



Università
Ca' Foscari
Venezia

Master's Degree programme – Second
Cycle (*D.M. 270/2004*)
in Relazioni Internazionali Comparate –
International Relations

Final Thesis

—
Ca' Foscari
Dorsoduro 3246
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The different facets of
replacement migration.
An empirical contribution to the theoretical
debate through a focus on Italy and France.

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Matriculation Number 838412

Academic Year

2015 / 2016

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Acronyms

CNM: Completed Net Migration

CR: Combined Reproduction

ENM: Effective Net Migration

GRR: Gross Replacement Rate

NMR: Net Migration Rate

ODR: Old-age Dependency Ratio

ORR: Overall Replacement Rate

RM: Replacement Migration

Rm: Index of Replacement including Migration

TF: Total Fertility

TFR: Total Fertility Rate

UN: United Nations

Abstract

Secondo i dati Eurostat, nel 2015 solo Francia e Irlanda hanno registrato un tasso di fecondità sufficientemente elevato (2 figli per donna) da garantire il ricambio generazionale. Questo trend può essere almeno in parte associato agli inevitabili risultati dell'ultima fase di una rivoluzione demografica che fa seguire a una netta diminuzione della mortalità un calo graduale della natalità. Ciò nonostante, lo spettro di un progressivo invecchiamento della popolazione anima i dibattiti degli studiosi e dei policy makers europei ed è stato messo nero su bianco da uno studio pubblicato dalle Nazioni Unite nel 2001.

Nel tentativo d'individuare una possibile contro-strategia, ci si è chiesti se le migrazioni possano favorire un'inversione di marcia e svolgere un ruolo compensatorio davanti a questo

scenario demografico da molti considerato allarmante. Proprio per questo, la migrazione sostitutiva è oggi un tema molto dibattuto in ambito accademico ed è stato l'oggetto di molte pubblicazioni recenti.

Questa tesi punta a coniugare teoria e pratica attraverso uno studio dettagliato delle statistiche riguardanti l'Italia e la Francia, dedicando un'attenzione particolare a dei contesti regionali ben definiti (il Veneto e l'Île-de-France). La particolarità di questi due casi di studio sta nella diversità della loro storia migratoria e delle loro caratteristiche demografiche attuali. Da un lato l'Italia è sempre stato un paese di emigrazione e solo di recente ha cominciato a essere interessata da arrivi consistenti di stranieri; dall'altro lato, in virtù del suo passato coloniale, la Francia ha sempre attratto un alto numero di migranti. Inoltre, mentre l'Italia registra uno dei tassi di fecondità più bassi a livello Europeo, la Francia è l'unico stato assieme all'Irlanda in cui le nascite garantiscono il ricambio generazionale. La scelta d'intraprendere un'analisi comparata si basa proprio sulla volontà di capire se e come la lunghezza della storia migratoria e le caratteristiche demografiche esistenti possano influenzare il contributo e la portata della migrazione sostitutiva.

Il primo step di questa analisi fornisce una visione d'insieme dei contributi finora forniti dalle pubblicazioni che hanno sviluppato questo tema. Ciò permetterà di consolidare un punto di partenza teorico solido e d'individuare gli approcci metodologici più utili ed efficaci alle fasi successive di questo lavoro. Nello specifico, è stato osservato che il contributo dato dalla popolazione straniera si snoda su due assi principali. Da un lato, per il solo fatto di essere presenti su un territorio, i migranti aumentano in termini assoluti la dimensione della popolazione e di precise fasce d'età; le possibili conseguenze sulla popolazione in età lavorativa e dunque sullo sviluppo economico di un determinato contesto potrebbero essere quindi significative. Dall'altro, la fecondità più elevata delle donne non autoctone e l'alto numero di nascite possono potenzialmente modificare il tasso di fecondità locale. Lo studio teorico di questo apporto diretto o indiretto a scenari demografici presenti o futuri ha spinto molti studiosi a sviluppare indicatori statistici utili a cogliere la portata del fenomeno; tuttavia, ad oggi non è stato raggiunto un consenso su questo aspetto metodologico. Si cercherà quindi d'individuare gli strumenti maggiormente spendibili nel quadro di un'analisi comparata a livello regionale.

La seconda e la terza parte di questo lavoro analizzeranno nel dettaglio i dati riguardanti i paesi d'origine, il volume, la composizione per fasce d'età, il numero di nascite e i tassi di fecondità della popolazione straniera nel Veneto e in Île-de-France. Studiando questi dati pubblicati dagli istituti di statistica nazionali (Istat per l'Italia ed Insee per la Francia) e sfruttando i metodi individuati in precedenza, si riuscirà ad associare i vari contesti a una delle sfaccettature della 'replacement migration' presentate dalla letteratura. La diversa portata di questo fenomeno sarà man mano associata ad ulteriori dinamiche sociali, economiche e culturali che permetteranno di affrontare tematiche quali il tasso di disoccupazione, l'inserimento professionale, le strategie di mobilità sociale, l'integrazione e le sue conseguenze sulle scelte riproduttive.

Questa analisi permetterà quindi di confermare le premesse teoriche iniziali ma anche di soffermarsi su precisi risultati emersi nel corso di questo studio. Nello specifico, la lunghezza della storia migratoria si rivelerà uno spartiacque nella portata del fenomeno della migrazione sostitutiva e darà anche indicazioni interessanti relative agli input statistici necessari all'applicazione degli strumenti delineati a livello teorico. Inoltre, si riuscirà a cogliere il nesso tra l'apporto demografico della

popolazione straniera e dinamiche sociali, culturali ed economiche di più ampio respiro.

Introduction

“Migration policies. Landings. Lines of refugees at the borders. Terrorist attacks. Men, women and children dying in the Mediterranean. Building of welcome centres. Local cultural conflicts. Mass welcoming. New walls rising at the borders and within the European Union. Patrolling measures, checks, safety. Elaboration of migration policies on a European, national and local level. Mixed weddings and families. Political conflicts. Second generations. Education policies. Emerging radicalisms between and against immigrants. Wars.”¹

*S. Allegri, G. Dalla Zuanna. “Tutto quello che non vi hanno mai detto sull'immigrazione”.
2016. P. V.*

This is the situation being faced by the European Union during the last few months. However, hardly has it been considered that the potential

¹ Translated by the author.

of demography, births, marriages and deaths does not have any border and, while engaged in building walls, Europe is progressively shrinking.

