWB gains in all countries. In contrast to Austria and Germany, no significant SWB gain of migrants compared to stayers is observed in Sweden. This might be related to another mechanism: the relative income position. We observe significant SWB gains solely among migrants whose income is better than the average income of stayers and close to or better than the average income of natives. Therefore, achieving a similar income position relative to natives might play a decisive role in determining good well-being of migrants in the long run—and in narrowing the SWB gap between migrants and natives.

#### **Chapter 5: The Impact of the European Refugee Crisis on the Well-Being of Older Natives – A Matter of Perception?**

The last chapter examines the impact of the European refugee crisis in 2015 on the subjective well-being (SWB) of older natives in 10 European countries. I consider the refugee influx as an exogenous event affecting people's SWB. It is defined by the period of its highest media attention, which coincided with the largest refugee numbers. SWB is a useful measure to estimate the real and perceived impact of immigration on personal welfare because it might represent people's perceptions and attitudes about the newcomers. Since media coverage can reflect societal perceptions, SWB could be associated with national media coverage. I use difference-in-differences to estimate the average treatment effect of the treated (i.e., respondents who were interviewed during the migrant crisis compared to those who were interviewed before). My findings indicate that the number of refugees has an adverse, but insignificant,

influence on SWB. However, by drawing on media attention, I detect heterogeneous significant effects for treated respondents that are associated with the way the refugee influx was perceived and covered by domestic media. Positive effects can be associated with “favorable”, negative effects with “unfavorable”, and no effects with a “mixed” way of media reporting. It is important to account for older people’s welfare in the event of large refugee inflows because changes in SWB might indicate changes in their voting behavior and attitudes towards immigrants.

### **1.8 Conclusion**

Well-being affects health, productivity, and sociability (J. E. De Neve et al., 2013). This is especially important in later life and among minority groups such as migrants. Therefore, inequalities in well-being have been a challenge for policy-makers in many societies. A growing body of literature has addressed this challenge empirically. Many studies have been conducted in the economic field with indicators related to objective well-being such as wages or labor market participation. They refer mostly to group differences among younger age groups. However, extant research on migration and subjective well-being with the focus on older age groups is scarce, at least within Europe. Subjective well-being measures have the advantage that they are also observable for the not economically active population in later life. In this work, I applied SWB measures in various ways. In immigrant-native comparisons, I used SWB as an indicator for migrants’ integration. In comparison to stayers, SWB outcomes reflected the (long-term) benefits of migration. Changes in SWB levels served to estimate the perceived impact of immigration on the welfare of the native population.

My goal was to examine well-being inequalities via the social integration and long-term gains of migration of older and settled migrants. I accounted for both micro- and macrolevel factors and their relative position in the origin and destination countries. Apart from that, I explored the impact of immigration on older natives’ well-being levels during the European refugee crisis. Compared to many other studies, my analyses were based on a cross-national perspective by drawing on data from SHARE.

My findings suggest that compared to the native population 50+, migrants are more deprived socially and even more materially. As both forms of deprivation are associated with well-being, the same trend could be seen with respect to SWB. Individual-specific factors reduce the immigrant-native gap in SWB, especially respondents’ financial situation, health, and migration-specific variables (origin, citizenship, age at migration, length of residence in

the destination country). The group differences diminish with increasing age, most likely because the oldest old suffer from similar (health) problems. The heterogeneity of contextual factors played an important role as well. By using the example of migrant integration policies, my co-author and I observed a pattern that suggests an association between openness of policy context and reduction in the SWB gap. Considering lower SWB of migrants compared to the native population, we also investigated whether migrants from less wealthier to wealthier countries have long-term benefits from migration compared to stayers. While we found significant income gains among Eastern European migrants in our sample, their SWB gains varied across destinations. This variation seems to be associated with relative income. We only observed long-term gains in SWB among migrants whose income levels are similar to or better than the ones of natives. My analysis of the impact of large-scale immigration on the SWB of natives showed that an event like the European refugee crisis can have a significant impact, at least in the short-term. While this impact became less evident via actual refugee numbers, it was reflected in the way the event was perceived and conveyed by national media.

Besides its contributions and findings, this work has limitations. The migrant population in SHARE is special because most migrants have resided in their destination countries for a long time and speak the survey language proficiently. Considering that language skills are a major source of social integration, the SWB levels of the migrants in SHARE might be biased upwards (Gordon, 1964).

The causal link/direction between migration and SWB remains unclear. Particularly in my cross-sectional analyses, endogeneity was a potential issue. The composition of migrants and non-migrants might have been different from the start. Although most migrants have resided for a long time in their destinations, it remains unclear if migrants with higher or lower SWB levels were selected into migration or if their SWB levels are the result from migration. In the chapter about the refugee crisis, the geographic sorting of refugees was not completely random.

Apart from that, unobserved return migration might be a potential source of bias. Individuals who have a tendency to go back to their country of origin could be happier or unhappier than those who remain in the country of destination (Bartram, 2013b; Baykara-Krumme & Platt, 2016; Mara & Landesmann, 2013). Both alternatives could have biased the results up or downwards.

Another issue is the cultural embeddedness of answer behavior to questions on well-being. The applied measures—CASP and especially life satisfaction—are idiosyncratic and might also be culture-biased. Voicu and Vasile (2014) found that the measured well-being of migrants is a mixture of influences from both the origin and destination country's culture. A potential cultural bias among migrants or natives in different countries could only be handled by applying fixed effects panel regressions. Since three out of four of my analyses focus on a between comparison, this method could not be implemented.

Overall, the results of this work have the following implications for migration and well-being in later life. Even though certain migrant groups fare better than their counterparts at home (at least in economic terms), most migrants do not reach the SWB levels of natives unless they originate from a Northern or Central European country. Therefore, prospective migrants might be mistaken to believe that moving to another country would improve their quality of life and well-being in the long run (see also Bartram, 2013a). An exception may be those who achieve a similar economic position relative to their native counterparts and those who reside in countries with an open and integrative immigration policy context, particularly one that sponsors family reunification. This finding might be of special importance for debates on immigration control and integration policies.

In brief and in line with many other studies (e.g., Amit & Litwin, 2010; Bartram, 2011; Kämpfer, 2014; Lovo, 2014; Nikolova & Graham, 2014), material wealth is a key influencing factor to reduce inequalities in well-being. However, non-pecuniary factors such as health, migration-specific variables, and institutional settings in the destination context play an important role as well. With respect to natives, research has shown that immigration has an impact on their wages or labor market outcomes (e.g., Borjas, 2003; Card, 2001; Dustmann et al., 2005; Ottaviano & Peri, 2012). But beyond the objective dimension of welfare, immigration can also affect cognitive and affective processes that are reflected in subjective measures of well-being (see also Akay et al., 2014). This implies that apart from focusing on the economic welfare of migrants and natives, policy responses should be tailored towards non-economic and more subjective aspects of well-being. Researchers are advised to make extended use of health and well-being-related outcome measures as well as contextual data because they become increasingly important in later life. This also includes factors that were not/could not be accounted for in this work such as personality-related characteristics and social networks at the individual level or culture-specific features and the historical background of countries at the contextual level. Future research could be dedicated to subsamples



such as specific migrant groups and the second generation; retired or sick people; specific countries or regions; or different SWB trends over the life course.

To conclude, political actions to reduce well-being inequalities and foster migrants' long-term integration should be based on providing equal access to economic resources (e.g., wages, labor market) and health care provisions; streamlining regulations with respect to naturalization and citizenship regulations; proficient handling of asylum applications and integration measures; and sponsoring family reunification. In the end, increased well-being levels for all social and age groups might relieve national social security systems.

Regarding the native population, decision makers are advised to present a counterbalance against an increase in anti-immigrant attitudes, especially among the more skeptical older age groups (Ivlevs & Veliziotis, 2015). The results of chapter 5 should give a signal to account for the connection between migration and personal welfare and the role of the media. SWB can assess the real and perceived impact of immigration and represent people's concerns and expectations as well as their perceptions, sentiments, and attitudes about immigrants.

We are in need of an objective and critical media coverage that gives a voice to both natives and immigrants; transparent and fair immigration policies that consider the needs and opinions of citizens and those who are provided refuge and/or want to become citizens; and equal treatment in other social, political, and economic fields in which native and foreign people come together and compete, such as labor market, health care, or housing. All these factors might help increase our quality of life and personal well-being and sponsor social cohesion.

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## 2 Growing Old Abroad: Social and Material Deprivation among First- and Second Generation Migrants in Europe

This paper was published in Börsch-Supan, Kneip, Litwin, Myck, and Weber (2015) and was written in co-authorship with Christian Hunkler, Thorsten Kneip, and Morten Schuth. References to other chapters and figure colors were adapted to this dissertation.

### 2.1 Introduction

Over the past 100 years, most European countries have experienced a considerable influx of immigrants from a wide range of countries. As a result, persons with a migration background have become an increasingly important part of society, both culturally and economically. Research on the social integration of young migrants in Europe is already fairly widespread, particularly on such topics as educational attainment and labour market placement. Little is known, on the other hand, about older migrants. Based upon the data from the 5th wave of SHARE, we know that about 21 percent of the respondents aged 50 and older either migrated themselves or had at least one parent who migrated. Given the growing representation of people with a migration background within the ageing populations of Europe, studying this particular segment of the population is more and more relevant.

In previous waves of SHARE, respondents were asked where they were born and when they migrated. This facilitated the identification of first-generation migrants, i.e. those who relocated themselves. In order to identify second-generation migrants, that is, persons who were born in the receiving country but whose parents were born elsewhere, SHARE Wave 5 introduced new questions on the country of birth of the respondent's mother and father. The Wave 5 questionnaire also asked whether the respondent had the survey country's citizenship since birth or, if not, in what year citizenship was obtained. Using these new questions, we report in the *first* part of this chapter on the state of migration and naturalisation among the members of the SHARE sample.

Studying older migrants in a general population survey like SHARE raises the question as to whether such inquiry is, indeed, reliable or biased due to selective participation among potential respondents. Language may be a barrier to participation among migrants (the SHARE survey is administered in all official languages of each country and, in addition, in languages spoken by a considerable proportion of the population). Given this concern, we present in the *second part* of the chapter analyses that examine the coverage of the migrant population in SHARE and the possibility of selective participation. Toward this end we uti-

lize information that was collected during the preliminary contact stage of the SHARE interview.

In the *third* part of the chapter, we compare the extent of deprivation among first- and second-generation migrants in relation to the respective native 50+ populations in each SHARE country. For this purpose, we employ the indices for material and social deprivation that are described in detail in chapters 5 and 6 in Börsch-Supan et al. (2015). Although there is substantial heterogeneity among migrants within each country and across countries, we nevertheless expect to find common patterns, i.e., long-lasting effects of the migration experience. Toward this end, we examine migrant status in relation to deprivation controlling for socioeconomic status and other sources of heterogeneity.

## 2.2 Identification and Classification of Migration Background in SHARE

We define migration background according to three distinct – though empirically often overlapping – dimensions. The first dimension concerns the *generational status* of the respondents, namely, whether the respondents or their parents migrated. This information is obtained by asking the respondents about their own and their parents' country of birth and relating it to their current country of residence. In the current analysis we focus on this dimension and distinguish between natives, first-generation and second-generation migrants. The second dimension reflects the respondent's *citizenship status* in the survey country. SHARE Wave 5 allows distinguishing those who have citizenship in the survey country since birth, those who became naturalised and those do not have citizenship in the survey country. Finally, migrants differ according to the *country of origin*, as a third dimension. Specific combinations of sending and receiving countries can be thought of as specific contexts with distinct effects on various outcomes.

Overall, 13,089 SHARE Wave 5 respondents (21.4%) report a migration background. Only for about 1 percent (n=575) of respondents it was impossible to obtain sufficient information about their migration background. 5,610 respondents (42.9%) are second-generation migrants, i.e. one or both of their parents were born in a different country. Moreover, about 90 percent of the Wave 5 respondents are citizens by birth. A bit more than 5 percent obtained their citizenship in the current country of residence by naturalisation. About 4 percent of the sample population are non-citizens, i.e. they do not have citizenship in the survey country.

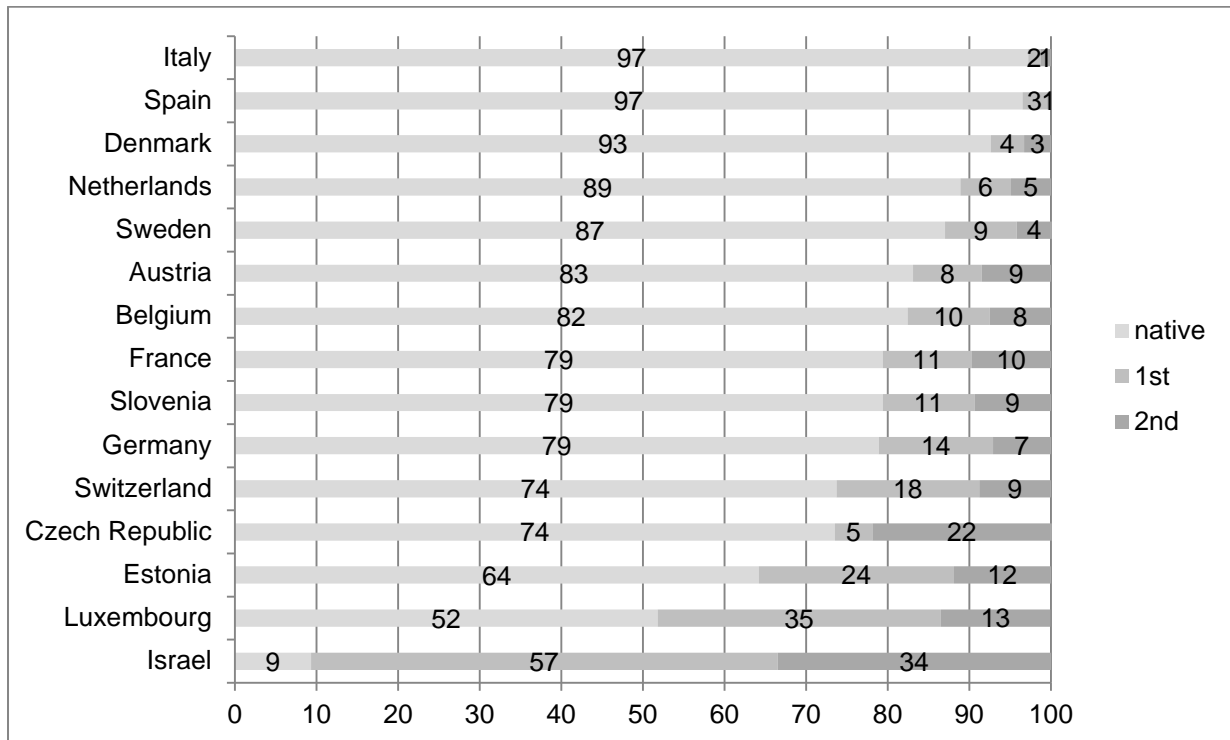
There is large variation between the countries with respect to the size of the migrant population (see Figure 2.1). We can roughly distinguish three different groups of countries in terms of immigration. First, the *Northern and Western European* countries (Sweden, Denmark, the Netherlands, Belgium, France, Germany, Austria, Spain, and Italy) have rather strict immigration rules and nationality laws. Here the proportion of first- and second-generation migrants covers a range from about 3 percent in Italy to 21 percent in Germany. Note that in Germany this includes ethnic German repatriates.

The second group of countries is made up of the *Eastern European transformation states* (Czech Republic, Estonia, and Slovenia). The consequences of the independence of Estonia and the split of Czechoslovakia into the Czech Republic and Slovakia results in high proportions of migrants in these countries, when generational status is defined as having a *different* country of birth. For example, in the Czech Republic more than two thirds of all second-generation migrants describe themselves as Czechoslovakians. The effect is even stronger in Estonia, where the majority of all first-generation migrants and half of all second-generation migrants are of Russian descent. It is debatable to classify these respondents as migrants. The majority, especially in the Czech Republic, did not even have to move to the next town to technically be classified as a migrant. Since this situation applies to some 2,200 respondents in the two countries, we add a binary indicator for these special cases in the multivariate analyses that are reported on later in the chapter.

The third group can best be described as *special cases*: Luxembourg and Switzerland experienced a constant influx of labour migrants in the last two decades, with Luxembourg having the highest rate of non-citizens in the 50 plus population (about 27%). Finally, Israel is a country the population of which originates from several migration waves since the founding of the state in 1948. Compared to all European countries in SHARE Wave 5, Israel has the highest share of naturalisations (about 55%). It also has the highest number of second-generation immigrants (about 34%).

### 2.3 Coverage of the Migrant Population

Figure 2.1: Generational status by country (percent)



Source: SHARE Wave 5 release 0

### 2.3 Coverage of the Migrant Population

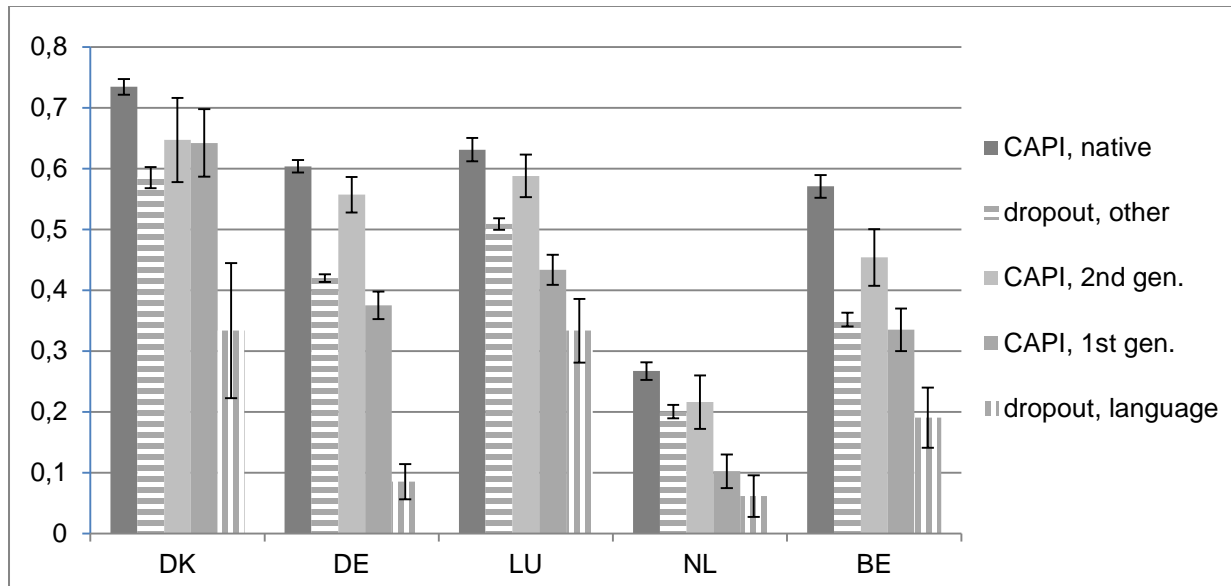
As noted, SHARE restricts its sample to respondents who are able to speak the majority language(s) in which the questionnaire is administered in each country. This practice may not only exclude migrants, but it might well lead to underrepresentation of *specific* migrants in terms of their socioeconomic characteristics. Since fluency in the dominant language is important for the labour market integration of migrants (e.g., Rumbaut, 1997) one would expect that excluding persons with language barriers will particularly affect migrants of low socioeconomic status. In order to estimate the extent of this potential language bias, we examined data that were collected in the contact phase of the survey. These data, which also include information on households that did not answer the questionnaire, contain information on the type of building the (potential) respondent lives in. The retrieved information can be used as an indicator for socioeconomic status.

Figure 2.2 shows the percentage of households living in a “free standing 1 or 2 family house”, which is the housing category likely reflecting a high socioeconomic status. We limit this part of the analysis to Germany, the Netherlands, Denmark, Belgium, and Luxembourg, i.e., the countries that added new samples of households. We only consider samples in countries with at least 5 non-participants due to language barriers (DE (95), NL (49), DK (21), BE

### 2.3 Coverage of the Migrant Population

(69), LU (81)). The dark grey bars show the percentage of natives living in a high status house type; the two lighter grey bars show the percentages for second- and first-generation migrants, respectively. The horizontally striped bar shows the same information among households that were not interviewed for reasons other than language barriers. Note that this group may also contain migrants. The vertically striped bars represent the households that were defined as ineligible for the interview due to insufficient language skills.

Figure 2.2: Percentage of households living in free standing 1 or 2 family houses by sample



Source: SHARE Wave 5 release 0

Comparing the vertically striped and dark grey bars in Figure 2.2, we see that non-participant households due to language barriers are significantly less likely to live in a “1 or 2 family house” than the average respondent. More importantly, when comparing the non-participants due to language barriers to those migrants who were interviewed, their housing type indicates significantly lower status (with the exception of first-generation migrants in the Netherlands). This shows that non-participants on the basis of language are a selective group of households with regard to housing status and, thus, probably also in terms of socioeconomic status when compared to migrants.

However, Figure 2.2 also reveals that the whole sample is selective in this respect: In all countries included in this analysis, respondents who participated in the survey (the dark grey bars) live significantly more often in “1 or 2 family houses” than those respondents from households that did not participate for other reasons (the horizontally striped bars). In addition, the vertically-striped bars reflect only a very small fraction of the newly sampled households (DE: 0.88%; NL 1.62%; DK: 0.66%; BE 1.98%; LU 1.85%). Although, underrepresent-

tation of low-status households seems more pronounced among migrants, the number of households actually excluded is so small that it hardly influences the results. Thus, even though SHARE was not designed to specifically survey migrants, we conclude that it is a viable dataset for analysing migrants aged 50 and older both within and across countries.

### **2.4 Generational Status and Deprivation**

To analyse the extent of deprivation among the migrant populations in the SHARE countries, we use the two multidimensional indices that were developed to measure material and social deprivation. They are explained in Börsch-Supan et al. (2015). The material deprivation index measures the extent of material hardships of households with respect to the affordability of basic needs (e.g., foods for a healthy diet, payment of heating costs, or purchase of glasses, etc.) and financial difficulties (e.g., in the payment of rent and mortgages or loans, etc.). The social deprivation index measures the extent to which individuals are limited in socio-culturally “normal” interaction (e.g., live in an area with providing a nearby pharmacy, etc.; and items like number of rooms per person, social participation, loneliness, etc.). We use the hedonic versions of both indexes and dichotomized them. Respondents with scores of below 0.3 on the index are considered as not deprived, and those scoring 0.3 and higher as deprived. The main reason to use 0.3 was that within each country and on each dimension this cut-off point is above the median of the distribution. Moreover it provides reasonably balanced overall and within-country distributions of the resulting binary indicators.

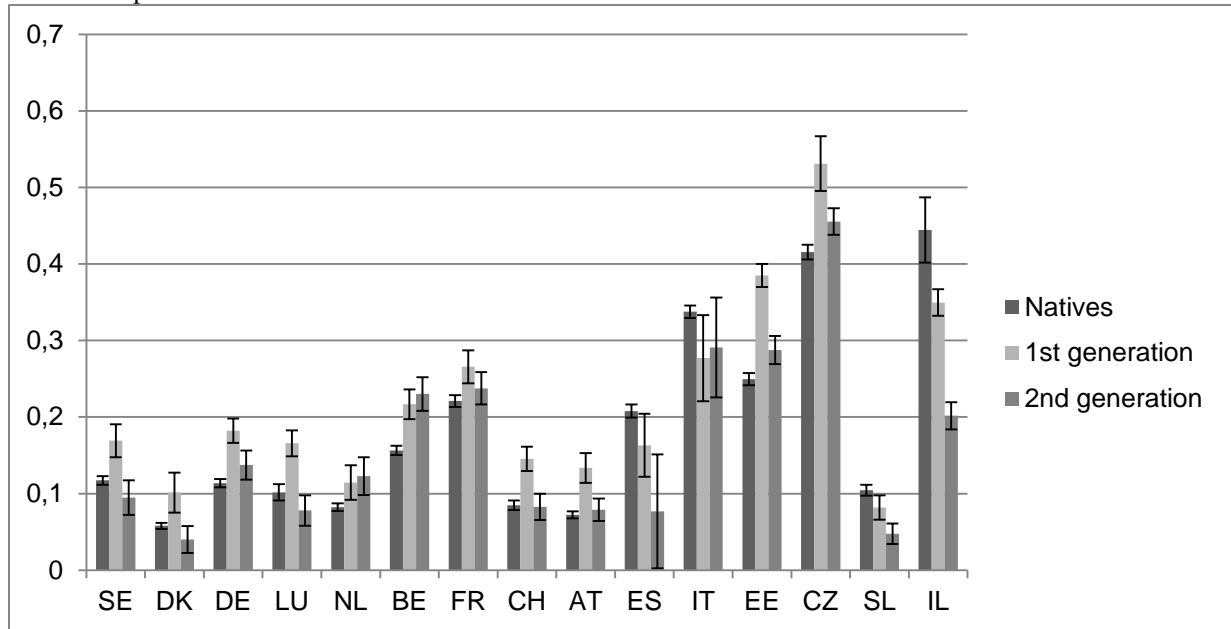
Figure 2.3 provides an overview of the proportion of respondents who live in households that are classified as socially or materially deprived according to our definition. Setting aside the overall country differences in the level of deprivation on both dimensions, the pattern with respect to generational status is surprisingly stable. First-generation migrants are significantly more often classified as deprived than native respondents. This is true on both the social and the material dimension, although the pattern is more pronounced for the latter. The second generation respondents in some countries score between the natives and the first generation on the material dimension while, in other countries, e.g., Spain or Luxembourg, they are hardly distinguishable from the natives. This pattern only applies to the material dimension. Regarding social deprivation, second-generation migrants are classified significantly less often as socially deprived in some countries, e.g., Slovenia and Spain, in some countries they score even higher than the first generation, e.g., Belgium and the Netherlands; and there are also several countries in which they seem very similar to the native respondents, e.g.,

## 2.4 Generational Status and Deprivation

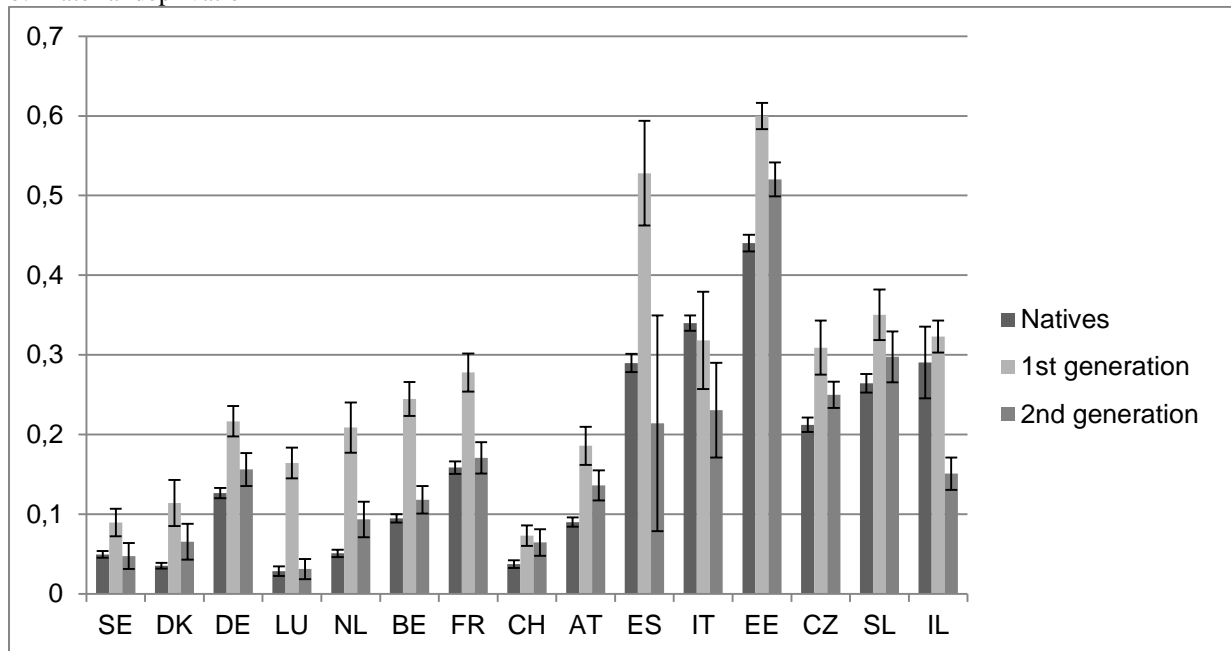
Switzerland and Austria. Respondents from Israel stand out especially on the social dimension. This reflects the low proportion of natives in that country, the concentration of the Arab minority among the natives, and the overall high deprivation scores for Israel.

Figure 2.3: Social and material deprivation by country and generational status (percentages)

a: Social deprivation



b: Material deprivation



Note: Marginal effects and standard errors estimated from logistic regression models with household level clustered robust standard errors (social deprivation: N=54,561; material deprivation: N=54,715). The models include binary country and generation indicators and all possible interactions. Source: SHARE Wave 5 release 0

Several processes may cause the group and country differences just described and also generate the stable generational pattern in which the first generation usually stands out and

the second generation scores much more like the natives. The most prominent explanation for the pattern is that immigrants integrate into the receiving society over time and we observe this in the SHARE sample when comparing the first and second generations (e.g., Rumbaut, 1997). The same pattern can be caused, however, by heterogeneity in the influx of migrants over time. On average the first-generation has spent less time in the receiving country than the second generation. Differences in average education or other resources may not only explain the generational pattern observed but also the differences between countries. For example, there is considerable heterogeneity with respect to the country of origin of migrants among the SHARE countries: While in Sweden the majority of first- and second-generation migrants originate from Finland, in France most first-generation immigrants are from Algeria and Morocco and most second-generation immigrants are from Italy and Spain. These country differences, and to a lesser extent the generational pattern, might be caused by variation in citizenship and naturalisation rules (e.g., Borjas, 1999; Euwals, Dagevos, Gijsberts, & Roodenburg, 2010). There is variation with respect to countries limiting the economic opportunities for non-nationals. Moreover, countries also differ with respect to who is eligible for naturalisation. In general, migrants from the second generation more often obtained their current country of residence's citizenship by birth or via naturalisation, which is probably the main reason why they score similarly to natives.

Using multivariate logistic regressions we examine the extent of social and material deprivation, taking into account the observed heterogeneity among migrant generations in the different countries. We control for basic demographics, i.e., age, household size, marital status, number of children and level of education. In addition, we hold citizenship status constant by distinguishing between having the receiving country's nationality since birth or by naturalisation versus those with foreign nationality. Finally, we add controls for health status. Figure 2.4 shows the average marginal effects for generational status based on the logistic regressions.

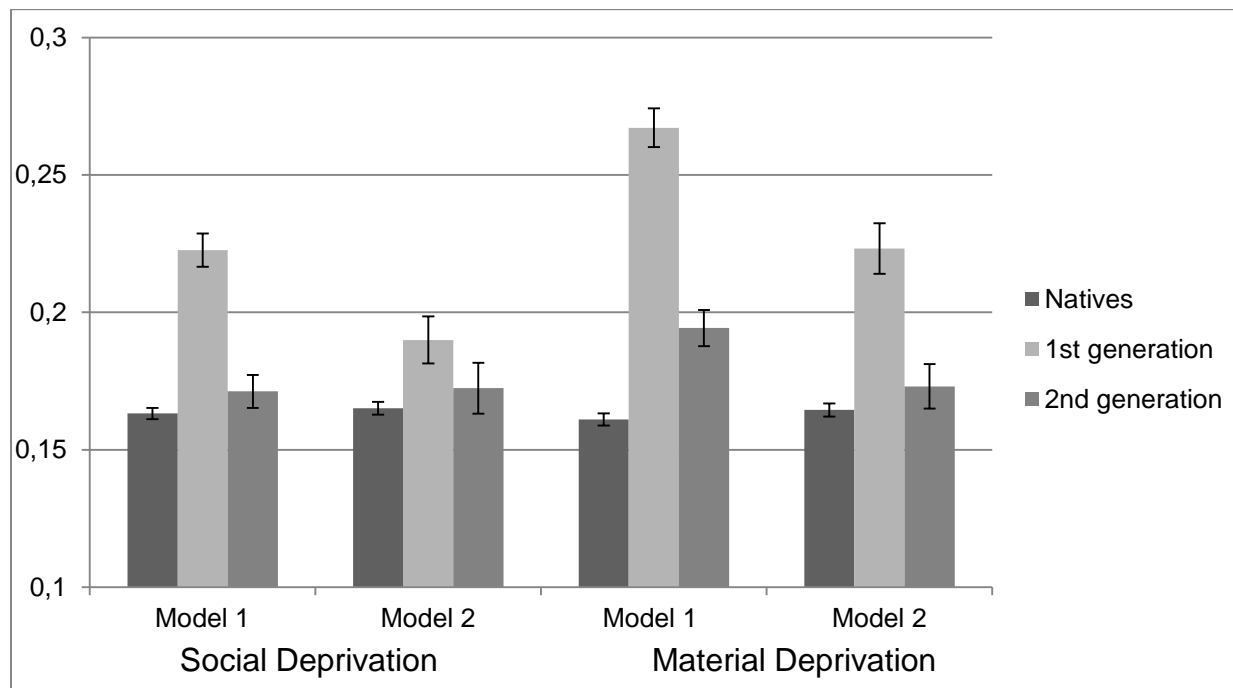
Model 1 is a summary of the descriptive country patterns shown in Figure 2.3, averaged across all the SHARE countries. As described above, the first migrant generation stands out in relation to social deprivation, while the effects for the second generation vary. The predicted margins based on Model 1 in Figure 2.4 show that, on average, the first generation scores significantly higher while the average effect for the second generation is similar to that of the natives. On the material dimension of deprivation, the generational pattern is more evident. Not only the first but also the second-generation migrants are significantly more of-



## 2.5 Summary

ten deprived than the natives on this dimension. In the second model for social and material deprivation (Model 2), we include the aforementioned controls. After adding these controls, the generational differences attenuate on both dimensions. This suggests that the first generation's disadvantages are partially explained by differences that we now control for. However, first-generation migrants still score significantly higher on both dimensions; with the disadvantages on the material indicator still being more pronounced. For the second generation, the differences relative to natives are now statistically insignificant on both dimensions.

Figure 2.4: Predictive margins of social and material deprivation



Note: Marginal effects and standard errors estimated from logistic regression models with household level clustered robust standard errors (social deprivation: N=48,749; material deprivation: N=48,779). Model 1 includes country and migration generation as well as an indicator for involuntary migration in Czech Republic and Estonia. Model 2 additionally includes citizenship status, gender, age, age2, household size, marital status, number of children, ISCED level of education, health (maximum grip strength and number of limitations with activities of daily living) and interactions of country and migration generation. Source: SHARE Wave 5 release 0

## 2.5 Summary

To sum up, we showed first that the new questions introduced in SHARE Wave 5 allow for an inclusive identification and classification of migration background in terms of generational as well as citizenship status. Moreover, there is no indication for the concern that SHARE respondents had problems reporting their parents' place of birth. Only in a very few cases were we unable to classify generational status.

Second, a potential concern with research on migrants based on a general population survey like SHARE is selective coverage of this specific population. Using data collected by

interviewers in the contact phase of the survey, we confirmed this concern to some degree, finding that the non-participants due to language barriers are a selective group of (most probably) migrants who are more likely to be disadvantaged in terms of housing status, and thus, also with respect to socioeconomic status. However, the number and proportion of non-participants due to language barriers in the Wave 5 baseline samples was very small, which indicates that SHARE can indeed be used for research questions targeting migrants.

Third, we compared natives and migrants on the social and material deprivation indexes introduced in this volume and found a robust generational pattern. First-generation migrants appear more frequently amongst the socially or materially deprived, while the second generation's disadvantages are smaller, overall. After controlling for socioeconomic confounders, as well as for citizenship status and health indicators, this generational pattern attenuates slightly. However, the proportion of first-generation migrants classified as deprived on both dimensions is still significantly higher than among the other groups. A second stable pattern that emerged from the analysis reveals that disadvantage is more pronounced on the material dimension. These two patterns are in line with the view that migrants integrate into the host country's society over time and from one generation to the next. In most SHARE countries, it seems that this assimilation process takes longer with regard to material deprivation as compared to social deprivation.

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### **3 Differences in Subjective Well-Being between Older Migrants and Natives in Europe**

This paper was published in the *Journal of Immigrant and Minority Health* and was written in co-authorship with Stefan Gruber.

#### **3.1 Background**

Demographic aging and international migration have transformed the European population structure significantly. Many people with migration background have resided in their destination countries for a long time and have become an integral part of society. Given the everlasting flows of migration in- and outside of Europe, the social integration of immigrants has become an important part of research.

A growing body of literature uses either physical/mental health- or well-being-related measures as indicators for social integration (Hadjar & Backes, 2013; Ladin & Reinhold, 2013; Donatella Lanari & Bussini, 2011; D. Lanari, Bussini, & Minelli, 2015; Levecque & Van Rossem, 2015; Malmusi, 2015; Sardadvar, 2015; Solé-Auró & Crimmins, 2008). Studies on the subjective well-being (SWB) of migrants in later life are scarce and the influence of the institutional conditions of receiving societies on migrants' SWB has hardly been accounted for. Most studies in this field focus on person-related characteristics. Apart from demographic features (such as gender and age) and migration-specific variables (like length of residence, language skills, and citizenship), they identify economic conditions, health status, social networks, and psychological factors as the main determinants of SWB (Amit & Litwin, 2010; Kämpfer, 2014; Tucci, Eisnecker, & Brücker, 2014). However, it is important to capture potential influences at the macrolevel as well, especially because immigration policies are very heterogeneous across Europe and because large debates on immigration control and integration policies have been on the political agenda in numerous countries. Yet, there is limited knowledge on how these policies affect the SWB of migrants, particularly in later life.

Conducting research on 63 countries, Bonini (2008) finds that 19 percent of the variation of SWB can be explained by contextual and 81 percent by individual-specific factors. Two recent studies detect a significant relationship of integration policies with migrants' self-reported health (Malmusi, 2015) and SWB (Hadjar & Backes, 2013). In the latter, Hadjar and Backes find evidence that the SWB gap between migrants and natives is larger in countries

with a high GDP and smaller in countries with rather inclusive immigrant integration policies as measured by the Migrant Integration Policy Index (MIPEX).

Our study extends this new strand of research on well-being-related differences between migrants and natives that combines micro- and macrolevel factors using data from the Survey of Health, Aging and Retirement in Europe (SHARE). We contribute to existing research by analyzing the SWB of *older* migrants as a group of increasing importance in the European population structure (Warnes, Friedrich, Kellaher, & Torres, 2004). As Amit and Litwin (2010) point out, the integration of older immigrants has not yet received adequate attention within the literature.

By running our analysis in a cross-national setting we are able to account for *institutional influences* at the macrolevel, thereby focusing on family reunion policies, which turned out to be most influential for SWB among all MIPEX policy areas. Apart from family reunification, the MIPEX also contains the policy areas labor market mobility, education, political participation, access to nationality, long-term residence, and anti-discrimination. As the association with SWB was rather weak for these policy areas, we restrict our analysis to family reunion policies. Especially older migrants who are or will be in need for care might benefit from policies that facilitate family reunification.

“(…) [S]ince the societal SWB level is an indicator of social integration (…)” (Hadjar & Backes, 2013, p. 646) we assume that integration is achieved once the SWB-levels of migrants and natives are similar (Bonini, 2008; Kämpfer, 2014; Tucci et al., 2014; Warnes et al., 2004). Our main research questions are 1) whether there are any differences in SWB among migrants in relation to the respective native 50+ populations in different European countries, 2) which individual factors play a decisive role in reducing potential group disparities, and 3) if differences in the immigrant-native gap between countries are associated with different family reunion policies.

### **3.2 Conceptual Framework**

The Social Production Function Theory holds that people’s well-being is a function of individual and structural resources and constraints. At the individual level, the most important ones are health, education, income, and social ties (Ormel, Lindenberg, Steverink, & Verbrugge, 1999). Since the integration process takes place over time and with increasing exposure to the host culture, immigrants’ length of residence in the destination country and their social connectedness have to be accounted for (Berry, Phinney, Sam, & Vedder, 2006;

Gordon, 1964). At the macrolevel, the social infrastructure, laws, regulations, and norms represent key resources and constraints (Ormel et al., 1999). Assimilation is a process in which laws and institutions play an important role in affecting immigrants' integration process. According to Sen's "Capabilities" approach, political and institutional settings limit and structure the opportunities of individuals (Sen, 1993). The Host Society Environment approach by Maxwell highlights that the geographic variation of integration outcomes depends on the legal situation of immigrants in the place of destination (Maxwell, 2010). Access to citizenship and political participation play a major role here. Apart from that, studies have shown that cultural and institutional characteristics inherent to the place of origin (e.g., language proximity to destination country, labor market regulations, education system, transferability of skills and certificates) are crucial for the integration process (Kämpfer, 2014; van Tubergen, Maas, & Flap, 2004).