In fact, most countries are now facing a process of population ageing caused by significant declines both in fertility and mortality rates. This is an inevitable and predictable outcome of the first demographic transition, which marked a turning point from the high birth and death rates of pre-industrial contexts to the low birth and death rates of modern economic systems. However, this trend worsened as a consequence of specific historical phenomena and precise reproductive behaviours on which the second demographic transition has been based. In fact, the baby boom of the 1960s with the unavoidable ageing of the cohorts born in those years, the widespread postponement of marriage and childbearing and the major changes in contraceptive practices have significantly contributed to the ongoing situation. Therefore, the European age structure has undergone deep changes, with people under thirty slowly diminishing almost everywhere and the percentage of those over the age of forty steadily increasing. Even if there are significant differences both between and within European countries², this process is nearly universal and future projections are not encouraging; according to most scholars, by 2050

2 On an international scale, this tendency is more evident in southern and eastern European countries (e.g. Italy, Spain and Poland) rather than in the central or northern ones (e.g. France, United Kingdom, Sweden and Norway). On a national level, in southern Italy there has been observed a sharper decrease than in the northern regions.

these tendencies will lead to a decline in the total population of the European countries.

An extensive literature has recently focused on possible measures aiming at stopping, retarding or even reversing this process. Most of these works lay emphasis on the core of the problem, that is to say fertility; more specifically, they propose the introduction of pronatalist policies or other social welfare measures that would encourage childbearing. However, apart from being onerous for public spending, the timing and long-term effectiveness of such actions is called into question, since their results would counter population ageing or make possible a return to the above-replacement level fertility³ only over the next half century. Nevertheless, two other basic demographic components affect the size and composition of a population: mortality and migration. Of course, no policy aiming at reversing ageing by increasing old-age mortality is socially desirable; on the contrary, further improvements in life expectancy through medical progress and the advancements in living standards will continue to be primary social goals.

As a result, it seems that only international migration appears sufficiently effective to counter the ongoing demographic trends in the short-medium term. Europe has always been interested by large-scale

³ Replacement level is the total fertility rate that would ensure the replacement of the various generations, thus maintaining a relative population stability, without increases or declines. A rate of two children per woman is considered the replacement rate for a population.

inflows and outflows of people and major historical events. The end of the Second World War, the decolonization, the fall of the Berlin Wall and more recently the political instability in the Middle East and in North Africa not only modified broader geopolitical pictures but were also the driving forces of South-North and East-West migrations. Europe experienced a net migration of 4 million people in the 1980s, 9 million in the 1990s and 18 million in the first decade of this century (Livi Bacci, 2016, p. 150). Considering the increasing inequality and political instability characterizing the contemporary world, it would not be surprising if this phenomenon further strengthened in the years to come. Therefore, even if many uncertainties surround these movements because the number of entries and departures may significantly change from one year to another, it is appropriate to take into consideration the impact that the foreign-born population may have on the current demographic challenges.

This topic gained public prominence thanks to a study published in 2000 by the Population Division of the United Nations asking whether “replacement migration” did offer “a solution to declining and ageing populations” and many scholars contributed to this debate during the last few years. Moreover, if we take into consideration the statistics for 2013 immigration levels, when the European Union and its 505 million inhabitants witnessed the arrival of 1.8 million people coming from non-member countries (400

thousand of whom were asylum seekers and refugees) (Eurostat), it is clear that it is worth focusing on the demographic impact of these constant entries. The importance of these trends and of these interdisciplinary relationships incited us to work in this direction. More specifically, this study aims at contributing to the current discussion by combining existing theoretical frameworks to specific national statistics, thus providing complete contextualizations of the process under study.

To better fulfil this task and provide an exhaustive introductory view of this phenomenon, the starting point of our analysis will be a complete literature review. This will allow us to shed light on the various contributions which have developed the broader concepts outlined in UN 2001 study by formulating sound theories and providing significant methodological improvements. In this way, we will make a selection of the theoretical and statistical instruments necessary both to outline the premises of our reasoning in the following chapters and to detect the facets of replacement migration associated to the various contexts that will be analysed.

In the second and third section of our work these theoretical concepts will be considered in the light of contextualized data, thus making clear that there are many factors contributing to this phenomenon and to its different dimensions. More specifically, emphasis will be laid on two countries with contrasting migration

histories and divergent demographic trends, that is to say Italy and France, with a major focus on the regions of Veneto and Île-de-France. On the one hand, Veneto has a long history of emigration, which started at the end of the 19th century and continued until the second post-war period. However, nowadays Italy, with its low fertility rate (1.37 children/woman in 2014), has become a major gateway to Europe and Veneto is now one of the most common destinations for the immigrants who decide to settle in the peninsula. As for France, it has been a net 'importer' of people since the end of World War II thanks to the process of decolonization. For this reason, today it is a multicultural country where people born in different continents live together in interracial urban environments and play a significant role in determining one of the highest fertility rates in Europe (2.01 children/woman in 2014).

In both cases, national and regional statistics will be studied to support the initial assumptions by detecting the reproductive, social, cultural and professional characteristics of the foreign-born population⁴, which can be related to a specific facet of replacement migration. Some specific questions will be addressed: are there

4 Due to data limitations, it is impossible to discuss the effects of illegal migration, even if during the last few years this phenomenon has been remarkable. As a result, our analysis will only work with the statistics concerning legally and permanently resident immigrant people, which have been defined by the United Nations as “[people who moves] to a country other than that of his or her usual residence for a period of at least a year (12 months), so that the country of destination effectively becomes his or her new country of usual residence”. From a terminological standpoint, the expressions 'immigrant' and 'foreign-born person' will be used interchangeably in our study

differences in terms of demographic behaviours related to the countries of origin? Are there some reproductive choices or living arrangements that can have a positive or disruptive influence on this relationship existing between demography and migration? Does the level of education affect these dynamics? Will the choice to focus on Italy and France allow to conclude that the foreign-born population has a completely different impact according to the context? Should the length of the migration history and overall demographic trends be taken into consideration?