Immigrant legislation in Europe is as diverse as its member states. Different policy contexts affect immigrants' quality of life in various ways and thus the extent to which they feel integrated into the host society (Hadjar & Backes, 2013). Migrants' SWB is likely to be afflicted in countries where institutional barriers to achieve social integration are considerably high. Particularly bringing the family together is a major factor promoting the subjective well-being and integration of migrants in their receiving societies (Strasser, Kraler, Bonjour, & Bilger, 2009). A person's feeling of comfort and security increases once the family members reside in one place. This is especially the case for older people who are in need of care and support. Among the above-mentioned policy areas, the MIPEX measures the conditions for family reunification across 38 countries including all EU countries. MIPEX is a collaborative study of 25 organizations that was started in 2004 and assigns scores from 0 to 100 for each policy area (Huddleston, Bilgili, Joki, & Vankova, 2015). High-scoring policy regimes promote the family's integration in terms of extensive eligibility for family members, manageable requirements for their kin, fairly secure residence status, and sufficient associated rights (e.g., equal access to schools, jobs, housing and social programs). Bureaucratic procedures are quick and free of charge. Low-scoring policy regimes are fairly selective and bureaucratic. They favor migrants with high incomes and stable jobs and implement relatively restrictive procedures for family members in terms of eligibility, conditions, security of status, or associated rights.

In our sample of 11 countries, the country with the highest MIPEX score regarding family reunion policies is Spain with an average value of 87 for the years 2007 to 2013. Families are

allowed to reunite once their sponsor can provide basic housing and legal income based on the general Spanish standards for families. Procedures are fast and more rights-based and secure than in any other country. Eligibility is granted to partners and was expanded to adult children in 2009. While Sweden (79), Belgium (75), and Italy (74) also have comparably high scores, Luxembourg (62), the Netherlands (59), Germany (58), and France (51) range in the middle of the MIPEX classification. Austria (49) and Switzerland (47) belong to the countries with the lowest scores. Only Denmark (36) falls short of them. These immigrants have to wait longer to reunite than in most other developed destination countries. The requirements are highly restrictive including a points-based system, an immigration test, and high fees. Additionally, adult children and parents can only reunite under exceptional circumstances (Efionayi, Niederberger, & Wanner, 2005; MIPEX, 2015; Oezcan, 2004).

Taking this into consideration, we anticipate the immigrant-native gap in SWB to be more pronounced in countries with restrictive family reunion policies (i.e., low MIPEX family reunion scores) and smaller in countries with more open policies (i.e., high MIPEX family reunion scores).

### **3.3 Methods**

This study uses waves 1, 2, 4, and 5 of SHARE (Börsch-Supan, 2016). SHARE was started in 2004 and is a multidisciplinary panel study on health, socioeconomic status, and social and family networks of respondents from 20 European countries plus Israel aged 50 or over (Börsch-Supan et al., 2013). The survey is administered biennially via computer-assisted personal interviews (CAPI). The overall sample comprises more than 120,000 individuals. In order to maintain the maximum number of observations per country, we restrict the sample to all regular SHARE waves and exclude wave 3, which is about respondents' life histories. We include all migrants (i.e., respondents born in a country other than the country of interview) and natives (i.e., respondents born in the country of interview and having its citizenship) aged 50 to 85. The observation numbers drop drastically after age 85. Furthermore, we keep all SHARE countries containing at least 100 individual migrants: Austria (AT), Belgium (BE), Switzerland (CH), Germany (DE), Denmark (DK), Spain (ES), France (FR), Italy (IT), Luxembourg (LU), Netherlands (NL), and Sweden (SE). Israel, Greece, Portugal, and the Eastern European states Czech Republic, Estonia, Hungary, Poland, and Slovenia are excluded due to a limited number of migrants and partially very specific migration histories (i.e., Israel, Czech Republic, and Estonia).

Using multivariate random effects (RE) regression models with individual-level clustered robust standard errors we examine differences in SWB between migrants and natives. The dependent variable CASP is a measure for the self-assessed quality of life and well-being of respondents. Quality of life can be operationalized in different ways depending on the field of research (e.g., financial assets in economics or health in medicine). Within the social sciences, good SWB is characterized by a positive state of mind and high levels of life satisfaction (Cummins, Lau, & Strokes, 2004). A common instrument to measure SWB is the Satisfaction with Life Scale. However, considering the age structure of SHARE respondents, we opt for CASP, a measure that is designed to quantify the perceived quality of life and subjective well-being of older respondents, initially developed in a population aged 65 to 75 years (Hyde, Wiggins, Higgs, & Blane, 2003; Sim, Bartlam, & Bernard, 2011). CASP does not only cover aspects of life satisfaction and health, but also social circumstances and functional limitations. It includes questions concerning the domains control, autonomy, self-realization, and pleasure (CASP). SHARE contains an abridged version of CASP that encompasses 12 out of originally 19 items by reducing each of the domains to the three strongest items. In order to do so the statistical analysis used to produce the original 19 item scale was replicated (von dem Knesebeck, Hyde, Higgs, Kupfer, & Siegrist, 2005). The score is the sum of all 12 items, which yields a minimum value of 12 and a maximum value of 48. The overall mean in our sample is 38.3 (SD: 6.1).

The control variables in this analysis include the following measures: age, sex, marital status, household size (i.e., the number of people per household), number of children, level of education measured by the 1997 version of the International Standard Classification of Education (ISCED), employment status (i.e., retired, employed or self-employed, unemployed, sick, homemaker, other), health (number of chronic diseases), and financial difficulties (original question wording: *Thinking of your household's total monthly income, would you say that your household is able to make ends meet... a) with great difficulty, b) with some difficulty, c) fairly easily or d) easily*). We generated a binary variable that equals 1 if the household has great or some difficulty and 0 if the household is able to make ends meet fairly easily or easily.

Our independent variables are the migration-related measures citizenship status, age at migration below/above 18, and length of residence. Apart from these individual factors, we use the average family reunion MIPLEX score per country of the period 2007 to 2013 as macrolevel indicator.

### 3.4 Results

Descriptive statistics separated by migrants and non-migrants are presented in Table 3.1. Overall, about 8 percent of all observations ( $N = 104,589$ ) in the sample are from respondents born in another country than the one they are living in at the time of interview. Regarding our dependent variable, migrants show on average only a slightly lower CASP value than natives. Comparing the sociodemographic characteristics, we see no striking differences between migrants and natives, with two exceptions: Migrants make up a higher share of people with financial difficulties and, unexpectedly, the educational level measured according to the International Standard Classification of Education (ISCED-97) is slightly higher among migrants. Latter holds for all migrant groups except Southern European migrants (tabulation not shown). Two thirds of the migrants have the citizenship of the country of residence. They mostly migrated a long time ago. The mean length of residence in the host country is 40.3 years. While the majority of them migrated after the age of 18 or far beyond, one third moved abroad in their early childhood or adolescence, most likely along with their families. This shows that the migrant population in SHARE is special not only in respect to age but also in the sense that most of the migrants have already been living in the host country for a very long period.

Table 3.2 shows the distribution of migrants and their origin regions (i.e., Northern / Central Europe, Eastern Europe, Southern Europe, and non-European areas) across all destination countries. For 85 migrants the information on region of origin is missing. The table shows that the distribution of all migrant groups is very heterogeneous across countries, which makes it necessary to control for country fixed effects in our regression models. Overall, migrants from Northern/Central Europe immigrating to other countries in Northern and Central Europe (DK, CH, SE, and BE) are the largest group with 36 percent, followed by non-Europeans with 31 percent. Especially non-European migrants might exhibit lower levels of SWB because high institutional barriers can hamper their social integration (e.g., legal access to labor market depending on citizenship). A closer look at the countries with the highest share of non-European migrants shows that in NL they are mainly from Indonesia and the former Dutch territories in the Caribbean, in FR and IT mainly from Northern Africa, and in ES mainly from Latin America and Morocco (not shown here). Both migrants from Southern and Eastern Europe make up about 16 percent in total, with the former representing the highest share in Luxembourg (mainly from Portugal) and the latter being the largest group in Austria and Germany (mainly from former Yugoslavia, former Czechoslovakia, and Poland).



### 3.4 Results

Table 3.1: Descriptive statistics of the sample (natives compared to migrants)

	Natives <i>N (obs.) = 95,940</i>		Migrants <i>N (obs.) = 8,649</i>	
	Percent	Mean (SD)	Percent	Mean (SD)
<b>CASP</b>		38.4 (6.0)		37.9 (6.1)
<b>Age</b>		65.1 (9.0)		63.8 (9.0)
<b>Female</b>	53.9		55.1	
<b>Married/reg. partnership</b>	72.6		69.7	
<b>Household size</b>		2.1 (0.9)		2.2 (1.1)
<b>Number of children</b>		2.2 (1.4)		2.3 (1.5)
<b>Education (ISCED 1997)</b>				
None	11.5		10.4	
Primary level	18.8		13.8	
Lower secondary level	17.0		12.3	
Upper secondary level	29.4		30.1	
Post-secondary non-tertiary	3.3		4.5	
First stage of tertiary	18.7		25.4	
Second stage of tertiary	0.6		1.2	
<b>Employment status</b>				
Retired	51.7		46.2	
Employed/self-employed	29.6		32.9	
Unemployed	2.8		5.4	
Permanently sick/disabled	3.3		4.5	
Homemaker	11.5		9.7	
Other	1.2		1.3	
<b>Financial difficulties</b>	27.3		34.8	
<b>Having chronic disease(s)</b>	60.0		59.2	
<b>Citizenship</b>	100.0		66.6	
<b>Migration after age 18</b>	0		64.1	
<b>Years in destination country</b>		equal to age		40.3 (17.7)
<b>TOTAL</b>	91.7		8.3	

Table 3.2: Distribution of migrants' origin regions by destination country

Country	Northern/Central Europe	Eastern Europe	Southern Europe	Non-European	Number of observations
Austria	34.5	<b>39.3</b>	9.2	17.0	882
Germany	31.3	<b>37.4</b>	7.9	23.4	1,342
Netherlands	22.8	3.2	6.3	<b>67.7</b>	505
France	14.7	3.7	23.6	<b>57.9</b>	1,265
Denmark	<b>48.2</b>	7.7	4.5	39.6	311
Switzerland	<b>54.5</b>	11.3	21.2	13.0	1,301
Sweden	<b>60.4</b>	17.9	3.2	18.5	853
Spain	18.4	10.2	3.3	<b>68.1</b>	392
Italy	28.2	7.1	12.2	<b>52.6</b>	156
Belgium	<b>38.5</b>	4.3	30.3	26.9	1,055
Luxembourg	39.7	5.0	<b>43.5</b>	11.9	504
<b>Total N</b>	<b>3,120</b>	<b>1,356</b>	<b>1,406</b>	<b>2,682</b>	<b>8,564</b>
<b>Total %</b>	<b>36.4</b>	<b>15.8</b>	<b>16.4</b>	<b>31.3</b>	<b>100.0</b>

As the first step of our analysis, we explore the differences in SWB between migrants and natives by running random effects regression models to estimate group-specific growth curves controlling for age, time of interview (wave), and country. In Figure 3.1, it can be seen that within the older population and compared to natives, migrants show significantly lower levels of subjective well-being. The differences decrease with increasing age and become statistically insignificant beyond the age of 78.

Figure 3.1: CASP for natives and migrants by age

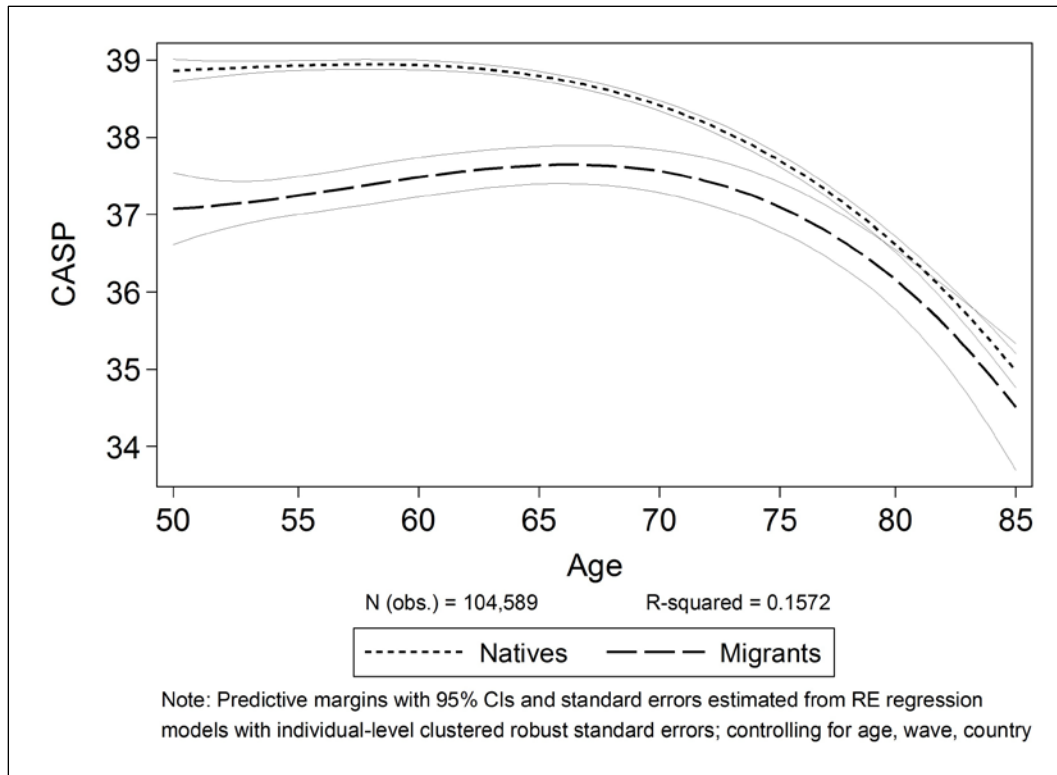
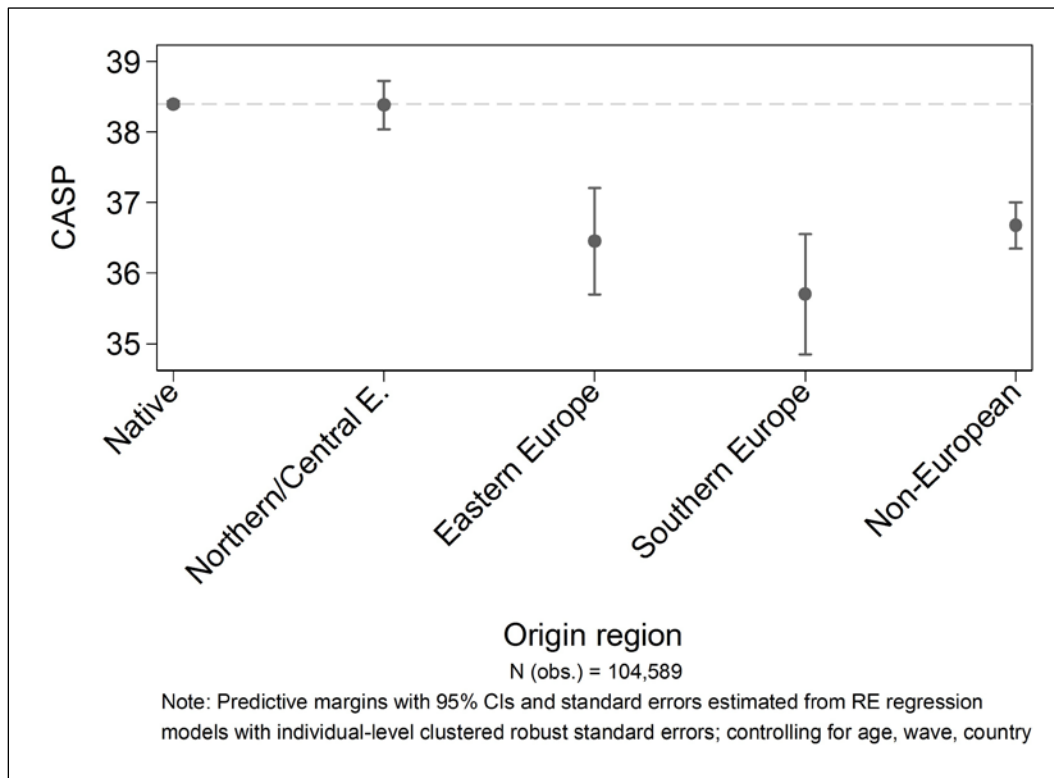


Figure 3.2 displays the immigrant-native gap by origin regions. The horizontal line represents the CASP level of non-migrants. For Northern/Central European migrants no significant differences can be observed. Their SWB level is almost equal to the one of natives. Eastern European, Southern European, and non-European migrants show CASP levels that are significantly lower than the levels of the native population. Surprisingly, the gap is largest for Southern European and not—as expected—for non-European migrants.

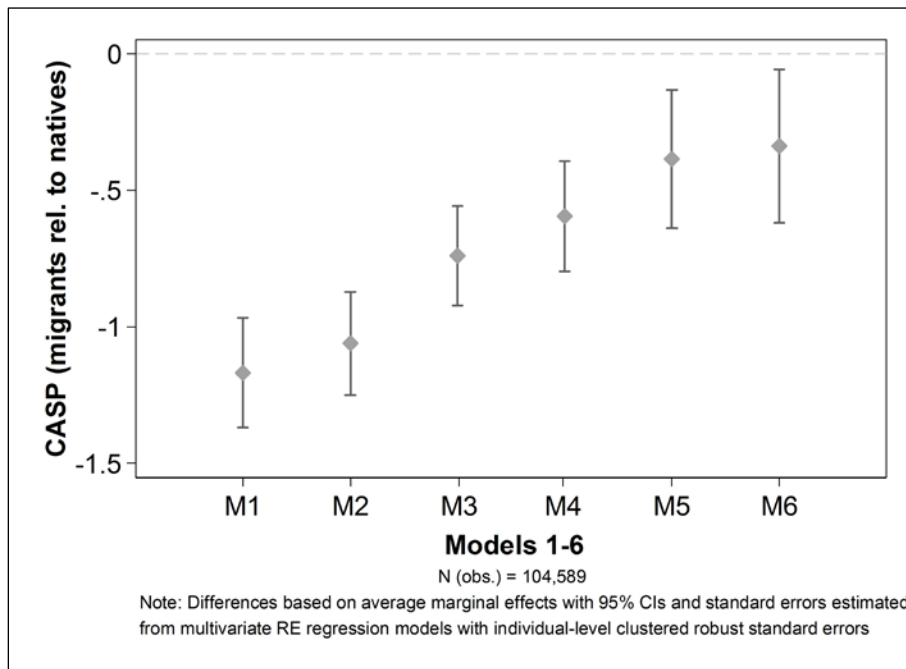
Figure 3.2: Predicted values of CASP by migrants' origin region (reference: natives)



Next, we examine individual factors that may have an impact on reducing the immigrant-native gap by estimating multivariate random effects regression models. As illustrated in Figure 3.3, we start with a basic model (M1) controlling for age, time of interview (wave), country and then stepwise add additional control variables: sociodemographic characteristics and health (M2) and having financial difficulties (M3). Then we add our independent variables: having the citizenship of the country of residence (M4), having migrated before/after the age of 18 (M5), and finally length of residence (M6; for natives the latter equals age). It can be observed that each model contributes to explaining the variation in SWB between migrants and natives. While sociodemographic characteristics and health (M2) do not show large effects, the gap becomes considerably smaller after accounting for the financial situation (M3), having the citizenship of the country of residence (M4), and having migrated before the age of 18 (M5). The years migrants have resided in the destination country (M6) slightly contribute to reducing the gap. After all, even after controlling for all individual characteristics in the full model, the immigrant-native gap remains significant.