In conclusion, our study will operate with a rather limited number of key terms and concepts but they will be sufficient to confirm the importance of replacement migration and to highlight its intrinsic mechanisms, impacts and strategies. Indeed, thanks to this conceptual parsimony we will be able to detect both cross-national and intraregional differences and specific factors. This will allow us to contribute to the current debate on this topic thanks to the presentation of sizeable and contextualized outlooks.

1. Replacement migration: a theoretical starting point

1.1 The beginning of the debate on replacement migration

The debate over replacement migration was opened by a study published in 2000 by the Population Division of the United Nations, asking whether “replacement migration” (RM) would offer “a solution to declining and ageing populations” (United Nations, Population Division, 2000). This report defined RM as “the international migration that would be needed to offset declines in the size of population of working age, as well as to offset the overall ageing”. It focused on eight countries (France, Germany, Italy, Japan, Republic of Korea, Russian Federation, United Kingdom of Great Britain and Northern Ireland, and the United States of America) and two larger regions (Europe and the European Union), characterized by below-replacement fertility, and used their well-developed statistical systems

to present an analytical insight of their demographic future. The results of this analysis estimated the amount of RM that would be necessary to counter both the process of ageing and the expected population decline, with its unavoidable consequences for the workforce. For example, as far as Europe⁵ is concerned, this study reported six possible scenarios:

1. Assuming an average net intake of 428 000 immigrants per year between 1995 and 2050, an overall decline of the population is expected to occur at the beginning of the new millennium; to be more specific, in this case Europe would lose 100 million inhabitants by 2050.

2. Assuming that there will not be any entry to Europe after 1995, the total population would immediately start decreasing, and by 2050 there will be 600 million inhabitants (a reduction by 18

⁵ In this study, Europe includes 47 countries and regions: Albania, Andorra, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Channel Islands, Croatia, Czech Republic, Denmark, Estonia, Faeroe Islands, Finland, France, Germany, Gibraltar, Greece, Holy See, Hungary, Iceland, Ireland, Isle of Man, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Netherlands, Norway, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, San Marino, Slovakia, Slovenia, Spain, Sweden, Switzerland, the former Yugoslav Republic of Macedonia, Ukraine, the United Kingdom of Great Britain and Northern Ireland, and Yugoslavia. For our own study, we chose to focus on Europe and not on the European Union, in order to provide a broader continental perspective, rather than an institutional one. In fact, after 2001 the European Union has grown in size thanks to the accession of new member states; therefore, the data reported by the UN study are not comparable to more recent ones. In the following chapters, specific national projections presented by this report will be taken into further consideration in order to better contextualize our analysis.

per cent from the 1995 level). However, this hypothesis is not plausible any more since, after the publication of this study, Europe witnessed the arrival of several thousands of foreign-born people per year.

3. In order to maintain the current population size until 2050, a target of 100 million immigrants would be necessary.

4. If we wanted to avoid a reduction of people aged 15 to 64 (i.e. the workforce), Europe would need approximately 3.6 million immigrants per year, which would also cause an increase in the total population size and a consequent postponement of the likely start of the demographic decline.

5. and 6. In order to maintain the potential support ratio (PSR) at its 1995 value of 4.8 people aged 15 to 64 for each person aged 65 years or older, it would be necessary to have almost 1.4 billion immigrants between 1995 and 2050, thanks to whom the European population would also grow to 2.3 billion by 2050. On the other hand, if we just wanted the potential support ratio not to decrease below the value of 3.0, no immigrants would be needed before 2025, but 235 million entries would be necessary between 2025 and 2050, which would increase the European population of 33 per cent by 2050.

The UN study acknowledged the value of immigration as an exogenous force able to affect national demographic dynamics and subsequent works aimed at supporting its assumptions. However, among experts disagreement frequently exists over the overall impact of these inflows of people on population composition, on the rates of natural growth and on fertility levels. As a result, in this chapter attention will be drawn to significant scholarly contributions, which will help us outline and shed light on some conceptual issues of paramount importance. Thanks to them, we will be able not only to detect the various facets of RM but also to understand how these mechanisms have cumulated during the last few decades.

More specifically, in the following pages it will be observed that, when thinking in terms of replacement migration, two main tendencies can be detected: on the one hand the role of 'demographic gap fillers' played by foreign-born people and their direct influence on current and future demographic trends; on the other hand, the indirect impact immigrants have on birth rates and childbearing patterns. Although scholars have unanimously come to these conclusions, literature lacks standard terminology, vocabulary and methodology that may strengthen this theoretical framework. Thus, in this work we will use labels and classifications as neutral and simple as possible, in order to avoid possible misunderstandings. Furthermore, these two interpretations will also be studied in the light of specific statistical

tools developed ad hoc by experts and analysts: they are reliable instruments aimed at offering precise numerical overviews when studying contextualized data on RM. These initial clarifications will provide effective theoretical and practical means necessary to build complete and accurate demographic pictures in the following chapters.

1.2 The direct contribution of immigration

This first interpretation of RM relies on the relation existing between the inflows of foreign people and the size and age-sex structure of the country of arrival. The most significant theoretical contributions trying to explain this mechanism have been made by Billari and Dalla Zuanna (2012) and by Wilson, Sobotka, Williamson and Boyle (2013). More precisely, both groups of scholars explained that as individuals born abroad immigrate, the dimensions not only of the population as a whole but also of a real or synthetic birth-cohort can inflate.⁶

⁶ This perspective, which vividly conveys the idea of replacement, has been associated with different labels; in fact, while Wilson et al. termed it 'population replacement migration' (Wilson et al., 2013, p.132), Billari et al. used the expression 'birth-cohort replacement migration' (Billari et al., 2012, p. 107). Such labels are both significant and meaningful. However, to avoid possible terminological misunderstandings which may invalidate the strictness of our analysis, we have chosen to use impartial yet eloquent vocabulary when hinting at this specific facet of replacement. This will also allow to provide these theoretical contributions with an equal treatment, without discrediting the validity, correctness and the legitimacy either of the one or the other. More specifically, we have decided to rely on the inclusive periphrasis 'direct contribution of replacement migration', suggested by Michèle Tribalat in her work "Fécondité des immigrées et apport démographique de l'immigration étrangère" (Tribalat, 1974, p. 752).