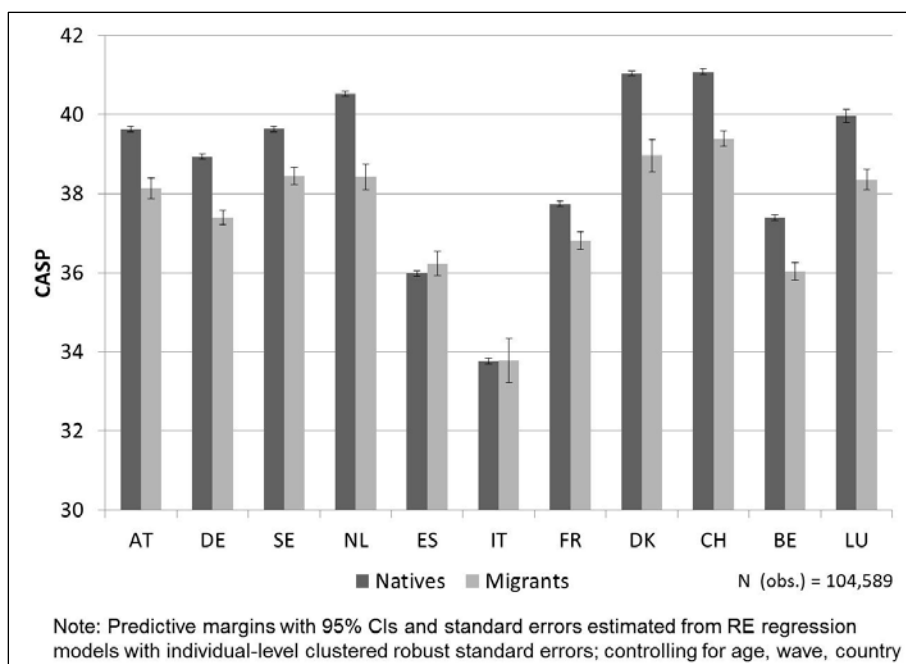
### 3.4 Results

Figure 3.3: Regression models 1 to 6 for CASP



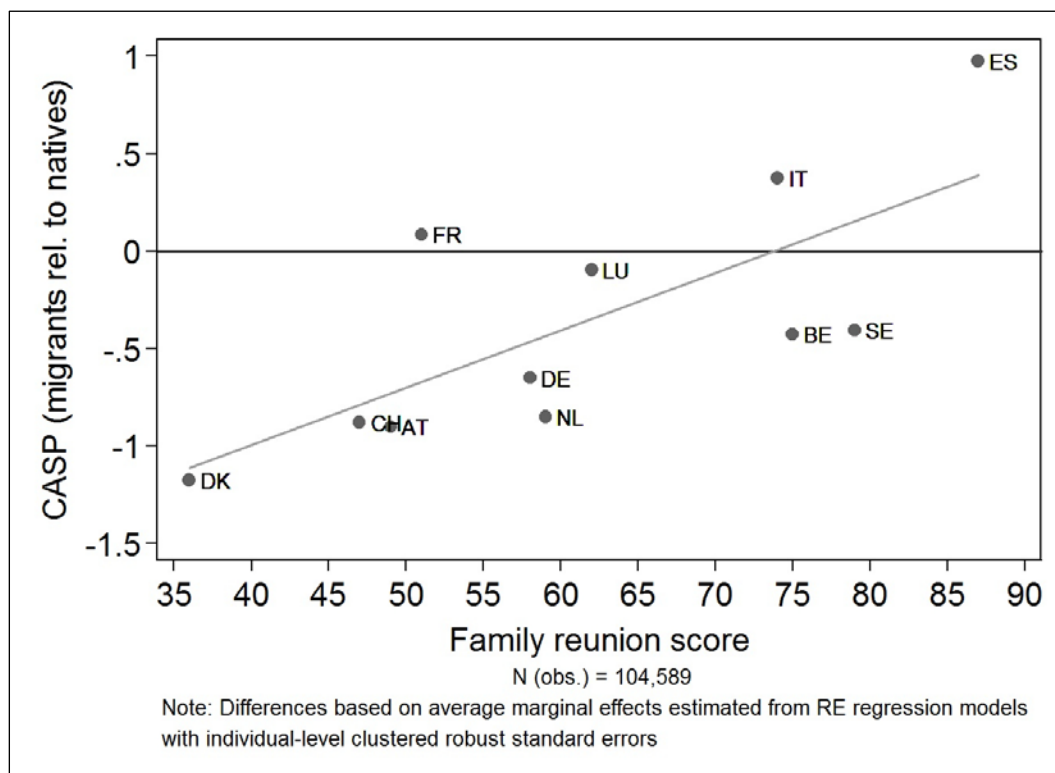
By moving our analysis to the country level, we first analyze the group differences between countries by controlling only for age, time of interview (wave), and country. The predictive margins in Figure 3.4 illustrate that there are large variations concerning the size of the immigrant-native gap across countries. Migrants have a lower level of SWB than the respective native population in all countries with the exceptions of ES and IT. The differences are largest in NL and DK.

Figure 3.4: Predicted values of CASP for natives and migrants, by country



Since we observe great variation in terms of integration policies in Europe, we complete our analysis by exploring to what extent the country disparities are associated with their institutional framework. Controlling for all individual factors (M6), Figure 3.5 plots the differences in SWB of migrants relative to natives (y-axis) against the country-specific average score in the MIPEX policy area family reunion (x-axis). The horizontal zero line represents the SWB level of natives. The slope of the graph clearly shows a positive association with family reunion policy context. The immigrant-native gap is comparably large in countries with low MIPEX scores (i.e., rather restrictive family reunion policies) and becomes smaller among countries with higher scores (i.e., more open family reunion policies). For instance, controlling for all individual factors, the CASP score of migrants in DK is on average one CASP point lower than the one of natives, whereas in ES it is one CASP point higher than in the native reference group.

Figure 3.5: Country correlation matrix of the immigrant-native gap in CASP and the MIPEX family reunion score



The results turned out to be robust after running our analyses separated by gender and by replacing CASP with life satisfaction as a quality of life measure (not shown here).

### 3.5 Discussion

The present study focuses on older migrants and explores the differences in SWB between migrants and non-migrants in different European countries. While most studies employ only individual variables, our analysis also integrates institutional factors by including policy context in terms of family reunion policies. Apart from destination effects, we also account for origin effects by examining the role of migrants' region of origin. The major findings of this study are specified in the following paragraphs.

We detect significant differences in SWB between older migrants and non-migrants that decline with increasing age. While SWB differences are starker for migrants originating from Southern and Eastern Europe as well as for non-European migrants compared to native born, the SWB levels of migrants from Northern and Central Europe are comparable to those of non-migrants. This is consistent with the results by Kämpfer (2014) who finds significant differences between migrants and natives for Germany and identifies migrants from Southern Europe as well as from Turkey and former Yugoslavian countries as the groups with the lowest SWB levels.

Moreover, the immigrant-native gap in SWB does not diminish largely after adding socioeconomic status and health, which belong to the key correlates of SWB (Diener, Kesebir, & Lucas, 2008; Schüz, Wurm, Warner, & Tesch-Römer, 2009). This may have to do with the fact that the migrants and non-migrants in our sample do not vary largely with regard to sociodemographic characteristics and health. Material resources strongly contribute to SWB and social integration (Böhnke, 2008). Our data suggest that having no financial difficulties significantly diminishes the immigrant-native differences in SWB. Apart from that, migration-related factors help reducing the group disparities: While Tucci et al. (2014) find that citizenship does not play an important role in reducing the SWB gap in Germany, our findings show that having the citizenship of the destination country reduces the SWB gap for migrants. Additionally, having migrated at an early age and the length of residence in the host country turn out to be important factors. Young migrants who grew up and were educated in the destination societies and migrants who have resided in their host countries for a considerable amount of time tend to be better assimilated than migrants who arrived recently and/or at later ages. This is in accordance with the empirical findings formulated by Gordon (1964) and Berry et al. (2006).

On the country level we observe considerable variation across countries regarding the size of the SWB gap. This variation is correlated with institutional context: The more open and inclusive a country's family reunion policy, the smaller the SWB gap for migrants. The findings are in line with the Capabilities approach by Sen (1993) and the Host Society Environment approach by Maxwell (2010) who stress the importance of structural conditions for promoting integration. They are also consistent with Hadjar and Backes (2013) who detect a positive correlation between the overall MIPLEX score and SWB.

Nevertheless, some limitations should be considered when interpreting these results. The migrant population in SHARE is special because it includes migrants aged 50 years and older who stayed in their destination countries and speak the corresponding language proficiently. Considering that low levels of SWB might be a reason to return to the country of origin (Mara & Landesmann, 2013) and that language skills are a major source of social integration (Gordon, 1964; Rumbaut, 1997), the SWB levels of the migrants in our sample might be biased upwards. Apart from younger migrants who are not part of the sample, we excluded respondents aged 85 and above due to low case numbers. Future research should examine whether the results also hold for younger migrants and the oldest old. Apart from that, Diener (1994) pointed out that personality-related variables (e.g., self-esteem) play a role for the individual SWB. Since this information is not part of the data, we could not account for personality characteristics.

Concerning policy implications, our results indicate that migrants' SWB can be improved by (1) providing the preconditions for equal access to economic resources, by (2) streamlining naturalization and citizenship regulations, and by (3) fostering an integrative receiving context. Promoting the family's integration in terms of easy access and sufficient associated rights for family members increases migrants' SWB and facilitates their social integration. Sponsoring the reunification of family members is especially meaningful for older migrants who are or will be in need for care. In the long run, this helps relieving the social security systems of the destination countries and strengthens social cohesion.

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## **4 Does Migration Pay Off in the Long Run? Income and Subjective Well-Being of Eastern European Migrants Aged 50+**

This paper was submitted to the *Journal of Ethnic and Migration Studies* and was written in co-authorship with Stefan Gruber.

### **4.1 Introduction**

Even though the individual driving forces of migration may differ, it can be argued that the majority of Eastern European migrants who move to a wealthier Western European country voluntarily share a common goal: the improvement of their economic living conditions and their quality of life in the destination country. But does migration really pay off in the long run? The aim of this study is to explore the income and well-being gains of older migrants who moved from the Czech Republic or Poland to Germany, Austria, or Sweden a long time ago and if the outcomes are connected with each other.

In 2016, 19.3 million persons out of about 500 million people living in the European Union were born in an EU member state different from their country of residence. With 4.3 million, Germany is the country with the highest number of people born in another EU country (5.3 percent of the German population). The share of EU immigrants is even higher in Austria with 8.2 percent and 5.4 percent in Sweden. Austria, Germany, and Sweden belong to the main destinations for migrants from other European countries (Eurostat, 2016). In contrast, Poland and the Czech Republic belong to the three European countries with the highest numbers of net emigration (Raymer, de Beer, & van der Erf, 2011). Romania is the only country with a higher emigration count.

Migration—no matter if intra-European or international—is often considered as a possible means to mitigate the consequences of population aging (Alho, 2008; Lanzieri, 2013) while others argue that immigration has only a limited impact and needs to be combined with policies aimed at increasing fertility and labour force participation (Bijak, Kupiszewska, & Kupiszewski, 2008; Camarota, 2005). Since the existing literature mainly focuses on younger migrants, one important aspect is usually missing in the discussion on replacement migration: The aging process also pertains to migrants that grow old abroad. To date, little is known about the well-being of older migrants and the long-lasting consequences of migration.

This paper is structured as follows: Chapter 4.2 summarizes previous research findings and points out the research gaps addressed by this study. Chapter 4.3 describes the particular

historical context of migration from the Czech Republic and Poland to Austria, Germany, and Sweden as a consequence of World War II (WWII). While chapter 4.4 contains theoretical considerations, chapter 4.5 introduces the data source and the methods used. The results in chapter 4.6 are followed by robustness checks and a discussion of limitations in chapter 4.7. Concluding remarks are presented in chapter 4.8.

### **4.2 Previous Findings and Contribution**

A great share of the extant literature has focused on the economic performance and labor market integration of migrants (e.g., Fleischmann & Dronkers, 2010; Kogan, 2011; van Tubergen, Maas, & Flap, 2004). However, social scientists have given increasing attention to how moving to another country affects the non-economic aspects of migrants' life such as happiness, subjective well-being (from now on referred to as SWB), and the perceived quality of life (e.g., Amit & Litwin, 2010; Tucci, Eisnecker, & Brücker, 2014).

In general, high levels of well-being are positively correlated with labor market productivity (Oswald, Proto, & Sgroi, 2009), income (De Neve & Oswald, 2012), and health outcomes (Carol Graham, Eggers, & Sukhtankar, 2004). Happier immigrants are less likely to be dependent on the host nations' welfare and healthcare systems (Ivlevs, 2014), an argument that becomes especially relevant for older migrants. Most studies exploring the well-being of migrants are confined to their destination countries and use the native population as reference group. They generally find a significant gap between the two groups, with migrants showing lower levels of happiness or SWB than natives (Malmusi, 2015; Safi, 2010; Sand & Gruber, 2016). However, the classical comparison with the native reference group does not necessarily provide sufficient information on the consequences of migration itself.

Two additional approaches and the combination of both are helpful to assess the influence of migration and post-migration experiences on specific outcomes more accurately: first, comparing the performance of similar migrant groups in different destinations and second, comparing the performance of a migrant group abroad with a group of people with similar characteristics in the country of origin, so-called stayers (Agyemang, de-Graft Aikins, & Bhopal, 2012). Bartram (2013a) finds similar happiness levels among migrants from Eastern Europe in comparison to stayers, with some exceptions: While migrants from Russia, Turkey, and Romania are happier, Polish migrants are unhappier than stayers. Baykara-Krumme and Platt (2016) show that Turkish migrants (and return migrants) experience higher life satisfaction in old age than stayers. This is in line with Nikolova and Graham (2014) who find that

migration does not only improve the material situation, but also the SWB of migrants from transition to advanced economies.

Various authors have stressed the importance of analyzing group disparities in happiness and well-being, thereby highlighting the role of relative income (e.g., Clark & Senik, 2010; Easterlin, 1995; Ferrer-i-Carbonell, 2005). In this context, migrants are an interesting population as they are confronted with different reference groups: natives in the new destination country and stayers in the origin country. Studying the main migrant groups in Germany, a recent study by Akay, Bargain, and Zimmermann (2016) finds that their origin countries act as a “natural comparator” for migrants: Migrants’ SWB decreases with increasing GDP per capita of the origin country. However, it is argued that the importance of the country of origin declines with duration of stay and the degree of assimilation.

The long-term impact of moving abroad on the quality of life and well-being of the immigrant population in receiving countries is not easy to determine, especially due to the lack of adequate data. Therefore, the aim of this study is to have a closer look at the income and well-being disparities of older and settled migrants compared to their counterparts in the places of origin in order to gain a better understanding of the benefits of migration. We contribute to previous research by including the long-term perspective. The sample from the Survey of Health, Ageing and Retirement in Europe (SHARE) is comprised of older respondents who have resided in the destination country for a substantial amount of time (on average 30 years). Respondent matching allows for comparing the performance of migrants in different destinations using similar individuals of two reference groups: those who stayed in the place of origin and the native population in each place of destination. This study may shed light on the connection between the relative income situation of migrants and potential SWB gains through migration. Our focus is on respondents from the Eastern European countries of the Czech Republic and Poland. They constitute the largest group of migrants in the dataset and one of the main migrant groups within Europe. Their main Western European destination countries in the dataset are Austria, Germany, and Sweden.

### **4.3 Migration from the Czech Republic and Poland to Austria, Germany, and Sweden**

Immigration from the Czech Republic and Poland to Germany and Austria is special due to historic displacements at the end of World War II and afterwards. A large number of German nationals grew up and resided in the formerly occupied territories of the German Reich be-

yond the Oder-Neisse line (now Poland) and Sudetenland (the northern, western, and southern border regions of Bohemia which now belong to the Czech Republic). The forced “germanization” of millions of non-Germans in those areas during wartime triggered strong resentment and the expulsion of German settlers after the war. Most expellees found refuge in the West or East German occupation zones, others settled in Austria or other parts of Europe (Madajczyk, 1999; Prauser & Arfon, 2004).

Overall, the German exodus affected more than 12 million refugees from East Prussia, Pomerania, Brandenburg, Silesia and Sudetenland, but also from the more remote areas such as Volga (Russian territory), Hungary, Romania, Croatia, Serbia, Slovenia, and the Baltic region. Virtually all German civilians residing in Poland (about 8 million) and Czechoslovakia (about 3 million) had left their home places forcefully or voluntarily by the end of the 1950s. In 1953, ethnic German refugees and expellees from the formerly occupied eastern territories of the German Reich who were not already German nationals became entitled to German citizenship under the Federal Law on Refugees and Exiles. This law resulted in continuing immigration of those who were persecuted or discriminated for their German or alleged German ethnicity between 1945 and 1990 (“Aussiedler”). The majority of ethnic Germans immigrated up to the 1950s and managed to become an integral part of German or Austrian society. However, the more recent their immigration, the more difficult it became in terms of adaptation to language and integration (Faulenbach, 2005; Prauser & Arfon, 2004; Schneider, 2005).

In the case of Sweden, 30,000 survivors from Nazi concentration camps were granted resettlement after the end of WWII, a great number of them were Polish citizens. Apart from that, Sweden accepted labor migrants and refugees from Warsaw Pact countries between the 1960s and the 1980s. The new arrivals usually found quick access to the Swedish labor market and society. Many of them were granted permanent residence (Westin, 2006).

In Germany and Austria, the majority of Czech and Polish migrants in the sample are ethnic Germans who relocated during or shortly after WWII. As our analysis should not entail this group of forced migrants, we exclude all respondents who emigrated up to 1950. Therefore, the migrant samples of Austria and Germany decrease considerably. As opposed to that, no such constraint appears in Sweden, where major immigration movements took place from the 1960s onwards, with the largest inflow of Eastern European immigrants in the 1980s.

## 4.4 Theoretical Framework

Theories of international migration generally assume that the migration decision is motivated by the goal of income maximization. According to the standard individual-level migration model developed by Sjaastad (1962), migrants evaluate the costs and benefits of migration. The costs include direct expenses such as transportation costs, language courses, and visa fees; opportunity costs of foregone earnings and opportunities at home; as well as psychological costs related to separation from family and friends (Nikolova & Graham, 2014). An individual considers moving to another country if the expected utility from migration exceeds the costs.

H1: As the economic gains should exceed the costs, we expect that migrants who have moved from Eastern Europe to a wealthier Western European country have higher income levels than similar stayers.

Based on well-being studies, there is growing consensus that income-based measures are insufficient to understand all aspects of migration (ibid. 2014). Regardless of the motives to migrate, it is important to draw on non-pecuniary outcome measures such as SWB to gain a comprehensive understanding of the long-term consequences of migration. Well-being indicators are useful to represent individual utility (Clark, Frijters, & Shields, 2008). Therefore, they could reflect the real economic and perceived welfare gains of immigration.

A change in income through migration might affect migrants' SWB. The impact of income on SWB does not only depend on the absolute income but also on the relative income position of an individual. In this context, external and internal reference points can be distinguished. An external reference point refers to the comparison of an individual with a distinct demographic group such as the social network or colleagues at the workplace. An internal reference point refers to the comparison of an individual to oneself, either to one's own past income (adaptation) or to one's expected future income (aspirations). Adaptation means that individuals get used to their circumstances, insofar as changes in income only have moderate effects on SWB. The same applies to growing aspirations. If aspirations rise with own actual income, then the effect of income on SWB is muted (Clark et al., 2008).

Empirical research has shown that adaptation and growing aspirations lead to a vanishing effect of income on SWB over time. Using data from the German Socio-Economic Panel, Di Tella, Haisken-De New, and MacCulloch (2010) find that 65 percent of the current year's impact of income on happiness is lost over the following four years. For different European



countries, the Leyden Group finds that a current increase of one dollar in the household income drops to an experienced increase of 60 cents in peoples' income evaluation after about two years (van Praag & Frijters, 1999). An important implication of these findings is that the time of observation is an important factor. If individuals are observed right after an income gain, a different income effect on SWB is measured than several years later.

H2: Due to processes of adaptation and growing aspirations, we expect that the income gain of those who migrated compared to similar stayers (H1) does not translate into a comparable gain in SWB in the long-run.

Regarding external reference points, migrants could compare themselves to those who remained in the home country or to similar natives in the destination country. According to Akay et al. (2016), migrants seem to regard their home countries as natural comparators. The economic situation in the place of origin plays a decisive role in determining the SWB levels of migrants. (Gelatt, 2013, p. 39) finds that '(...) the relationship between various measures of subjective social standing and subjective well-being suggests that immigrants maintain simultaneous reference groups (...)'. In other words, immigrants' point of reference can be both home and destination country. This depends on their involvement in transnational associations or businesses and their connection with members of the origin country. Again, the time of observation becomes a major factor in this respect. While shortly after migration, it can be expected that the reference group are mainly stayers, increasing time abroad might lead to growing importance of natives in the destination country, at least as an additional reference group.

H3a: As the majority of migrants in the SHARE sample migrated a long time ago, we expect that their comparison group has shifted from stayers in the origin country to natives in the destination country.

H3b: The SWB gains of those who migrated are higher in countries with a better income position relative to natives.