In order to highlight the functioning of this direct connection between immigration and demography, some data about the European Union will be provided.

The first and simplest observation has to focus on a merely numerical perspective; in fact, it can be seen that by settling down in this area, the immigrants who moved to the EU28 over the years provided it with 13 million supplementary inhabitants in 2015. This means that, if we take into consideration the low fertility of most European countries, these inflows of people may have compensated for 13 million lacking births (Eurostat, Population on 1 January by five year age group, sex and country of birth).

Furthermore, the theoretical framework of the direct contribution of RM also focuses on the birth-cohort structure; in fact, as table 1 shows, thanks to an analysis of five-year intervals, the size of the generation born between 1980 and 1984 in Europe increases with time. This means that the migratory inflows occurring between 1985 and 2015 have played a significant role in modifying the dimension of that specific cohort. In the following paragraphs, we will provide a thorough explanation of these dynamics.

Table 1: Size of the cohort born between 1980 and 1984 in Europe.

Year	Age	Dimension of that cohort (thousands)
1985	0-4	49 542
1990	5-9	49 584
1995	10-14	50 232
2000	15-19	50 541
2005	20-24	51 408
2010	25-29	52 019
2015	30-34	52 105

Source: Elaboration on UN data.

United Nations, Population Division, Total population (both sexes combined) by five-year age group, major area, region and country, 1950-2100 (thousands). 2015

1.2.1 Indicators of population change through migration

Over the years, extensive literature has argued that conventional demographic measures cannot estimate the impact of large-scale migratory inflows on the broader dynamics of population change. As a result, many studies and works have tried to solve this problem; in fact, simpler and transparent indicators could enable not only scholars but also policy makers and a wider audience to judge the role of migration as a factor of change in population composition and as a determinant in the dimension of a specific generation.

In the following pages, we will introduce the instruments reported in table 2, thus detecting those that are more likely to be useful and effective in the analysis carried out in the following

chapters. These methods of measurement will also be examined in the light of tangible data reporting the actual situation of some selected European countries. In particular, in most cases we will focus on Germany and Bulgaria, which represent two borderline cases (they are the EU countries with the highest and lowest number of long-term immigrants and emigrants respectively), thus helping us test the validity and correctness of these methodological strategies in divergent contexts.

Table 2: Main indicators of population change through migration

D. Philipov and J. Schuster (Philipov et al., 2010)	- Projection of the Population Observed - Projection of Observed Births
D. Ediev, D. Coleman, S. Scherbov (Ediev et al., 2014)	Completed Net Migration
C. Wilson, T. Sobotka, L. Williamson, P. Boyle (Wilson et al., 2013)	Overall Replacement Ratio
T. Sobotka (Sobotka, 2008)	Gross Replacement Rate
G. Dalla Zuanna (Dalla Zuanna, 2008)	Index of Replacement including Migration

1.2.1.1 Projection of the Population Observed and Projection of Observed Births

In their work “Effect of Migration on Population Size and Age Composition in Europe”, Philipov and Schuster (2010) addressed the issue of the numerical contribution of foreign-born people to the population as a whole. More specifically, they argued that by comparing the projected population of a selected year (after having subtracted the emigrants and added the immigrants and their descendants) to the actual population, it is possible to provide reliable indications of the net migration accumulated over a specific period. A simple formula sums up these methodological steps:

$$\begin{aligned} & \text{Actual population} \\ & = \\ & \text{Year X population projected to year} \\ & - \text{Emigrants from this population or their descendants} \\ & + \text{Immigrants and their descendants} \end{aligned}$$

The statistics for Germany and Bulgaria in 2007 (i.e. the reference year studied by Philipov et al. in their work) will ease the understanding of this indicator.

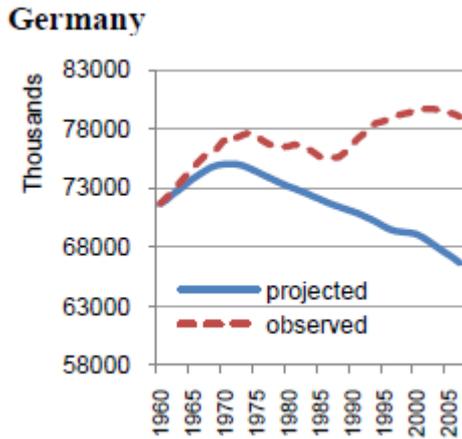
Table 3: German and Bulgarian overall demographic situations.

	Projected population to 2007	Observed population in 2007	Immigration	Emigration	NMR
DE	66 160 000	50 384 000	High	High	Positive
BG	6 608 000	5 890 000	Low	Low	Negative

Source: Elaboration on Philipov et al. and Eurostat's data.

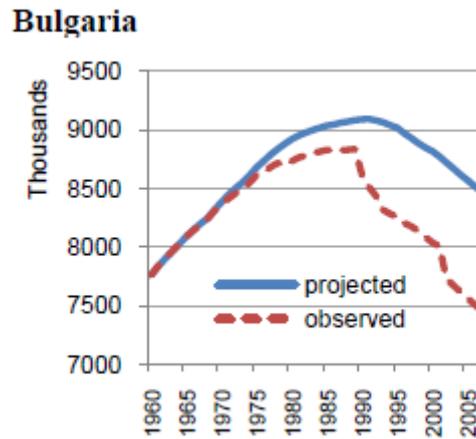
Philipov et al. (2010). Eurostat, Immigration and Emigration by five year age group, sex and citizenship.

Figure 1: Projection of the observed population for Germany for 2007.



Source: Philipov et al. (2010)

Figure 2: Projection of the observed population for Bulgaria for 2007.



Source: Philipov et al. (2010)

As figure 1 shows, in a context characterized with high levels of immigration like Germany, the difference between the projected and the observed population is mainly due to a migration surplus. This trend mainly depends on the fact that despite the high number of departures, the German NMR is positive (see table 3). On the contrary, as far as Bulgaria is concerned, the difference between the projected

population and the actual population is mainly due to the high number of emigrants which have moved abroad after the fall of the Berlin Wall. Indeed, even if today Bulgaria is the European country with the lowest number of emigrants and immigrants, altogether these figures have contributed to a negative NMR, which means that the population is diminishing because of constant departures from the country.