#### **4.5 Data and Methods**

We use the first interview of each respondent from the regular panel waves 1, 2, 4, 5, or 6 of SHARE (Börsch-Supan, 2017). SHARE was started in 2004 and is a multidisciplinary panel study on health, aging, socioeconomic status, and social networks of respondents from 20 European countries plus Israel aged 50 or over (Börsch-Supan et al., 2013). The survey is

administered biennially via computer-assisted personal interviews (CAPI). Compared to other datasets, SHARE has two major advantages when studying the consequences of migration. First, due to the variety of countries and the large amount of respondents, migrants can be compared to both natives in the destination and stayers in the origin country. Second, the long duration of stay allows for studying the long-term impact of migration.

The overall SHARE sample comprises more than 120,000 individuals. The sample at hand includes migrants (i.e. respondents born in the Czech Republic and the former territory of Czechoslovakia or Poland who migrated after 1950 and are now living in Austria, Germany, or Sweden), stayers (i.e. respondents born and living in the Czech Republic and the former territory of Czechoslovakia or Poland), and natives (i.e. respondents born in and having the citizenship of Austria, Germany, or Sweden) aged 50 to 85. Respondents older than 85 and other possible origin and destination countries represented in SHARE are excluded due to limited case numbers.

Since this analysis focuses on the long-term consequences of migration on SWB, migrants who recently moved to their new destination country are excluded. According to the definition of (Massey, 1986), a person is a migrant if she/he has lived in the destination country for three continuous years. For this reason, all observations of migrants who have resided three years or less in the destination country are dropped from the analysis ( $n = 15$ ). It should be noted that this definition of long-term is more restrictive than definitions applied by international organizations such as OECD or UN that consider a long-term migrant as someone who has lived in the new destination for just one year.

### **Dependent Variables**

The income measure is generated by taking the net household income for each individual adjusted by household size and the relative purchasing power parity (PPP) of the country of residence. This adjustment makes it possible to explore income differences across countries. In order to maximise the number of observations, we take the imputed household income as provided by SHARE.

In regard to SWB, psychological research differentiates between two types of well-being: hedonic and eudaimonic. The hedonic type equates well-being with pleasure and happiness (Ryan & Deci, 2001). It focuses on subjectively determined positive mental states. In contrast, the eudaimonic type focuses on experiences that are objectively good for the person (Kagan, 1992). It is measured by questions on autonomy, determination, interest and en-

gement, aspirations and motivation, and a sense of meaning, direction, or purpose in life (Clark et al., 2008). Correlational analyses indicated that both hedonic and eudaimonic dimensions are associated with well-being, with more robust associations observed among the eudaimonic dimension (McMahan & Estes, 2011).

Considering the age structure of SHARE respondents, we opt for CASP, a measure that is designed to quantify the perceived quality of life and subjective well-being of older people. CASP was initially developed in a population aged 65 to 75 years (Hyde, Wiggins, Higgs, & Blane, 2003; Sim, Bartlam, & Bernard, 2011). It does not only cover aspects of life satisfaction and health, but also social circumstances and functional limitations. It includes questions concerning the domains control, autonomy, self-realization, and pleasure (CASP). While the first three domains represent the eudaimonic aspects of well-being, the last one captures hedonic traits. SHARE contains an abridged version of the CASP-19 index that encompasses 12 out of originally 19 items by reducing each of the domains to the three strongest items. In order to do so, the statistical analysis used to produce the original 19 item scale was replicated (von dem Knesebeck, Hyde, Higgs, Kupfer, & Siegrist, 2005). The score used as dependent variable is the sum of all 12 items. After transformation, the score yields a minimum value of 0 and a maximum value of 36.

#### **Control Variables**

We use standard sociodemographic indicators such as age, gender, marital status, having children, and country of origin (Czech Republic or Poland) as control variables. Apart from that and in line with (Ormel, Lindenberg, Steverink, & Verbrugge, 1999), we include key personal resources that are associated with SWB: the number of chronic diseases as an indicator for physical health (0 = no chronic disease, 1 = one chronic disease, 2 = two or more chronic diseases) and education (in years). Additionally, we control for employment status (i.e. being retired, self-employed/employed, or other employment status such as homemaker or being permanently sick).

#### **Methods**

Group inequalities are examined in three analytical steps: (1) First, we compare the absolute income gains of those who left to those who stayed both overall and for each migrant group in the three destination countries. (2) Second, we look at the relative income position of immigrants within each destination country (i.e. comparison to Austrian, German, and Swedish natives). (3) Third, we examine whether there are migrant-stayer differences in terms of SWB

and whether they deviate between destination countries. Since we consider relative income as an important factor for individual well-being, it is linked to our central outcome variable SWB by (4) analyzing the effect heterogeneity for three migrant groups: (a) those who have a lower income than stayers, (b) those whose income is above the mean income of stayers but below the income of natives, and (c) those with a household income above the one of natives. Additionally, we focus on group (b) to further explore a potential relationship of the relative income position with migrants' SWB levels.

Stata 14 and the `psmatch2` command (Leuven & Sianesi, 2003) are employed to perform Propensity Score Matching (PSM). PSM is a statistical matching technique that attempts to estimate the effect of a treatment by choosing a comparison or control group that consists of individuals as similar as possible in observable characteristics to individuals of the treated group (i.e. proxies for the counterfactual mean), but who did not receive the treatment (Caliendo & Kopeinig, 2008). For the purpose of this analysis, migrants are considered as the treatment group, while stayers (reference group in steps 1, 3, and 4) and natives (reference group in step 2) represent the untreated control groups.

In general, the propensity score is a balancing score, which gives information about the probability of being assigned to the treatment or control group. In this study, the propensity score is used to guarantee that the distribution of all observed covariates is similar between treated and untreated subjects. In other words, rather than determining the propensity of belonging to the treatment or one of the control groups (natives in the destination country never had a propensity to migrate), PSM is used to compare respondents with a certain set of characteristics in the treatment group with similar counterparts in the control groups. For instance, migrant A with characteristics X is compared to stayer B with characteristics similar to X and native C with characteristics similar to X. A graphical analysis yields similar propensity scores of migrants and the two control groups after matching (figures available upon request).

PSM is based on two assumptions. First, the outcomes are independent of treatment assignment, which means that people's SWB levels are not associated with belonging to the treatment or control group (conditional independence assumption). Second, for each individual in the treatment group, there should be at least one individual with the same characteristics in the control group (overlap assumption). Given this, we obtain the average treatment effect on the treated (ATT):

$$ATT = E[Y(1) | D = 1] - E[Y(0) | D = 1]$$

We use nearest neighbour matching (three neighbours) as matching estimator to calculate the ATT. Stratification matching is applied to test whether the results are robust regarding the matching algorithm (see chapter 4.7).

## 4.6 Results

Descriptive statistics separated by migrants and both reference groups are presented in Table 4.1. The numbers listed exclude forced migrants during or after WWII and observations of those who have resided three years or less in the destination country. Out of the remaining 173 migrants, 39 are from the Czech Republic (23 percent) and 134 from Poland (77 percent). The largest number of them reside in Germany ( $n = 97$ ), followed by Austria ( $n = 43$ ), and Sweden ( $n = 33$ ). Regarding our dependent variables, the PPP-adjusted income of migrants significantly increases by more than 100 percent compared to stayers. Their CASP scores are significantly higher than the CASP of stayers. This holds for both the total migrant sample and for migrants in all three destination countries. Compared to natives in the destination countries, the relative income of migrants is lower in Germany and Sweden, whereas it is significantly higher in Austria.

Concerning sociodemographic characteristics, we observe the following significant differences between the three groups: Migrants in the sample are younger than stayers and natives. The share of persons having children is lowest among migrants. Furthermore, migrants account for a higher number of education years and retired people than both reference groups. With respect to physical health, stayers are worse off than migrants and natives. Both groups may profit from the better health care systems in the destination countries. Laaksonen et al. (2001) find that the East-West difference in health status can partly also be explained by different health life-styles.

To sum up, Eastern migrants in the sample at hand are relatively young and well-educated. They fare better than stayers both in terms of income and well-being; but except for migrants' income in Austria, they tend to be worse off on these indicators than natives in the destination countries.

## 4.6 Results

Table 4.1: Sample description

	Migrants				Stayers			Natives		
	AT	DE	SE	Total	CZ	PL	Total	AT	DE	SE
CASP	38.86 (6.40)	37.95 (5.36)	37.45 (4.60)	38.08 (5.48)	34.95 (5.80)	35.00 (6.73)	34.97 (6.06)	39.62 (5.98)	38.98 (5.77)	39.61 (4.85)
Income	23,305 (20,491)	15,751 (9,861)	18,102 (11,439)	18,077 (13,822)	8,464 (6,069)	4,612 (4,033)	7,445 (5,855)	16,571 (13,679)	17,288 (35,036)	18,920 (10,509)
Age	62.94 (7.16)	58.54 (7.96)	63.67 (9.30)	60.62 (8.34)	63.88 (8.53)	61.89 (8.88)	63.35 (8.67)	64.16 (8.71)	63.08 (9.01)	64.67 (8.67)
Female	60.5%	60.8%	66.7%	61.8%	56.9%	55.3%	56.4%	56.8%	52.4%	52.9%
Married, living together	51.2%	80.4%	69.7%	71.1%	66.9%	76.6%	69.5%	63.8%	76.0%	71.9%
Having children	69.8%	82.5%	84.8%	79.8%	94.7%	93.6%	94.4%	63.9%	87.6%	93.2%
Years of education	13.47 (4.32)	12.61 (4.19)	13.58 (3.86)	13.01 (4.16)	12.13 (3.04)	9.77 (3.28)	11.51 (3.28)	9.54 (4.48)	12.86 (3.47)	11.07 (3.64)
Employment status:										
Retired	62.8%	23.7%	48.5%	38.2%	65.8%	51.9%	62.1%	61.4%	45.7%	52.9%
(Self-)Employed	27.9%	59.8%	48.5%	49.7%	28.5%	24.5%	27.4%	23.5%	36.8%	41.4%
Unemployed	4.7%	4.1%	n.a.	3.5%	2.6%	5.0%	3.2%	2.7%	4.8%	2.1%
Other	4.7%	12.4%	3.0%	8.7%	3.1%	18.6%	7.2%	12.5%	12.7%	3.6%
Chronic diseases:										
None	37.2%	37.1%	60.6%	41.6%	32.7%	37.9%	34.1%	40.1%	38.0%	41.7%
One	41.9%	34.0%	24.2%	34.1%	31.8%	29.3%	31.1%	30.8%	31.1%	30.9%
Two or more	20.9%	28.9%	15.2%	24.3%	35.5%	32.8%	34.8%	29.1%	30.9%	27.5%
<b>Total</b>	<b>43</b>	<b>97</b>	<b>33</b>	<b>173</b>	<b>7,081</b>	<b>2,546</b>	<b>9,627</b>	<b>5,679</b>	<b>7,810</b>	<b>5,982</b>

Note: Percentages displayed for categorical, means for metric variables; standard deviation in parentheses  
Source: SHARE release 6.0.0 data

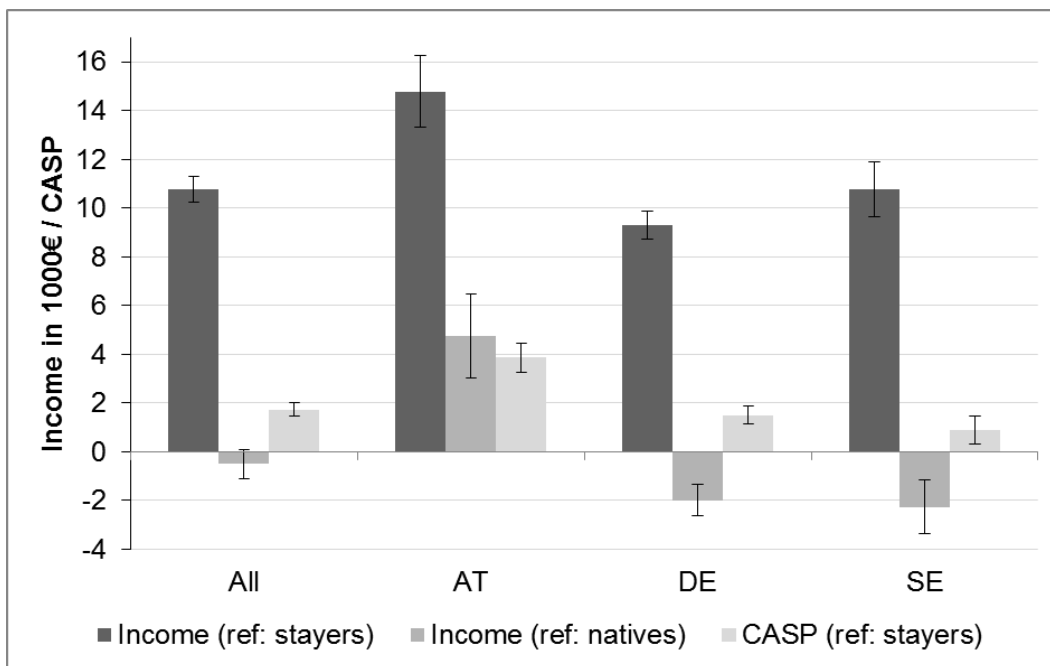
As the first step of the analyses, we examine the ATT differences in income (adjusted for household size and PPP) by running PSM models controlling for age, sex, marital status, having children, years of education, employment status, chronic diseases, and place of birth. The predictions in Figure 4.1 (dark-grey bars) show that Eastern migrants clearly increase their income after migration, no matter at which destination ( $p < 0.05$ ), supporting H1. The largest income gains can be observed in Austria, followed by Sweden, and Germany.

As the second step, we analyse the income of migrants in relation to natives, both overall and in each destination country (medium-grey bars in Figure 4.1). The results show the following (insignificant) trend: While in Austria, the difference in income between migrants and

natives is positive, Eastern migrants to Germany and Sweden witness a negative relative income gap.

In the third step (light-grey bars in Figure 4.1), we explore the differences in SWB between Eastern European migrants and stayers, overall and at all three destinations. If the gain in income translated equally into SWB, which is against our expectations (H2), we would observe a CASP gain for migrants in all destination countries. It should be largest in Austria, the country with the highest income advantage, followed by Sweden and Germany. The model based on the total migrant sample indicates that in the long-run, migration from Eastern to Western Europe leads to a significant SWB increase (ATT = 1.7,  $p < 0.05$ ). Migrants to Austria have the highest SWB gain (ATT = 3.9,  $p < 0.05$ ), followed by Germany (ATT = 1.5,  $p < 0.05$ ). In Sweden, the increase is lowest and not significant (ATT = 0.9). These results show that income gains through migration do not equally translate into SWB gains.

Figure 4.1: Income and SWB differences between migrants, stayers, and natives

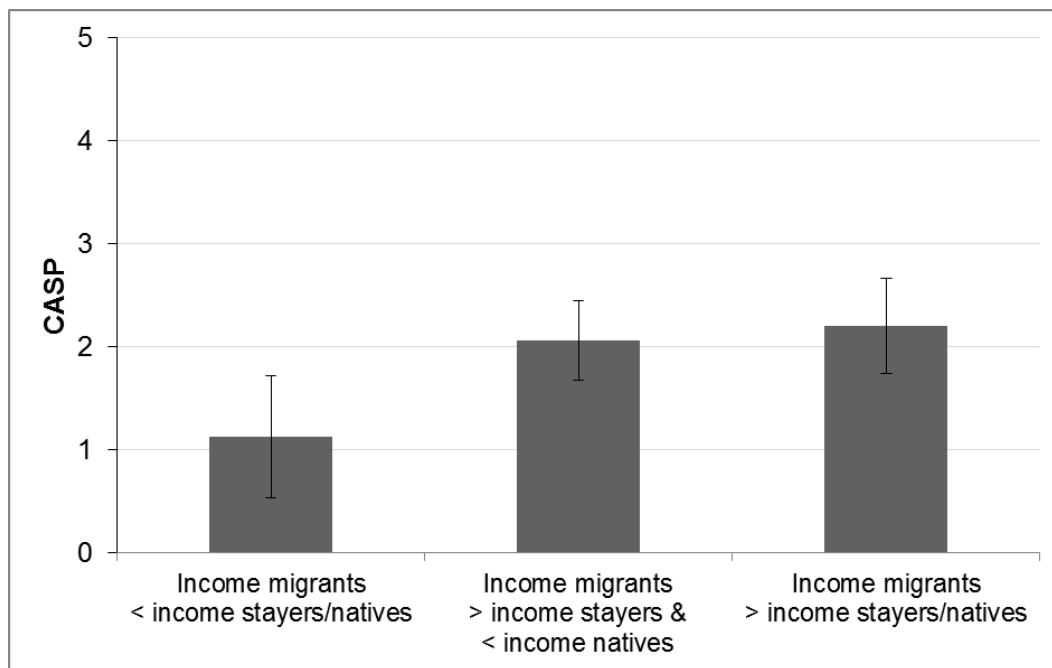


Note: ATT differences and standard errors estimated from PSM  
Source: SHARE release 6.0.0

In the last analytical step, we have a closer look at the relationship between relative income and well-being. The migrant sample is divided into three groups: (1) migrants who have a lower income than the average income in their origin country (14 percent), (2) migrants whose income is higher than the one of stayers but lower than the average income of natives in the destination country (49 percent) and (3) migrants who are above the average income of natives (37 percent). As shown in Figure 4.2, the SWB increase of migrants com-

pared to stayers is positive across all income groups. However, the ATT is only significant in group 2 (ATT = 2.1,  $p < 0.05$ ) and group 3 (ATT = 2.2,  $p < 0.05$ ). This means that migrants significantly increase their SWB through migration if their income is higher than the average income of stayers in the origin country. It can even be lower than the average income of natives in the destination country. In order to test how low, group 2 is divided into income tertiles. We find significant SWB gains for migrants whose income is in the third tertile, that is, only slightly lower than the income of natives (see Figure 4.3). We conclude that achieving a similar or better income position relative to natives might play a decisive role in determining good well-being of migrants in the long run. This implies a shift or extension of their frame of reference to the native population (H3a). However, this finding only partly supports H3b because we would not have expected significant SWB gains for those migrants who are below the average income of natives.

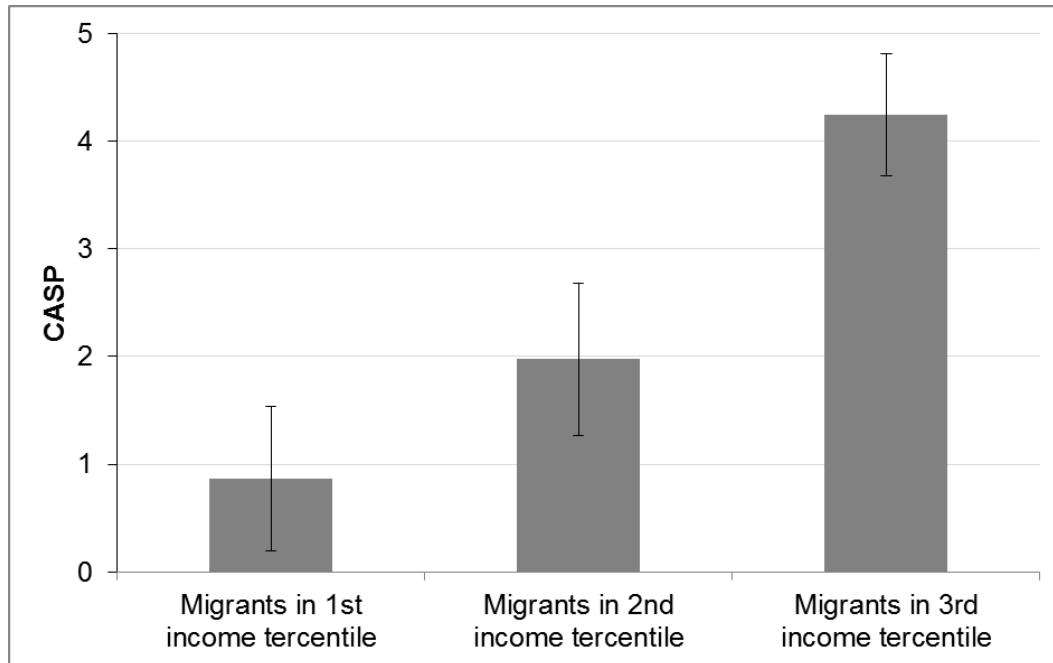
Figure 4.2: Well-being gains of migrants over similar stayers; separate models according to the relative income position



Note: ATT differences and standard errors estimated from PSM  
Source: SHARE release 6.0.0



Figure 4.3: Well-being gains of migrants over similar stayers; income tertiles of migrants with income above stayers but below natives



Note: ATT differences and standard errors estimated from PSM  
 Source: SHARE release 6.0.0

#### 4.7 Robustness Checks and Limitations

In the first robustness check, we test whether the results of the PSM models also hold when applying linear regression. The models presented in Table 4.2 (overall and countrywise) show the same trend. The dependent variable in each of the models is the CASP score; the explanatory variable is migration (i.e. migrants = 1, stayers = 0). The covariates are the same ones we used to calculate the propensity score. In contrast to model I, model II also controls for income to see to what extent the coefficient of migration is affected.

In the total sample, the coefficient of migration is significantly positive in model I and model II, although it decreases considerably when controlling for income. The country models show that Austria is the only destination country with a significantly positive migration coefficient after controlling for income. In contrast, the coefficient in Sweden becomes negative after including income (insignificant).

#### 4.7 Robustness Checks and Limitations

Table 4.2: Results of linear regression models; model I not controlling for income and model II controlling for income

Linear regression DV: CASP	Total		Austria		Germany		Sweden	
	I	II	I	II	I	II	I	II
Migration (ref.: stayers)	1.91*** (0.52)	0.94* (0.53)	3.45*** (0.95)	2.07** (0.96)	1.41** (0.66)	0.61 (0.67)	0.55 (1.32)	-0.79 (1.32)
Age	-0.06*** (0.01)	-0.06*** (0.01)	-0.05*** (0.01)	-0.06*** (0.01)	-0.05*** (0.01)	-0.06*** (0.01)	-0.05*** (0.01)	-0.06*** (0.01)
Female (ref.: male)	-0.47*** (0.12)	-0.46*** (0.12)	-0.46*** (0.12)	-0.46*** (0.12)	-0.46*** (0.12)	-0.45*** (0.12)	-0.45*** (0.12)	-0.44*** (0.12)
Married, living tog. (ref.: other mar. stat.)	0.82*** (0.13)	0.80*** (0.13)	0.83*** (0.13)	0.81*** (0.13)	0.82*** (0.13)	0.80*** (0.13)	0.83*** (0.13)	0.82*** (0.13)
Having children (ref.: no children)	0.64** (0.25)	0.72** (0.25)	0.68** (0.26)	0.74** (0.25)	0.68** (0.25)	0.76** (0.25)	0.71** (0.26)	0.78** (0.26)
Years of education	0.31*** (0.02)	0.29*** (0.02)	0.32*** (0.02)	0.30*** (0.02)	0.32*** (0.02)	0.29*** (0.02)	0.32*** (0.02)	0.29*** (0.02)
Employment status: (ref.: retired)								
Employed or self-employed	-0.05 (0.18)	-0.17 (0.18)	-0.02 (0.18)	-0.14 (0.18)	-0.04 (0.18)	-0.17 (0.18)	-0.02 (0.18)	-0.15 (0.18)
Unemployed	-3.24*** (0.24)	-3.09*** (0.24)	-3.20*** (0.35)	-3.04*** (0.35)	-3.22*** (0.35)	-3.05*** (0.35)	-3.18*** (0.36)	-3.00*** (0.35)
Other	-2.31*** (0.25)	-2.23*** (0.25)	-2.35*** (0.25)	-2.27*** (0.25)	-2.33*** (0.25)	-2.25*** (0.25)	-2.39*** (0.25)	-2.31*** (0.25)
Chronic diseases (ref.: no chronic dis.)								
One chronic disease	-1.15*** (0.15)	-1.14*** (0.15)	-1.15*** (0.15)	-1.15*** (0.15)	-1.17*** (0.15)	-1.16*** (0.15)	-1.16*** (0.15)	-1.15*** (0.15)
Two or more chronic diseases	-2.74*** (0.15)	-2.72*** (0.15)	-2.73*** (0.15)	-2.72*** (0.15)	-2.74*** (0.15)	-2.73*** (0.15)	-2.74*** (0.15)	-2.73*** (0.15)
Country of birth Poland (ref.: Czech Republic)	0.80*** (0.17)	0.93*** (0.17)	0.88*** (0.17)	1.02*** (0.17)	0.86*** (0.17)	1.01*** (0.17)	0.91*** (0.17)	1.06*** (0.17)
Wave fixed effects	yes	yes	yes	yes	yes	yes	yes	yes
Income	-	0.08*** (0.01)	-	0.08*** (0.01)	-	0.09*** (0.01)	-	0.09*** (0.01)
Constant	35.79***	35.62***	35.56***	35.40***	35.63***	35.45***	35.47***	35.28***
Adj. R-squared	0.1198	0.1255	0.1193	0.1250	0.1194	0.1259	0.1191	0.1253
N	9,800	9,800	9,670	9,670	9,724	9,724	9,660	9,660

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01; standard errors in parentheses  
Source: SHARE release 6.0.0 data

In a further robustness check, we test whether our results are robust regarding the matching algorithm applying stratification matching (atts command in Stata 14) instead of nearest neighbour matching. The stratification option assigns similar propensity scores of treated and untreated individuals to different intervals (strata). Within each propensity score stratum, treated and untreated individuals obtain roughly similar values of the propensity score. Although the size of the ATT differs slightly between nearest neighbour and stratification

matching (1.8 instead of 1.7 in the total sample), the tendency and interpretation of the results remain the same for both algorithms.

In the following paragraphs, we discuss methodological difficulties and limitations of the study. The most relevant one is endogeneity. The results of the PSM models cannot be interpreted causally, which is one of the main limitations of this study. It is possible that the observed difference in SWB between migrants and stayers is a consequence of positive or negative selection into migration. The small number of empirical research on this topic mostly finds negative selection into migration. In their study of Latin American migrants, (C. Graham & Markowitz, 2011) detect that intended migrants are less happy than those who do not intend to migrate to the United States and Spain. The results of (Otrachshenko & Popova, 2012) lead to a similar conclusion in the European context: Dissatisfied European migrants show a higher intention to migrate than satisfied individuals. Using an endogenous treatment regression model, (Bartram, 2013a) finds that endogeneity does not play a significant role for most Eastern European migrants who relocate to a Western European country, except for Polish migrants. His findings indicate that migrants from Poland are negatively selected into migration.

To test whether endogeneity leads to a bias in our results, we follow the strategy of Bartram (2013a) with one difference: Bartram uses the educational level of parents, whereas we use books in the household at age 10 as a proxy for the educational background. The results are presented in Table A-4.1. They are based on a reduced sample because the question on books is only asked in SHARE waves 3 and 5. With a chi square value above 0.05, the null hypothesis of no correlation between treatment and outcome error terms is accepted. However, we do not consider the results as reliable. A necessary requirement for an endogenous treatment regression model is a variable that affects the treatment but not the outcome. No evidence can be found that the educational background fulfils this requirement, neither from a theoretical nor empirical point of view. In order to deal with endogeneity, further research should apply different methods (e.g. an instrumental variable approach) to identify the causal relationship between migration and well-being.

Apart from endogeneity, the cultural embeddedness of answer behaviour to questions on well-being can play a role when analysing SWB differences and therefore bias our results. An interesting paper by Senik (2014) analyses differences in happiness statements between natives and immigrants in a set of European countries. With the aim to disentangle the influence of objective circumstances versus psychological and cultural factors, the author finds that the

latter turn out to be of non-negligible importance. Using data from the European Value Survey, Voicu and Vasile (2014) examine whether life satisfaction is a stable, culturally induced feature. Their findings indicate that the measured well-being of migrants is a mixture of influences both from the origin and destination country's culture. The more time a person spends in the destination country, the stronger is the impact of the destination country's norms. As the migrant population in SHARE has migrated a long time ago, a potentially high influence of the destination country's culture could lead to an upward bias of the results. However, the host country's norms never fully overcome those learned in the origin society. Therefore, Voicu and Vasile (2014, p. 94) conclude that cultures of life satisfaction 'not only exist but also travel'.

Unobserved re-migration is another potential source of bias. Assuming that especially individuals who are dissatisfied with their life in the destination country have a tendency to go back to their country of origin, our results might be biased upwards. The literature on return migration is very scarce and inconclusive. One of the few studies focuses on Turkish migrants and return migrants. Using the 2,000 Families study, a large survey of Turkish migrants from the peak labour migration period, (Baykara-Krumme & Platt, 2016) find that not only migrants but also return migrants experience higher life satisfaction in old age than stayers. Regarding return migrants in Romania, (Bartram, 2013b) finds that they report lower happiness levels than migrants who have not returned. These inconclusive findings suggest that unobserved re-migration might indeed be a potential source of bias in our results.

Finally, recent studies have shown that macrolevel conditions can play an important role in determining SWB (e.g., Akay et al., 2016; Bonini, 2008; Sand & Gruber, 2016). Future research should place special focus on the political and economic context in both the destination and origin countries. Apart from that, further studies with other migrant populations are needed to see whether the results for Eastern European migrants who migrated to a wealthier Western European country also hold for different migration contexts.

#### **4.8 Conclusion**

In this study, we addressed the question whether migration from Eastern Europe to a wealthier Western European country pays off in the long run. From a financial point of view the answer to this question is: Yes, it does. In all of the three destination countries the PPP-adjusted household income of Eastern European migrants is significantly higher than the one of stayers with similar characteristics. In contrast, the income of migrants does not signifi-

cantly differ from the income of similar natives. Apart from income, we drew on a second dependent variable to gain a more comprehensive understanding of the long-term consequences of migration: SWB is a non-pecuniary measure that could reflect the real economic and perceived welfare gains of immigration. Overall, our results suggest that migrants fare better than similar stayers in the long-run. However, on average, they do not reach the well-being levels of natives, which is in line with previous research. The country comparison showed that migrants' gain in income does not translate into an equivalent gain in SWB across all destination countries. The well-being of Eastern migrants to Sweden is not significantly different from the one of similar stayers in Poland and the Czech Republic. This could be related to processes of adaptation and growing aspirations. Additionally, migrants who have resided in the destination country for a long time might experience a change or extension in their frame of reference: from stayers to natives or maintaining stayers and adding natives. A comparison between the three destination countries suggested that the relative income position within the country of destination plays a decisive role in determining good well-being. Migrants gain SWB compared to similar stayers once they achieve income levels that are higher than the average income of stayers and close to or higher than the average income of natives.

Bartram (2013b, pp. 408-409) notes: 'Many migrants believe that gaining entry to a wealthier country will improve their lives, but insofar as "improvement" would include greater happiness this belief might simply be misguided (...)'. The results of our study support this hypothesis. In one of the three Western European destination countries, the SWB levels of Eastern European migrants are not significantly higher than the SWB levels of similar stayers several years after migration. So, further research is needed to identify a possible causal relationship between migration and well-being and to shed light on other relevant micro- and macrolevel factors that determine the long-term impact on migrants' well-being.

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## 4.10 Appendix

Table A-4.1: Results of the endogenous treatment regression

<b>Probit regression</b>		
Age	-0.002	(0.01)
Female (ref.: male)	0.068	(0.08)
Years of education	0.081***	(0.01)
Number of books at the age of 10	0.119**	(0.03)
Country of birth: Poland (ref.: Czech Republic)	1.341***	(0.10)
Constant	-3.837***	(0.41)
<i>Pseudo R</i> <sup>2</sup>	0.2047	
<b>Linear regression</b>		
<b>CASP</b>		
Age	-0.042***	(0.01)
Female (ref.: male)	-0.508***	(0.14)
Years of education	0.320***	(0.03)
Married, living together (ref.: other marital status)	0.747***	(0.15)
Having children (ref.: no children)	0.489	(0.31)
Employment status: (ref.: retired)		
(Self-)Employed	-0.195	(0.21)
Unemployed	-2.902***	(0.43)
Other	-2.698***	(0.30)
Number of chronic diseases (ref.: none)		
One	-1.010***	(0.17)
Two or more	-2.631***	(0.17)
Country of birth Poland (ref.: Czech Republic)	1.076***	(0.27)
Immigrants in AT/DE/SE (ref.: stayers)	-0.604	(2.23)
Wave fixed effects	yes	
<b>Migration</b>		
Age	-0.002	(0.01)
Female (ref.: male)	0.079	(0.08)
Years of education	0.082***	(0.01)
Number of books at the age of 10	0.110**	(0.04)
Country of birth Poland (ref.: Czech Republic)	1.382***	(0.10)
Constant	-3.879***	(0.41)
<i>N</i>	7,009	
Wald test of indep. eqns. (rho = 0): chi2(1) = 1.53 Prob > chi2 = 0.22		

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01; standard errors in parentheses

Source: SHARE release 6.0.0 data

## **5 The Impact of the European Refugee Crisis on the Well-Being of Older Natives – A Matter of Perception?**

This paper was submitted to the European Sociological Review and is single-authored.

### **5.1 Introduction**

In recent years, international migration has increased significantly and is an important influencing factor for the demographic composition of countries. Moving abroad—especially by force, conflict, or war—has consequences with regard to the migrants themselves, but also to the societies they move to. In 2015, more than one million people—mostly asylum seeking refugees from Syria, Afghanistan, and Iraq—made their way to the European Union (Connor, 2016). Even though the conflict in Syria and other regions of the world had already caused considerable numbers of refugees before, the year 2015 became the landmark of the so-called European “refugee crisis” (Georgiou & Zaborowski, 2017). Despite its negative connotation, the term “crisis” has been used widely in public, media, and academia to refer to Europe’s refugee influx in 2015. The repeated news about rescued or sinking refugee boats in the Mediterranean Sea in 2015 or the ramifications in the political sphere in many countries and at the EU level can certainly be described as a refugee crisis in Europe.

In May and June, the European Commission discussed assigning refugee distribution quotas for countries. The first security measures along the Channel Tunnel and the Hungarian border were established in June and July. The month of July marked an important political milestone because the revised Asylum Procedures Directive took effect and the EU member states adopted the Resettlement Scheme. The former agreement comprises a set of regulations on how to handle asylum applications. The latter entails the commitment to resettle more than 22,000 persons in need of international protection from Greece and Italy to other European countries. From then on, there was increasing public attention on the refugee matter and the numbers of asylum seekers skyrocketed. Public interest particularly spiked in August and September when German Chancellor Merkel announced to provide refuge to all newcomers and when the picture of the stranded corpse of Syrian boy Alan Kurdi was released (Connor, 2016; European\_Commission, 2016; European\_Parliament, 2017; Georgiou & Zaborowski, 2017; Greussing & Boomgaarden, 2017; Mortensen, 2016). In spring, summer, and fall of 2015—the period under review in this study—the media discourse in the European countries

was very diverse, ranging from promoting a welcome culture (e.g., in Germany) to a complete walls-up policy (e.g., in Hungary).

While a substantial body of migration-related studies compare the well-being of migrants with the native population in the countries of destination and/or stayers in the countries of origin (e.g., Bartram, 2011, 2013; Gelatt, 2013; Hadjar & Backes, 2013; Sand & Gruber, 2016), this work focuses on the impact of immigration on the well-being of the native population in their respective destination countries. To date, most of the extant research on the impact of immigration on natives has examined objective and economic outcomes such as wages or income and employment in the labor market (e.g., George J. Borjas, 2003; Card, 2001; Dustmann, Fabbri, & Preston, 2005; Ottaviano & Peri, 2012). These studies demonstrate that immigration can have adverse, none, or slightly beneficial effects on natives' wages and employment. This is mainly dependent on the skill set of natives and competing migrants. Since income and employment measures are correlated with personal indicators of well-being, it can be expected that immigration might also be correlated with them (Betz & Simpson, 2013). However, well-being has the advantage that it is also observable for the not economically active population.

There are at present three noteworthy studies that explore the welfare impact of immigration by using a self-assessed and non-economic outcome measure: subjective well-being (SWB) (Akay, Constant, & Giulietti, 2014; Betz & Simpson, 2013; Ivlevs & Veliziotis, 2015). They operationalize immigration by the absolute number of immigrants, proportion, or inflow rate per geographical unit in a given country. Their focus is on voluntary and economic migrants. While Betz and Simpson (2013) and Akay et al. (2014) find a positive association of immigration with natives' SWB, Ivlevs and Veliziotis (2015) detect an age-dependent impact of immigration from Eastern Europe to the UK after the EU enlargement (positive among younger and negative among older natives). The positive results of these studies are explained by potential labor market benefits from migration (e.g., lower prices of goods and services), immigrants' degree of assimilation, and affirming diversity. Among older age groups, there might be concerns about the provision of public services or skepticism towards diversity (Ivlevs & Veliziotis, 2015).

The aim of this study is to explore the impact of the large migrant flow caused by the European refugee crisis in 2015 on older people's well-being in 10 European countries (Austria, Belgium, Czech Republic, Denmark, France, Germany, Italy, Slovenia, Spain, and Sweden). Drawing on Set-Point Theory, I consider the refugee crisis as an exogenous event in terms of

its timing that may have affected respondents' SWB. It is defined by the period of its salience in the media, which coincides with the highest refugee influx. I argue that SWB is a useful measure to assess the real and perceived impact of immigration on personal welfare because it might represent people's concerns and expectations as well as their perceptions, sentiments, and attitudes about the newcomers. The public learned about the event predominantly through national media. Since media coverage can reflect, reinforce, or frame the perceptions of society, SWB could be associated with domestic media coverage—even more than with the refugee count. By running this analysis in a cross-national setting with panel data from the Survey of Health, Ageing and Retirement in Europe (SHARE), I am able to account for country differences in the way the refugee influx is perceived.

I contribute to existing research by focusing on older natives as the social group with the highest news consumption and voter turnout. Apart from that, my identification strategy is based on applying difference-in-differences to estimate the over-time change in SWB of respondents who were interviewed when the migrant crisis was salient in the media compared to the over-time change of those who were interviewed before (i.e., average treatment effect). The estimator can be applied to all countries, as well as to show cross-national variation in effects. Overall, the results point to an adverse, but insignificant, influence of the refugee numbers on SWB. In contrast, by focusing on respondents who were interviewed when the refugee influx was salient in the media, I detect heterogeneous effects. While in some countries the effect is positive, it is negative in others. The effect pattern corresponds to country differences in media coverage. A positive effect can be associated with a “favorable”, a negative effect with an “unfavorable”, and no effect with a “mixed” way of reporting. These findings may have implications for people's voting behavior and attitudes towards certain immigrant groups.

## **5.2 Subjective Well-Being: Theory and Application**

Within the social sciences, good well-being is characterized by a positive state of mind and high levels of life satisfaction (Cummins, Lau, & Strokes, 2004). According to Ormel, Lindenberg, Steverink, and Verbrugge (1999), key personal resources that are associated with well-being are physical and mental health, education, income, and social ties. Well-being affects health, productivity, and sociability (De Neve, Diener, Tay, & Xuereb, 2013). Life satisfaction represents the cognitive-judgmental component of SWB and is highly idiosyncratic (E. Diener, Emmons, Larsen, & Griffin, 1985). “It is important to point out that the

judgment of how satisfied people are with their present state of affairs is based on a comparison with a standard which each individual sets for him- or herself; it is not externally imposed” (E. Diener et al., 1985, p. 71). Despite its subjectivity, this measure has been considered as having appropriate reliability and validity among researchers (Ed Diener, Suh, Lucas, & Smith, 1999). According to (Ivlevs & Veliziotis, 2015), it can serve as an indicator to estimate the real and perceived impact of immigration on personal welfare.

The central proposition of Set-Point Theory is that individuals’ SWB levels are relatively constant over time. They are determined by personality traits and other factors that are hereditary or determined in early life (Ed Diener et al., 1999; Bruce Headey, 2008; B. Headey & Wearing, 1989; Lucas, 2007). However, specific events in life may cause substantial deviations. While slight deviations within the individual are normal, favorable experiences in life (e.g., marriage, lottery win, wage increase) and adverse life events (e.g., death of a close confidant, unemployment, financial crisis) may change personal SWB levels temporarily or even in the long term. The magnitude and direction depend on the severity of the event and the domain (Ed Diener et al., 1999; Easterlin, 2005; Bruce Headey, 2008; Bruce Headey, Glowacki, Holmstrom, & Wearing, 1985; Lucas, 2007). For instance, Lucas, Clark, Georgellis, and Diener (2003) have shown that losing a spouse changes the SWB levels by about -0.9 points in the first year of widowhood and getting married by about +0.3 points in the first year of marriage (on a 10-point scale).