Similarly, this approach can also be applied when estimating the cumulative effect of survived births, emigrants and immigrants on the dimension of a specific birth-cohort by comparing the demographic projections to the observed dimension of the selected generation over time. In other words:

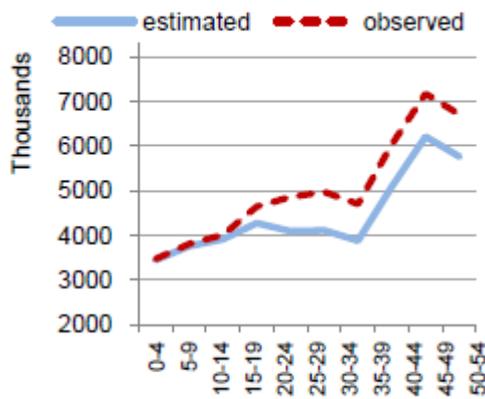
$$\begin{aligned} &\text{Actual population} \\ &= \\ &\text{Survived births} \\ &- \text{Emigrants among survived births} \\ &+ \text{Foreign-born people} \end{aligned}$$

Also in this case, the statistics for two borderline cases like Germany and Bulgaria can help better understand the dynamics behind the assumptions of Philipov et al. As it can be seen, in Germany the observed dimension of the selected cohort over the years (Philipov et al. report the data for children born in 1980) exceeds the projections; as it has already been said, this mainly depends on migratory inflows that are heavier than outflows. The contrary is also

true for Bulgaria, where a negative NMR widens a downward gap between the projected and the observed size of a generation during its lifespan. Furthermore, a more detailed comparison of the projections and the actual dimensions of the cohorts over time shows that when emigration is more likely, i.e. between the ages of 20 and 45 (see paragraph 1.3 for further explanations), the gap between the statistics is wider, thus confirming the initial premises.

Figure 3: Projection of observed births for Germany for 2007.

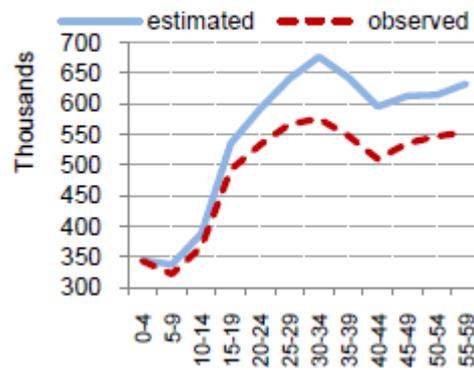
Germany



Source: Philipov et al. (2010)

Figure 4 : Projection of observed births for Bulgaria for 2007.

Bulgaria



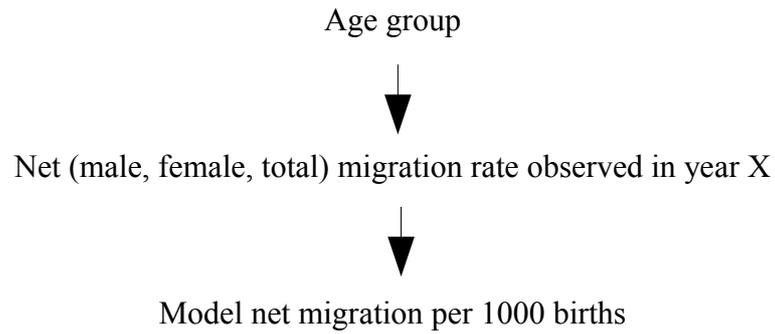
Source: Philipov et al. (2010)

These simple equations rely on the assumption that fertility and mortality of the natives and of the foreign-born population do not differ. However, these hypotheses are misleading. On the one hand, it is likely that the fertility of the immigrants is considerably higher than

that of the natives. On the other hand, many foreign-born elderly may decide to go back to their homeland before dying, thus invalidating the figures on mortality in the host country. Furthermore, this method also needs the data on population projections, emigration and immigration. While Eurostat and official censuses have recorded these figures on a national scale, these statistics may not be available at a regional or provincial level, thus precluding the possibility to use this method within more circumscribed contexts.

1.2.1.2 Completed Net Migration

This statistical tool, introduced by Ediev, Coleman and Scherbov in their work “New Measures of Population Reproduction for an Era of High Migration”, provides and combines estimates of the number of migrants contributing to each generation and expresses them in proportion to each 1000 births to the indigenous population in a synthetic birth-cohort. In other words, these scholars study the age-specific NMR, thus calculating the total number of foreign-born people who have joined the original sample of 1000 native new-borns by the end of their lifespan (Ediev et al., 2014).



In order to better understand how this indicator works, we will use it with the statistics for Germany and Bulgaria. As tables 4 and 5 show, by reporting these data in proportion to a sample of 1000 native individuals, the measure introduced by Ediev et al. allows to have a clearer numerical idea of how many immigrants or emigrants have contributed to the volume of the native cohorts in the reference year (in this case 2014). As it can be easily imagined, the higher the value of the CNM, the larger the inflows of migrants and, on the contrary, the lower the CNM the more massive the emigration. The sum of these age-specific values corresponds to the number of foreign-born people arriving to or natives departing from a country contributing to the dimension of a native generation in a lifetime.

Table 4: Completed Net Migration for Germany in 2014.

Live births from native women (2014): 529 925

Age group	Net migration (2014)	Net migration per 1000 births (2014)
0-4	24 108	45
5-9	20 045	38
10-14	16 682	31
15-19	25 312	48
20-24	53 191	100
25-29	44 150	83
30-34	28 331	53
35-39	17 671	33
40-44	11 172	21
45-49	7 244	14
50+	15 051	28
Total	202 122	CNM = 494

Source: Elaboration on Eurostat data.

Eurostat, International Net Migration by age and sex; Live births by mother's age and country of birth.

Table 5: Completed Net Migration for Bulgaria in 2014.