Suh, Diener, and Fujita (1996) found that the SWB change is most visible for events that occurred up to three months ago. Easterlin (2005) claims that events in the economic domain usually do not have a long-lasting impact on the SWB of people. For instance, people have the tendency to revise their aspirations (i.e., the so-called process of adaptation) after a substantial increase in material standard of living. Adaptation offsets all SWB gains (Clark, Frijters, & Shields, 2008; Easterlin, 2005). Therefore, their SWB levels return to baseline over time. The situation looks somewhat different in non-economic domains such as health, well-being, and family. Getting married or divorced or becoming seriously ill may have a permanent influence on the SWB levels of those who are affected, which could lead to a re-adjustment of their set point. Among people aged 50+, SWB and age can describe a slight upward trend, followed by a decline due to health reasons. So, SWB might not be as constant anymore (Frijters & Beatton, 2012). For this reason, this analysis has to account for age and health.

## **Application**

Within the scope of this work, the refugee crisis in 2015 is considered an important event in the social domain that—apart from having a huge impact on those who migrated—may have had an impact on the well-being of people all around Europe. I assume exogeneity in terms of its timing and the timing of respondents' interviews. Since the interview appointment depends on the availability of the respondent, the date of the interview are considered random. In contrast to voluntary or economic migration, the timing of the inflow can be considered exogenous as well because refugees are not—or at least less—selective concerning the time of arrival, size of migration flow, skill composition, and geographic sorting (George J Borjas & Monras, 2017).

Unlike with severe life events, the SWB deviations from the set point are expected to be short-term and relatively small in magnitude. The impact of the event might still be strong enough to have societal relevance. Even though the observation period is too short to examine whether peoples' SWB levels return to their set point, it captures the time of the highest visibility of any deviations (i.e., summer and fall of 2015). This is in line with studies that stress that an SWB effect can be detected best during or shortly after an event (Ed Diener et al., 1999; Ivlevs & Veliziotis, 2015; Suh et al., 1996).

Apart from examining the influence of the number of refugees on respondents' SWB, my primary objective is to identify the impact of the migrant crisis by defining a period of high and low media attention to the topic (i.e., treatment and control period) and by drawing on differences in the way of reporting. SWB and national media coverage as perception indicators might be associated with each other, but the direction is unclear. According to Framing Theory, media can capture societal trends and reflect perceptions; but it can also focus attention on specific events and reinforce, or influence people's perceptions of topics and issues depending on how they are presented ("framing"). Frames represent cultural views and values (Entman, 1993). Extant research has confirmed the media's ability to distort people's perceptions of immigrant groups and their size (Herda, 2010; Schemer, 2012).

Since the public learned about the refugee crisis via domestic media (Greussing & Boomgaarden, 2017), it is likely that SWB is associated with the way refugees were presented in the media—even more than with the actual influx in numbers. The refugee crisis could have been perceived either as an adverse event that involves security concerns, increased feelings of threat, and many economic and social costs or as a favorable experience



that carries future potentials and entails the chance to help (Czymara & Schmidt-Catran, 2017; Fernández-Huertas Moraga & Rapoport, 2014; Greussing & Boomgaarden, 2017). Older people might have been most affected because they represent the social group with the highest news consumption (Papathanassopoulos et al., 2013; Robinson, Skill, & Turner, 2004). Extant research has shown that they are more skeptical about immigration than younger people (Gorodzeisky, 2011; Ivlevs & Veliziotis, 2015; Strabac, Aalberg, & Valenta, 2014). Since they are also the social group with the highest voter turnout, they are of special importance to policy makers (Melo & Stockemer, 2014).

Taking this into consideration, I anticipate that SWB is adversely influenced by the number of refugees. Moreover, by drawing on media coverage as perception indicator, I expect effects that are associated with the way of reporting among those who were interviewed when the refugee crisis received high media attention.

### **5.3 Data and Methods**

This study uses waves 5 (2013) and 6 (2015) of the Survey of Health, Ageing and Retirement in Europe (SHARE) (Börsch-Supan, 2017). The fieldwork of both waves ranged from February to November of the respective year. Wave 6 coincided with the refugee crisis. SHARE was started in 2004 and is a multidisciplinary panel study on health, aging, socioeconomic status, and social networks of respondents aged 50 and over from 20 European countries and Israel (Börsch-Supan et al., 2013). The survey is administered biennially via computer-assisted personal interviews (CAPI). I restricted the sample to all individuals aged 50 to 85 participating in wave 5 and wave 6 that were born native and citizens of the country where interviewed. Moreover, I included only countries that participated in both waves with a sufficient number of cases interviewed from July 2015 on (treatment group;  $n \geq 100$ ) and before July 2015 (control group;  $n \geq 100$ ). Therefore, the analysis is restricted to Austria, Belgium, Czech Republic, Denmark, France, Germany, Italy, Slovenia, Spain, and Sweden. The overall sample consists of 25,362 individuals.

#### **Dependent Variable**

The dependent variable SWB is measured by a single item measure based on the OECD Better Life index (OECD, 2013) that asks respondents to rate their overall satisfaction with life on a scale from 0 to 10, with 0 meaning completely dissatisfied and 10 completely satisfied with life (see also E. Diener et al., 1985). The question wording in SHARE is: “On a scale

from 0 to 10 where 0 means completely dissatisfied and 10 means completely satisfied, how satisfied are you with your life?”

#### **Independent Variables**

The control variables I included were demographic indicators such as age (in months), age squared, sex, marital status, and household size; SWB-related personal resources such as socioeconomic status (education in years, log income adjusted by household size, employment status), physical health (number of chronic diseases), mental health (binary indicator for a clinical diagnosis of depression, based on the EURO-D scale (Prince et al., 1999)), and number of children. Controlling for age trends and health indicators among older people is of special importance because a health decline can cause a permanent decline in SWB. The monthly number of first-time asylum applicants per country served as an approximation for the refugee influx. The numbers were acquired from Eurostat (2017) per month. This was necessary because all respondents were assigned the monthly value of the number of asylum seekers of the month they were interviewed in (i.e., the numbers from the interview month in 2013 and 2015 respectively). In order to control for a potentially confounding Europe-wide effect of the Greek financial crisis in early summer 2015, I accounted for the monthly change in the stock index (i.e., share price deviations per month) of each country (Panageotou, 2017). This was done by assigning the value of the stock index difference between the current and the previous month to respondents' interview month (OECD, 2017). Apart from that, I included country dummies and seasonal effects (i.e., categorical indicator for the season a respondent was interviewed in). Finally, a treatment indicator and a time/wave variable were added to apply difference-in-differences. The treatment indicator was defined by the time of interview in 2015. The year 2013 was used to show the change in SWB. The treatment group consists of respondents that were exposed to the treatment (i.e., interviewed when the refugee crisis was salient in the media: July to November 2015) and the control group of those that were not exposed to the treatment (i.e., interviewed before the salience of the refugee crisis in the media: February to June 2015).

The determinants of the treatment assignment are as follows. In July, the Asylum Procedures Directive came into effect and the Resettlement Scheme was adopted by all EU member states (see Introduction). Apart from that, Georgiou and Zaborowski (2017) published a content analysis about the media coverage of the migrant crisis in notable newspapers in several European countries, in which the authors identify the period between July and December

as the period that was marked by the salience of the European refugee crisis in the media. They distinguish between the three phases “Careful tolerance” (July to August), “Ecstatic humanitarianism” (September to October), and “Fear and securitization” (November to December). The last phase is hardly reflected in the data because fieldwork ended in November 2015. Besides, neither start nor end represent any sharp threshold.

## Methods

My analysis is based on difference-in-differences (DiD) methods using pooled ordinary least squares (OLS) models with two observations per respondent and individual-level clustered robust standard errors. This method estimates the average treatment effect on the treated. The first difference eliminates all time-invariant group characteristics and shows the average within-change over time, whereas the second difference eliminates all group-invariant characteristics and shows the average effect of the treatment compared to non-treatment over time. To interpret the estimates as a causal effect, this strategy requires that the outcome variable follows the same trend in the treated and untreated groups in the absence of the treatment (parallel trends assumption) (Brüderl & Ludwig, 2014; Wooldridge, 2012). DiD takes care of unobserved heterogeneity at the individual level because time-invariant characteristics like person-specific response behavior or personality traits are subtracted from the equation (Brüderl & Ludwig, 2014). The latter is especially important because the SHARE data do not include character-related characteristics. This means that personality traits are assumed to be stable across the observation time.

I applied two analytical steps. First, I examined the influence of the number of asylum seekers on SWB. Second, I estimated the effect for those who were interviewed when the refugee crisis received high media attention compared to those who were interviewed before. The DiD estimator describes the difference between the average change over time in the treatment group and the average change over time in the control group:

$$DiD = (\bar{Y}_{1,t} - \bar{Y}_{1,t-1}) - (\bar{Y}_{0,t} - \bar{Y}_{0,t-1})$$

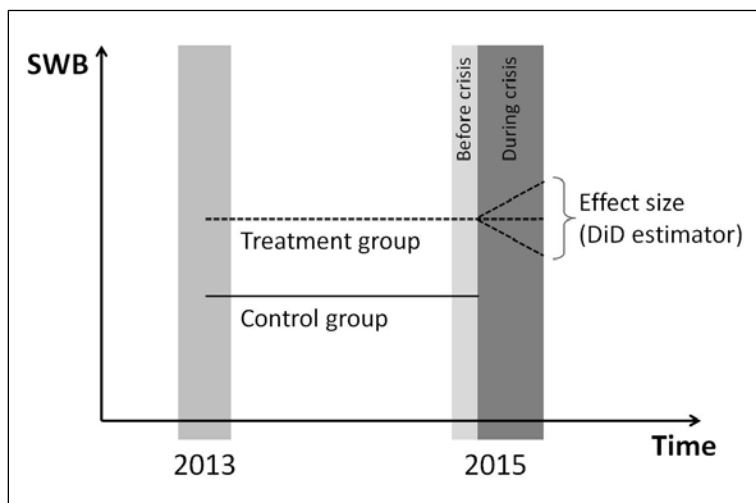
Subscript 1 indicates treatment and 0 non-treatment. The corresponding regression framework is:

$$Y_{i,t} = \beta_1 + \beta_2 Treat_i + \beta_3 Time_t + \beta_4 (Treat \times Time)_{i,t} + \beta_5 X_{i,t} + \varepsilon_{i,t}$$

$Y_{i,t}$  is self-reported SWB of individual  $i$  at time  $t$ .  $Treat_i$  describes if an individual  $i$  belongs to the treatment group or not and  $Time_t$  in which year/wave the observation took place. The

interaction of both is measured by  $(Treat \times Time)_{i,t}$ . The corresponding coefficient  $\beta_4$  provides the difference between the change over time in the treatment group and the change over time in the control group (i.e., DiD estimator).  $X_{i,t}$  refers to a series of SWB-relevant time-variant covariates (defined above) measured for individual  $i$  at time  $t$ .  $\varepsilon_{i,t}$  represents the time-variant error term.  $\beta_1$  stands for all observed time-invariant characteristics and drops out of the equation (Brüderl & Ludwig, 2014). Since Set-Point Theory holds that individuals have more or less stable SWB levels over the life course, Figure 5.1 shows how the SWB change could look like under the parallel trends assumption.

Figure 5.1: SWB change before and during refugee crisis



Note: Own illustration

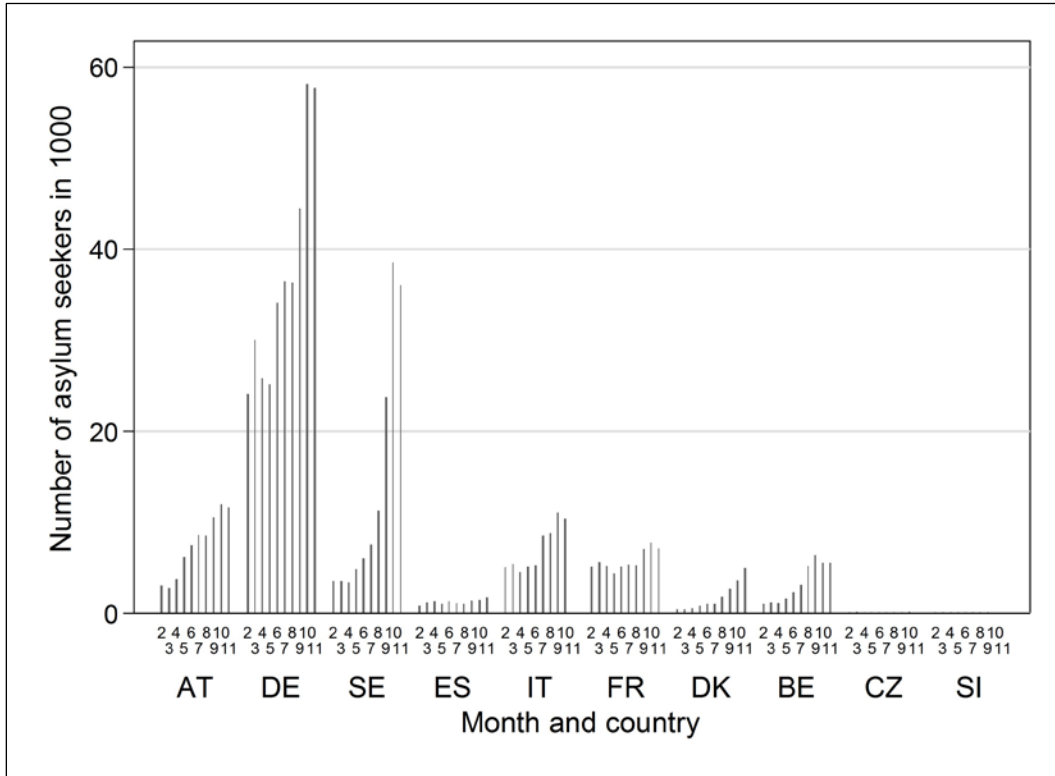
In order to test the validity of the identifying assumption (i.e., no correlation between treatment status and outcome), I conducted a “placebo test” with SHARE waves 4 (2011) and 5 (2013). Lechner (2011) and Jones (2007) describe this approach as follows. In order to make the parallel trends assumption more plausible, it is beneficial to have several pre-treatment periods. Then, it can be pretended that the treatment happened in an earlier wave. Therefore, I ran all regression models by comparing the outcome change from one pre-treatment wave to the subsequent pre-treatment wave to rule out similar effects that might be interpreted as selection bias.

## 5.4 Refugee Influx and Media Coverage

Descriptive results in Figure 5.2 show that the countries most affected by the refugee influx were Austria, Germany, Italy, and Sweden. While Italy was relieved by handing its role as main port of entry over to Greece, Austria functioned as a transit country, and Germany and

Sweden became the main destination countries. The amount of refugees in the Czech Republic and Slovenia was marginal.

Figure 5.2: Number of first-time asylum applicants per month and country in 2015



Source: Eurostat (2017)

### Country Classification by Tendency of Media Coverage

Media coverage functions as an indicator of how the migrant crisis was perceived in domestic media. The following country classification is based on content analyses of reports about the refugee crisis in renowned international newspapers and other media (mainly print, partly online). These analyses were conducted by institutions such as the Council of Europe, UNHCR, or national research institutions (Aisch & Almukhtar, 2015; Berry, Garcia-Blanco, & Moore, 2015; Cendrowicz & Paterson, 2015; Chouliaraki & Zaborowski, 2017; Dugulin, 2015; Georgiou & Zaborowski, 2017; Greussing & Boomgaarden, 2017; Haller, 2017; Jørgensen & Thomsen, 2016; Kogovšek Šalamon & Bajt, 2016; Mortensen, 2016; Pinto, 2016; Rheindorf & Wodak, 2017; Schmidt et al., 2016; Vezovnik, 2017; White, 2015). For the most part, political decision-making and media coverage reflected the same or similar views (Georgiou & Zaborowski, 2017). These views were mainly characterized by the discourse between care (i.e., humanitarianism frame) and protection (i.e., securitization frame), presenting refugees either as victims or as threats (Chouliaraki & Zaborowski, 2017). The

following paragraphs and Table A-5.1 present a compilation of the tendency of national media coverage classified by country.

*Favorable Tendency of Media Coverage*

Except for Austria, the countries that were most affected by the inflow (Germany, Italy, Sweden) can be characterized by an overall favorable, empathetic, supportive, humanitarian, but also discursive way of reporting about the topic. The majority of all examined newspapers and media reports presented the refugees as victims and preferred to use the terms “refugee” and “asylum seeker”, suggesting the involuntary nature of migration. At the time when Chancellor Angela Merkel pledged to provide refuge to all incoming refugees, news coverage was particularly welcoming. The open and humanitarian character of reporting might have increased compassion and the willingness to help. All of the three countries complied with the distribution quota of the Resettlement Scheme.

*Unfavorable Tendency of Media Coverage*

In contrast, the media coverage in the Czech Republic, Denmark, France, and Slovenia was comparably unfavorable, protective, hostile, populist, and dominated by security themes. Refugees were mostly presented as a danger to security and economic burden. This might have caused an increase in perceived threat among the population. None of the countries were in favor of or in agreement with the Resettlement Scheme. Denmark was exempt from the distribution quota and all connected duties. The Czech Republic voted against it. In the two Eastern European countries, the de facto immigrant inflow was especially minimal.

*Mixed Tendency of Media Coverage*

Finally, Spain and Belgium showed a mixed tendency in terms of news coverage. Austria experienced a shift from open to defensive as the crisis developed, which is why it was assigned to this group as well. While Austria and Belgium complied with the Resettlement Scheme, Spain did not.

## **5.5 Results**

Table 5.1 provides an overview of the sample separated by treatment and control group. It can be seen that, on average, respondents' reported SWB levels increased by 0.1 life satisfaction points in both groups from 2013 to 2015. The average number of asylum seekers rose from one wave to the next and was highest for the treatment group in wave 6. Concerning demographic, socioeconomic indicators, and health, both groups are very similar, with one exception: A greater share of the respondents in the treatment group was employed and there-

fore slightly younger. One explanation is that more of them were interviewed in the treatment period (i.e., between July and December) because they were harder to reach for interviewers than retired people. This interpretation challenges the assumption of exogenous assignment into treatment and control group. To diffuse such concerns and assess the robustness of the findings, I replicated the analyses without the employed population. The effects are robust.

Table 5.1: Summary statistics (Means or percentages, standard deviations in parenthesis)

Variable	Control group	Treatment group
Life satisfaction	7.9 (1.6)	8.0 (1.6)
2013	7.8 (1.6)	7.9 (1.7)
2015	8.0 (1.6)	8.1 (1.6)
Number of asylum seekers	3,715 (6,092)	9,774 (14,598)
2013	2,472 (2,599)	3,243 (3,377)
2015	4,958 (8,023)	16,306 (18,153)
Age	66.4 (8.3)	64.9 (8.3)
Female	53%	52%
Marital status		
Married or reg. partnership	72%	75%
Separated or divorced	11%	11%
Widowed	11%	9%
Single	6%	5%
Number of children	2.1 (1.3)	2.1 (1.3)
Household size	2.1 (0.9)	2.2 (0.9)
Years of education	11.6 (4.1)	11.7 (4.4)
Log income (adjusted by HH size)	5.6 (2.2)	5.4 (2.1)
Employment status		
Retired	64%	55%
(Self-)Employed	26%	35%
Unemployed	3%	3%
Other	7%	8%
Physical health: Number of chronic diseases		
None	37%	39%
One	32%	31%
Two or more	32%	30%
Mental health: Depression	23%	20%
N (obs.) = 50,724	40,188	10,536

Table 5.2 presents the DiD regression results. In the first step, I examined the impact of the rising number of asylum seekers on the over-time change in SWB. The interaction term (i.e., DiD estimator) in Model 1 shows that the refugee inflow had a slightly negative influence on the SWB of natives. An inflow of thousand refugees implied a decrease of about -0.008 life satisfaction points. However, the results are not significant at the 0.05 level.

In the second step, I focused on the SWB change of respondents who were interviewed in the period of the highest media attention to the migrant crisis, which coincided with the highest refugee influx (i.e., treatment group). The control group represents all respondents that were interviewed in the period with less media attention to the topic and lower refugee num-

bers. The interaction term of the treatment and time dummies identifies the treatment effect by comparing the SWB change over time between both groups.

Model 2 provides an insignificant DiD estimator, which means that the SWB change from wave 5 to wave 6 did not differ between treatment and control group. Both groups experienced a fairly parallel trend. However, a closer look at Figure 5.3a reveals heterogeneous effects across countries. The observed pattern might be related to national differences in the way the refugees were perceived. By drawing on the country clusters based on tendency of media coverage, I detected the following associations.