Live births from native women (2014): 66 538

Age group	Net migration (2014)	Net migration per 1000 births (2014)
0-4	- 32	- 0.5
5-9	- 52	- 0.8
10-14	- 67	- 1
15-19	100	- 1.5
20-24	- 5	- 0.07
25-29	- 538	- 8
30-34	- 605	- 9

35-39	- 518	- 8
40-44	- 418	- 6
45-49	- 340	- 5
50+	- 1109	- 17
Total	- 3584	CNM = - 57

Source: Elaboration on Eurostat data.

Eurostat, International Net Migration by age and sex; Live births by mother's age and country of birth.

Nevertheless, this method and the data it requires are complex. In fact, while both at a local and at a national level it is likely to have available statistics on the overall NMR of a population, it is much more complicated to gather and examine these figures for the various time intervals of a selected birth-cohort all along its lifespan. As a result, even if it were possible to compare the changes in the size of a generation from one year to the other, they would just be approximations since precise data on age-specific NMR are not always accessible. Moreover, as Ediev et al. affirm, this approach relies on the assumption that, in the period under study, there are no variations either in the mortality or in the NMR. Even if developed contexts like Europe are unlikely to experience sudden (either positive or negative) changes in life expectancy, recent political events in the Middle East have showed that migratory trends can significantly vary from one month to another. Moreover, it can be argued that such unforeseeable exogenous phenomena, which have previously

influenced the NMR of a receiving country, are not considered by this indicator; in fact, by examining the dimension of age-specific cohorts in a precise year, it does not take into account the past contributions of migrants to the dimension of those same generations.

1.2.1.3 Overall Replacement Ratio, Gross Replacement Rate and Index of Replacement including Migration

These indicators have been introduced by three different groups of researchers but their aim and the method they use to assess how far migration alters the volume of a birth-cohort as it ages coincide (see Wilson et al.,2013; Sobotka, 2008; Dalla Zuanna, 2008). In fact, they all take the size of a female⁷/male/two sexes combined generation in a specific year and divide it by the cohort of mothers/fathers/parents in the year of birth. In the absence of inflows and outflows, this ratio will remain almost constant over time and will decline only as mortality reduces the dimension of the sample under study. On the contrary, when experiencing significant inflows of people, the value of the indicator will rise as the cohort ages, while where there is significant net emigration this figure will decline over time. Thus, when this

7 The cohort of mothers comprehends all those women aged between 20 and 35 years (i.e. the mean age at childbearing) in the reference year. Nevertheless, nowadays there has been a significant increase in the average age at childbearing in almost all developed countries; as a result, it can be argued that when choosing the data for the mothers, time intervals should be changed, thus also including women aged between 35 and 45 years old.

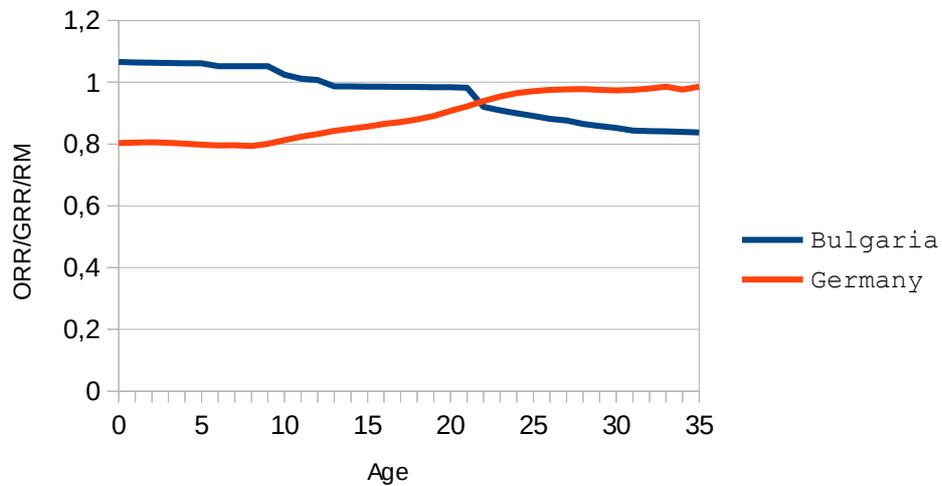
value is around one, it means that the mothers/fathers/parents have been substituted by their daughters/sons/children, while if it is below or above one the population will decrease or increase over time, respectively.

These assumptions are confirmed by figure 5, which displays the data for the daughters born in 1980 and their mothers¹⁶ in Germany and Bulgaria. The statistics reported here have been studied by following the indications provided by Wilson et al., Sobotka et al. and Dalla Zuanna, that is to say by dividing the size of the female population born in a selected year all along its lifespan by the dimension of the cohort of their mothers when these young girls are born:

$$\text{ORR/GRR/Rm}^8 = \frac{\text{Female population (age, calendar year = year of birth + age)}}{\text{Female population (aged 20 to 35, calendar year = year of birth) / 16}^8}$$

8 The factor 16 refers to the years included in the time interval of the average childbearing age. Dalla Zuanna's indicator Rm analyses the ratio between daughters and mothers in the same year of their lives (i.e. childbearing age); as a result, it does not require any other divisor apart from the dimension of the cohort of daughters and mothers in the same moment of their lives.

Figure 5: ORR/GRR/Rm for Germany and Bulgaria for the female cohort born in 1980 as compared to the cohort of their mothers.



Source: Elaboration on Eurostat data.
Eurostat, Population on 1st January by age and sex.

As it can be seen, the German positive NMR makes the value of the ORR/GRR/Rm increase as the cohort ages and the value of this indicator is around one only when the daughters are aged between 25 and 35 years old. As a result, the cohort of mothers is substituted only 25 years after the birth of their daughters and the arrival of foreign-born women has contributed to increasing the dimension of that cohort in that specific time interval. On the contrary, the Bulgarian negative NMR makes the value of the ORR/GRR/Rm decrease over time. Consequently, while until the age of 21 this value is around or above one, thus suggesting that young daughters are substituting the cohorts

of mothers, this trend changes as young women born in 1980 reach childbearing age and are more likely to move abroad.

The fundamental characteristic of this group of indicators is that they are extremely manageable and require simple and easily available figures; among them, only the Rm introduced by Dalla Zuanna can pose a problem since it is likely that local databases do not provide sufficiently comparable back-data. As a result, the statistics drawn from censuses carried out at intervals of a certain number of years are sufficient. The various figures obtained by using this group of tools are comparable over time, across countries but also on a sub-national scale, even in contexts that lack detailed estimates and have significant data limitations.

1.2.2. The direct contribution of immigration and the age structure of the foreign-born population

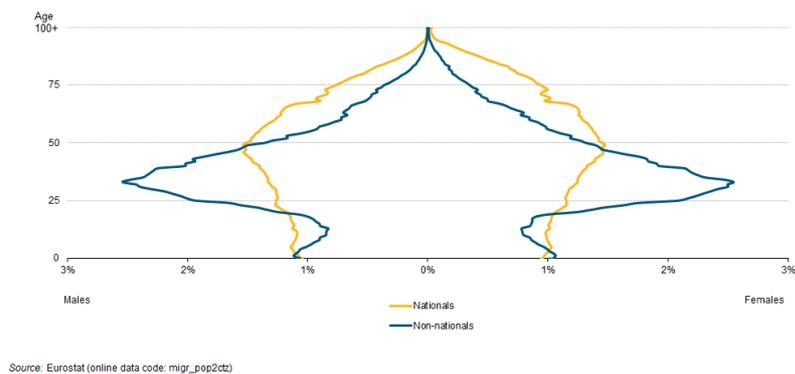
If we analyse the age pyramid of the foreign-born population as compared to that of the natives (see figure 6), it turns out that all those who choose to come to Europe are relatively young and they are between 25 and 50 years old.

This mainly depends on the risks and uncertainties related to migration itself. Indeed, while both for the elderly and for young children it is not easy to integrate in a new country or it takes too long

to enjoy the advantages of more flourishing economic and social contexts, young people are more likely to move abroad to reap the benefits of new work opportunities in the short term.

This means that, thanks to massive inflows of people in this time interval, the workforce can be replaced. Billari and Dalla Zuanna (2012), who labelled this phenomenon 'working-age population replacement migration', have studied this idea.

Figure 6: Age pyramid comparing nationals and non-nationals in Europe.



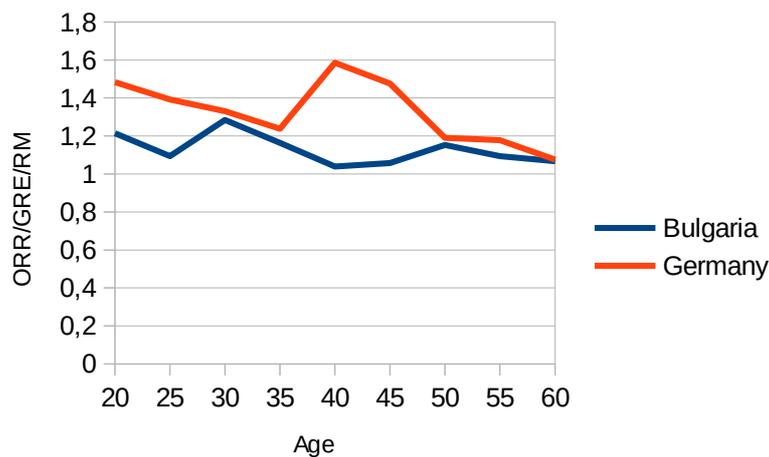
Source: Eurostat, Age structure of immigrants by citizenship, EU-28, 2013

The indicators presented so far rely on precise time intervals and birth-cohorts and relate to different ages; this means that they can also be used to estimate the possible changes in the sizes of productive age groups over time, thus tracking the contribution of migrants to the

labour force. In fact, if we focus on the quantity of people aged between 20 and 65 (i.e. the workforce) and compare it to the dimension of the professionally active cohorts in their year of birth, we can observe whether the working-age population has been replaced over time. As we said previously, a value of this ratio around one means that the current generations of workers have substituted the older one who is now retired, while if it is below one there has been no replacement of the workforce.

For example, a study of the data for Germany and Bulgaria and a comparison between the size of the professionally active population from 1980 to 2015 and the volume of the workforce in 1980 shows that in both cases there has been a replacement.

Figure 7: ORR/GRR/Rm for the German and Bulgarian working-age population entering the job market in 1980



Source: Elaboration on Eurostat data. Eurostat, Population on 1st January by age and sex.

Alternatively, the United Nations have developed another manageable tool, called the 'old-age dependency ratio', which can provide useful information about the direct contribution of the foreign-born people to the professionally active segments of society. Even if it measures the overall number of elderly people as a share of those of working-age, this strategy provides an effective methodological suggestion. In fact, by adapting this existing approach and by calculating the ratio of the native elderly aged over 65 and the foreign-born people aged between 20 and 65 in a specific country, we have a clear idea of the contribution of immigrants to the workforce in a specific context. As a result, the lower the value of this indicator, the more likely that the working-age foreign-born population is replacing the elderly.

For example, the data reported below show that in Germany young men and women who have moved from abroad are much closer to replacing retired natives than in Bulgaria. In fact, in the former case, for each working-age foreign-born individual there are two natives aged over 65, while in the latter the ratio is 24.

Table 6: Adapted version of the ODR for Germany and Bulgaria in 2013

	Foreign-born people 15-64	Natives 65+	Adapted ODR
DE	8 560 203	15 450 561	2
BG	57 494	1 378 584	24

Source: Elaboration on Eurostat data.

Eurostat, Population on 1st January by five year age group, sex and country of birth

1.3 The indirect contribution of immigration

Another approach that has to be taken into consideration when studying replacement migration focuses on the contribution of migrants to the total number of births and is linked to the childbearing trends and the reproductive choices of the immigrant population.⁹

This mainly depends on the potential fertility differentials of foreign-born and native women. Thus, attention must be drawn not only to the data on births by country of origin of the parents but also to the fertility rates of the different groups of migrants. This approach highlights the heterogeneity in the childbearing patterns of immigrants coming from various geographical areas; it also allows to estimate the difference between actual fertility rates and those that would have been achieved without migratory inflows.