Table 5.2 shows that, on average, the SWB impact was significantly positive (+0.176 life satisfaction points;  $p < 0.01$ ) for the treated in the group of countries with “favorable” reporting (i.e., Germany, Italy, Sweden; Model 3) and significantly negative (-0.142 life satisfaction points;  $p < 0.01$ ) for the treated in the group of countries with an “unfavorable” news coverage (i.e., Czech Republic, Denmark, France, Slovenia; Model 4), holding all else constant. As a reference, getting divorced had an impact of about -0.5 life satisfaction points ( $p < 0.001$ ). The largest effects were found in Germany (+0.256;  $p < 0.05$ ), Sweden (+0.180;  $p < 0.1$ ), the Czech Republic (-0.347;  $p < 0.01$ ), and Slovenia (-0.477;  $p < 0.05$ ). There was no effect within the group of countries with a “mixed” way of reporting (i.e., Austria, Belgium, Spain; Model 5). I also ran Models 2 to 5 using the interaction of the refugee numbers with time. The results are insignificant, but the direction is the same.

### **Placebo Test and Robustness Checks**

For the “placebo test”, Germany and Slovenia had to be excluded due to a lack of available treated cases that participated in both pre-treatment waves. Figure 5.3b shows that no similar effects could be identified in SHARE waves 4 and 5. This implies that there is no correlation between treatment status and outcome and that the parallel trends assumption is plausible.

As already mentioned, after excluding employed respondents, the results remained robust, which means that employed respondents did not cause any bias. In order to have an alternate control for the economic situation in Europe, I replaced the share prices indicator with OECD data on national consumer price expectations. The results are robust. Moreover, I made a clearer distinction between treatment and control group by removing the threshold month of July. The findings are robust as well (the results are available upon request).



5.5 Results

Table 5.2: Regression results of SWB on all covariates (standard errors in parenthesis)

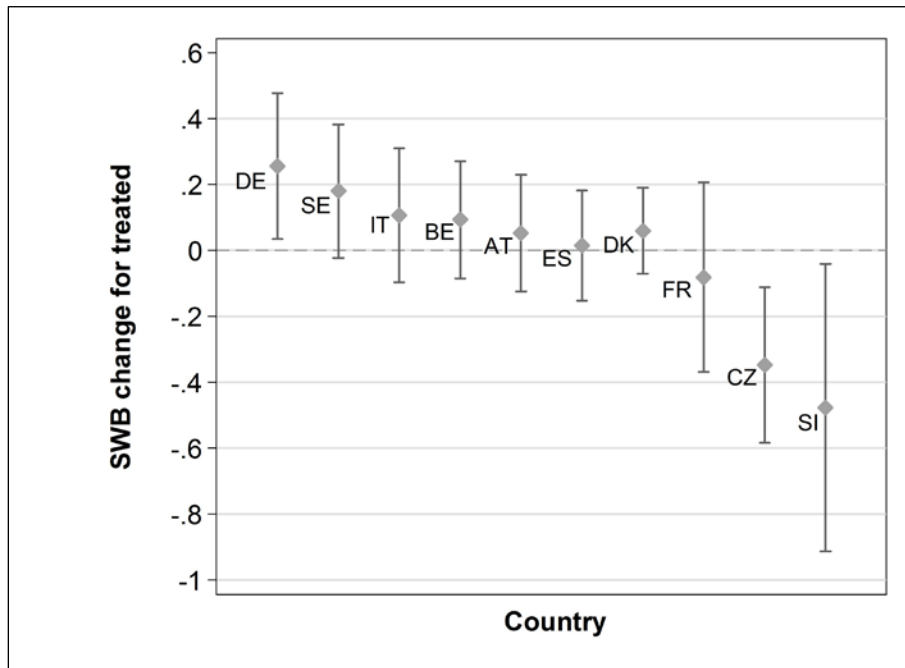
Variable	# of refugees		Media attention		
	Model 1: (Full sample)	Model 2: All countries (Full sample)	Model 3: Countries with favorable media cov. (DE, SE, IT)	Model 4: Countries with unfavorable media cov. (CZ, DK, FR, SI)	Model 5: Countries with mixed media coverage (AT, BE, ES)
Asylum seekers (in 1000)	0.012* (0.006)				
2015 (ref.: 2013)	0.149*** (0.015)	0.149*** (0.013)	0.089*** (0.025)	0.191*** (0.023)	0.149*** (0.021)
DiD: Asylum seekers*2015	-0.008 (0.005)				
Treatment group		-0.057* (0.024)	-0.070 (0.041)	-0.001 (0.046)	-0.094* (0.041)
DiD: Treatment*2015		0.019 (0.029)	0.176** (0.055)	-0.142** (0.053)	0.062 (0.049)
Age	0.067*** (0.016)	0.067*** (0.016)	0.101*** (0.028)	0.038 (0.027)	0.053 (0.028)
Age squared	-0.000*** (0.000)	-0.000*** (0.000)	-0.001*** (0.000)	-0.000 (0.000)	-0.000 (0.000)
Sex (ref.: male)	0.142*** (0.016)	0.142*** (0.016)	0.163*** (0.029)	0.150*** (0.027)	0.100*** (0.027)
Married/reg. p.ship (ref.)					
Separated/divorced	-0.541*** (0.032)	-0.541*** (0.032)	-0.569*** (0.066)	-0.481*** (0.050)	-0.588*** (0.054)
Widowed	-0.403*** (0.034)	-0.402*** (0.034)	-0.364*** (0.068)	-0.388*** (0.055)	-0.445*** (0.057)
Single	-0.496*** (0.040)	-0.497*** (0.040)	-0.540*** (0.075)	-0.389*** (0.067)	-0.543*** (0.067)
Number of children	0.027*** (0.007)	0.028*** (0.007)	0.014 (0.013)	0.057*** (0.012)	0.017 (0.010)
Household size	0.036* (0.016)	0.036* (0.016)	0.008 (0.033)	0.025 (0.025)	0.068* (0.027)
Years of education	0.017*** (0.002)	0.017*** (0.002)	0.012** (0.004)	0.030*** (0.004)	0.013*** (0.003)
Log household income	0.016 (0.008)	0.016 (0.008)	-0.003 (0.016)	0.008 (0.013)	0.042** (0.013)
Retired (ref.)					
(Self-)Employed	0.108*** (0.025)	0.108*** (0.025)	0.111* (0.044)	0.089* (0.042)	0.091* (0.042)
Unemployed	-0.475*** (0.054)	-0.477*** (0.054)	-0.823*** (0.112)	-0.447*** (0.099)	-0.278*** (0.075)
Other	-0.256*** (0.034)	-0.256*** (0.034)	-0.383*** (0.066)	-0.352*** (0.075)	-0.126** (0.047)
No chronic disease (ref.)					
One	-0.089*** (0.017)	-0.089*** (0.017)	-0.091** (0.029)	-0.100*** (0.029)	-0.071* (0.028)
More than one	-0.263*** (0.019)	-0.263*** (0.019)	-0.264*** (0.034)	-0.294*** (0.032)	-0.217*** (0.031)
Depression (ref.: none)	-1.131*** (0.021)	-1.131*** (0.021)	-1.073*** (0.037)	-1.107*** (0.035)	-1.208*** (0.036)
Share prices	0.001 (0.002)	0.000 (0.002)	0.001 (0.003)	0.006 (0.004)	-0.002 (0.003)
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Seasonal effects	Yes	Yes	Yes	Yes	Yes
Constant	5.629*** (0.556)	5.662*** (0.556)	4.417*** (0.964)	5.566*** (0.954)	6.074*** (0.965)
Observations	50724	50724	16096	18848	15780
R <sup>2</sup>	0.193	0.193	0.176	0.220	0.178
Adjusted R <sup>2</sup>	0.193	0.193	0.174	0.219	0.177
AIC	181583.7	181582.3	57638.1	68936.7	54792.6
BIC	181875.2	181873.8	57838.0	69148.5	54991.9

Notes: coef. based on clustered std.-errors (indiv.) and two-tailed tests:

\* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001; Source: SHARE

5.5 Results

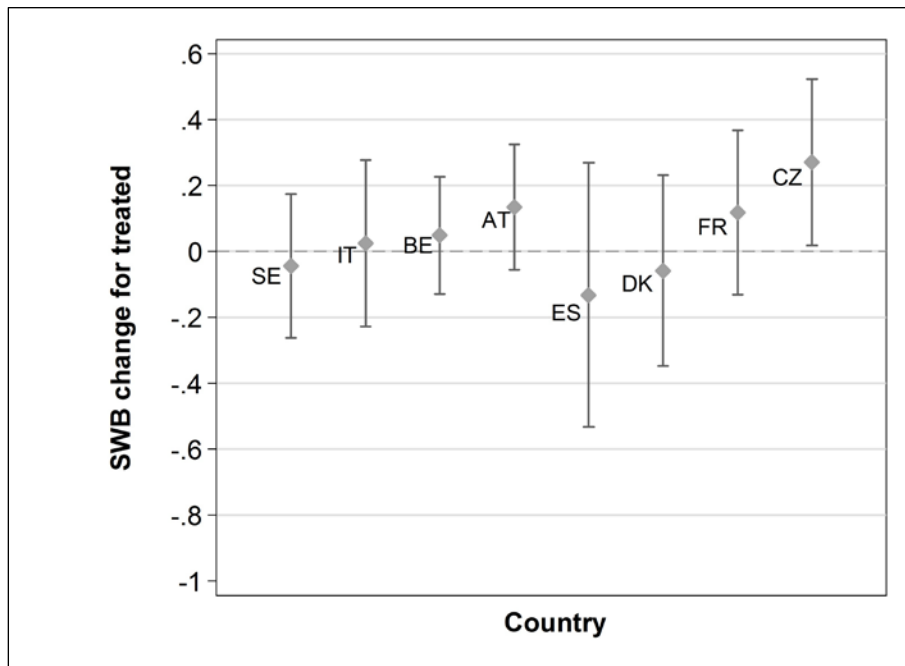
Figure 5.3a: SWB change for treatment group from 2013 to 2015 (DiD estimators per country; ref.: control group)



N (obs.) = 50,724

Note: DiD estimators with 95% confidence intervals and standard errors estimated from POLS regression models with individual-level clustered robust standard errors

Figure 5.3b: Placebo test: SWB change for treatment group from 2011 to 2013 (DiD estimators per country; ref.: control group)



N (obs.) = 32,886

Note: DiD estimators with 95% confidence intervals and standard errors estimated from POLS regression models with individual-level clustered robust standard errors

## 5.6 Summary and Discussion

In this study, I explored the impact of the European refugee crisis in 2015 on the SWB of older people in 10 European countries using SHARE data. Based on Set-Point Theory, I considered the influx of displaced people as an exogenous event that affected the SWB levels of people all across Europe. I used SWB to assess the real and perceived impact of immigration on personal welfare. The public learned about the refugee influx mainly through domestic media. Since media coverage can reflect, reinforce, or frame the perceptions of society, I argued that SWB could be associated with national media coverage—even more than with actual immigrant numbers. I ran my analysis in a cross-national setting, which allowed me to account for country-specific differences in the way the refugee influx might have been perceived.

I did not find a significant impact of the refugee numbers on SWB. However, there was a negative trend that could indicate that overall, older people are more concerned about immigration (Gorodzeisky, 2011; Ivlevs & Veliziotis, 2015; Strabac et al., 2014). By comparing the SWB change of respondents who were interviewed in the period of the highest media attention with those that were interviewed at the time of lower media attention, I detected heterogeneous effects that could be related to differences in national media coverage. Positive effects were associated with “favorable” and negative effects with “unfavorable” media reporting. These patterns might be interpreted as short-term deviations from respondents’ set point. No effects were associated with “mixed” news coverage. This is consistent with research on the impact of media on people’s perceptions and attitudes (De Vreese & Boomgaarden, 2006; Greussing & Boomgaarden, 2017; Schemer, 2012). Although there is a probable association between media coverage and SWB, the direction remains unclear.

An explanation of the SWB-dampening impact of the refugee crisis in the cluster of countries with “unfavorable” news reporting could be that people in these countries were more skeptical towards the refugee influx and worried about not being able to handle increasing masses of immigrants. They might have rather perceived the costs than benefits and considered the newcomers as a burden to the welfare state, competitors in the health care system, and threat to social cohesion (Fernández-Huertas Moraga & Rapoport, 2014; Gorodzeisky, 2011; Ivlevs & Veliziotis, 2015; Strabac et al., 2014). Media and politicians advocated defensive measures and isolation, maybe due to experiences with certain immigrant groups. While France has had an ambivalent relationship with its large Muslim population, the Czech Re-

public and Slovenia have not had any comparable experiences (Giry, 2006). Denmark seems to have tried to be exempt from accepting certain immigrant groups. In addition, in all four countries and especially in the two Eastern European ones, the inflow expressed in numbers of asylum seekers was very small. This implies that people seem to have reacted more to the perceived inflow based on media reports than actual numbers of incoming refugees (Herda, 2010). In line with Blumer's (1958) "abstract image" concept, the fairly threatening image of unknown intruders conveyed by the media and politicians might have been reflected in people's lower SWB ratings. A completely different picture emerged in the cluster of countries with "favorable" media coverage. Especially the phase of "ecstatic humanitarianism" from September to October was dominated by a positive hype about the refugees in the media and partly among politicians, first and foremost in Germany (Georgiou & Zaborowski, 2017; Haller, 2017). Refugees were presented as victims that are in need of protection and support. Sympathy, empathy, compassion, maybe the feeling of gladness to be better off, and the "We can do it"-attitude proclaimed by Chancellor Merkel might have boosted the spirits, willingness to help, and chance for social commitment.

The observed short-term SWB increase of about +0.17 points in the countries with "favorable" reporting or the decrease of about -0.14 points in the countries with "unfavorable" reporting is considerable and may have its implications. However, in the longer term, it does not have the magnitude of personal events such as marriage (+0.3) or widowhood (-0.9) (Lucas et al., 2003). It is likely that people's SWB levels returned to the set point relatively fast, but this cannot be measured unless the next wave data are available.

### **Limitations**

Although my results and interpretations suggest media effects that carried over to SWB, it remains unclear whether domestic media was influenced by current societal trends and perceptions, reflected realities, or distorted them. In some countries, I found large SWB effects, but the actual refugee influx was low. So, either the media made an issue of a non-existing problem or the results are due to other factors and mechanisms (e.g, concerns about future problems if these countries have to accept more refugees). Even though media coverage can represent cultural views and values (Entman, 1993), my research does not take into account the historical, political, and socio-cultural context of a country; or factors such as openness to diversity or experience with specific immigrant groups.

In terms of endogeneity issues, Borjas and Monras (2017) hold that refugee flows are exogenous in terms of timing, size, skill composition, and geographic sorting in the receiving country. The timing of the refugee crisis was likely to be random and independent from respondents' SWB levels in the destination countries. Geographic sorting was certainly not random because Germany and Sweden were the target countries for most refugees. In regard to treatment assignment, it is likely that not all respondents really knew about the refugee crisis. So, the observed treatment effect is to be interpreted as an intention-to-treat effect.

### **Concluding Remarks**

SWB can reflect perceptions, sentiments, and opinions about refugees, but also actual concerns and expectations about the future. Media coverage as a country-specific perception indicator plays an important role because of its association with SWB. Hence, researchers and policy-makers are advised to account for well-being outcomes and the tendency of media coverage in the event of large refugee inflows because they might indicate changes in people's voting behavior and their attitudes towards specific immigrant groups (Blumer, 1958; Brown, 1995; Herda, 2010; Ivlevs & Veliziotis, 2015; Kayitesi & Mwaba, 2014; Quillian, 1996; Schemer, 2012). In this respect, older people might be of special importance because they represent the social group with the highest news consumption and voter turnout (Melo & Stockemer, 2014; Papathanassopoulos et al., 2013; Robinson et al., 2004). Higher SWB levels among natives are associated with favorable perceptions about specific immigrant groups. Therefore, higher SWB levels may sponsor openness towards the other, reduce perceived threat, and eventually increase mutual understanding in all areas in which native and foreigners compete, such as labor market, health care, or housing.

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## 5.8 Appendix

Table A-5.1: Country classification by tendency of media coverage

Country	Tendency of media coverage about the European refugee crisis
DE	<p><i>Favorable</i></p> <ul style="list-style-type: none"> <li>• Liberal, welcoming, and supportive attitude towards refugees</li> <li>• High proportion of humanitarian narratives, less threat themes</li> <li>• Some reports about cultural and economic benefits of immigration</li> <li>• Government-supporting</li> <li>• Hardly representing left- and right-wing opinions</li> <li>• Over time, growing concern about rising refugee numbers</li> <li>• Using the terms “refugee” or “asylum seeker”</li> <li>• Compliance with Resettlement Scheme</li> </ul>
IT	<p><i>Favorable</i></p> <ul style="list-style-type: none"> <li>• Dominance of humanitarian themes and sympathetic narratives</li> <li>• Responsive way of reporting to alarmist public statements</li> <li>• Solidarity with refugees after Merkel’s announcement</li> <li>• Using the term “migrant”</li> <li>• Compliance with Resettlement Scheme</li> </ul>
SE	<p><i>Favorable</i></p> <ul style="list-style-type: none"> <li>• Welcoming and empathetic</li> <li>• High proportion of humanitarian themes</li> <li>• Immigration partly presented as socially and economically beneficial</li> <li>• Hardly any threat themes, but growing concern about rising refugee numbers</li> <li>• Encouraging legal channels of immigration and humanitarian aid</li> <li>• Using the terms “refugee” or “asylum seeker”</li> <li>• Compliance with Resettlement Scheme</li> </ul>
CZ	<p><i>Unfavorable</i></p> <ul style="list-style-type: none"> <li>• Predominantly anti-immigrant news coverage</li> <li>• More mentions of defensive measures (e.g., closing border) than humanitarian measures</li> <li>• Way of reporting in line with populist politicians</li> <li>• Media bias found to shape public opinion</li> <li>• Vote against Resettlement Scheme</li> </ul>
DK	<p><i>Unfavorable</i></p> <ul style="list-style-type: none"> <li>• Immigrants as economic burden and threat to welfare</li> <li>• Populist media story telling</li> <li>• Metacoverage (i.e., coverage not dealing with actual issue)</li> <li>• Exemption from Resettlement Scheme</li> </ul>
FR	<p><i>Unfavorable</i></p> <ul style="list-style-type: none"> <li>• More mentions of defensive measures (e.g., closing border) than humanitarian measures</li> <li>• Main concern of public debate on emotions of French natives</li> <li>• Differences among newspapers: empathy versus fear</li> <li>• Non-compliance with Resettlement Scheme</li> </ul>
SI	<p><i>Unfavorable</i></p> <ul style="list-style-type: none"> <li>• Refugees presented as threat to society, culture, and security</li> <li>• Mentions of racism, islamophobia, razor-wire fence, hate-speech</li> <li>• Media in accordance with security-oriented political elites</li> <li>• Rather solidary and caring civil society, but increasing fear of not being able to handle mass influx</li> <li>• Using the terms “migrant” or “refugee”</li> <li>• Non-compliance with Resettlement Scheme</li> </ul>

AT	<p><i>Mixed tendency (first favorable, then unfavorable)</i></p> <ul style="list-style-type: none"> <li>• Presentation of refugees as victims that are welcome and require help versus refugees as security threat and economic burden</li> <li>• Polarizing shift from promoting welcome culture and solidarity (until September) to anti-immigrant sentiments and defensive measures (from October on)</li> <li>• Selective reporting: little attention paid to refugee supporters from civil society</li> <li>• Mediatized debates about security measures</li> <li>• Compliance with Resettlement Scheme</li> </ul>
BE	<p><i>Mixed tendency</i></p> <ul style="list-style-type: none"> <li>• Partly polarizing, not well-grounded reporting style</li> <li>• Supportive public, unsupportive politicians</li> <li>• Non-compliance with Resettlement Scheme</li> </ul>
ES	<p><i>Mixed tendency</i></p> <ul style="list-style-type: none"> <li>• Slight variation in terms of threat and humanitarian themes</li> <li>• News coverage considers refugee crisis mainly as EU issue</li> <li>• Sympathetic to plight of refugees, but no further appeals</li> <li>• Using the term “immigrant”</li> <li>• Non-compliance with Resettlement Scheme</li> </ul>

Sources: Aisch and Almkhtar (2015); Berry et al. (2015); Cendrowicz and Paterson (2015); (Aichberger et al. (2012); Chouliaraki and Zaborowski (2017)); Dugulin (2015); Georgiou and Zaborowski (2017); Greussing and Boomgaarden (2017); Haller (2017); Jørgensen and Thomsen (2016); Mortensen (2016); Pinto (2016); Rheindorf and Wodak (2017); Kogovšek Šalamon and Bajt (2016); Schmidt et al. (2016); Vezovnik (2017); White (2015)