As far as these differences both between ethnic or national groups and between the foreign-born population and the natives are concerned, they have to be explained by taking into consideration multiple factors, such as religion, female socio-economic position,

⁹ This conceptualisation has been studied by many scholars. Wilson and colleagues labelled it 'birth-replacement migration' (Wilson et al., 2013, p. 132). However, as we have already explained we will not stick to any expression introduced by a specific group of experts. Furthermore, in this case this could also lead to possible misunderstandings between the label 'birth replacement migration' introduced by Wilson et al. (i.e. a hint about the relationship existing between the foreign-born population and its contribution to births) and the concept of 'birth-cohort replacement migration' used by Billari and Dalla Zuanna (2012, p. 107), i.e. a reference to the indirect contribution of immigrants to the dimension of the various cohorts of a country.

educational attainment, income, level of integration, etc. Furthermore, specific values, norms and social strategies related to reproduction and to the process of family formation (e.g. the earlier start of childbearing, the lower levels of childlessness, the characteristics of marriage patterns, the peculiarities of contraceptive use and abortion) can also explain the possible observed boosts of fertility levels in the receiving context.

However, it must be stressed that the statistics used when drawing these comparisons can be down-biased since many foreign-born women eventually obtain the nationality of the receiving country, thus partially approximating the soundness of this reasoning. Similarly, there is often lack of figures referring to the childbearing patterns of the second and third generations of immigrants; this is a limiting factor not allowing to study the reproductive behaviours displayed after a process of assimilation and possible integration.

Although we will present and explain these dynamics in the following chapters, some data gathered by Eurostat can provide a statistical estimate of the contribution of foreign-born people to the births of the European Union and its member states in 2014. In particular, special attention will be devoted to the borderline cases that have already been exploited in the previous paragraphs to illustrate other indicators, i.e. Germany and Bulgaria.

Table 7: Live births in the European Union and its member states by mother's country of birth (2014)

Country	Births from mothers born in the reporting country	Births from mothers born in non-EU 28 countries	Births from mothers born in EU-28 countries (except the reporting country)	Total
Austria	56 301	15 659	9 736	81 722
Belgium	86 506	25 605	11 691	125 014
Bulgaria	66 538	858	170	67 585
Croatia	33 102	4 680	1 293	39 566
Cyprus	6 747	872	1 622	9 258
Czech Republic	102 885	3 714	3 261	109 860
Denmark	45 711	8 153	3 001	56 870
Estonia	12 834	603	89	13 551
Finland	50 271	4 829	2 049	57 232
France	645 059	152 458	21 811	819 328
Germany	529 925	134 079	50 573	714 927
Greece	74 123	13 647	4 376	92 149
Hungary	89 344	1 424	2 394	93 281
Ireland	50 182	5 641	11 401	67 285
Italy	391 723	80 657	30 216	502 596
Latvia	20 835	754	134	21 746
Lithuania	29 483	669	106	30 369
Luxembourg	2 184	1 263	2 617	6 070
Malta	3 564	366	261	4 191
Netherlands	141 536	25 288	8 357	175 181
Poland	372 506	2 033	620	375 160
Portugal	68 813	9 990	3 138	82 367
Romania	190 286	2 557	232	193 103
Slovakia	54 401	321	671	55 033

Slovenia	18 666	2 053	446	21 165
Spain	330 854	74 751	20 471	426 076
Sweden	84 030	25 514	5 183	114 907
United Kingdom	576 135	129 105	70 632	775 908
Eu28	4 134 184	727 543	266 551	5 131 500

Source: Elaboration on Eurostat data.

Eurostat, Live births by mother's age and country of birth

Table 8: International migrant population in Germany and Bulgaria(2014).

	International migrant population	Share of total population
DE	9 817 994	12.1%
BG	109 239	1.5%

Source: Elaboration on Eurostat data.

Eurostat, Population on 1st January by sex, citizenship and broad group of country of birth

- *Germany:* in 2014 in Germany immigrants constituted 12.1 per cent of the total population and the cities of Munich, Stuttgart and Cologne and their neighbourhoods were among the areas with the largest foreign-born population in the country (Destatis. Statistisches Bundesamt). 25.8 per cent of the total births are attributed to foreign-born women; more specifically, the mothers of 18.75 per cent of the children born in 2014 do not come from an EU-28 country, while 7.07 per cent of them previously lived in an EU-28 member state different from Germany (see table 8).

• *Bulgaria*: in 2014 immigrants constituted 1.5 per cent of Bulgarian total population and they mainly lived in Sofia and in the surrounding districts or in the regions bordering the Black Sea (Republic of Bulgaria. National Statistical Institute). Only 1.5 per cent of the children born in that year have foreign-born mothers; to be more precise, 1.2 per cent of those children have non-European mothers, while 0.3 per cent have not (see table 8).

1.3.1 Indicators of birth replacement through migration

These introductory observations allow to shed light on the contribution of foreigners to the births in the countries of the European Union; however, the aggregate net impact of migrants on observed trends in period fertility are much more complicated to estimate. These methodological impasses are openly acknowledged by all the observers who work in this field, to the point that some of them even argued that the conventional TFR cannot be used as a reliable tool when analysing the immigrants' fertility.

In fact, as Toulemon and Mazuy (2004) argued, the invisible link existing between the events of migration and childbearing may distort the commonly used measures; in fact, they explain that while the TFR generally depends on age, immigrants' fertility rates are influenced by the timing of migration, rather than by the actual age of

a young man or woman. As a result, they suggested the introduction of a new approach to this demographic measure, which would consider as baseline the number of children ever born at the time of arrival and which would then calculate and sum the fertility rates by the length of time since the entrance in the host country. Thus, this indicator would take into consideration the immigrants' whole reproductive history (both in their homeland and in the new receiving context) and all the offspring a mother has had in the various phases of her life (Toulemon and Mazuy, 2004).

Nevertheless, the method suggested by Toulemon and Mazuy requires detailed data, which can be gathered only through accurate and reliable surveys.

Consequently, the following paragraphs will present the alternative strategies reported in table 9 and outlined by scholars and researchers with the aim of assessing the contribution of immigrants to the number of births, to the processes of generational replacement and to fertility levels.

Table 9: Indicators of birth replacement through migration

S.H. Preston, H. Wang (Preston et al., 2007)	- Intrinsic growth rate - Net reproduction rate in the presence of migration
D. Ediev, D Coleman, S. Scherbov (Ediev et al., 2014)	- Effective Net Migration - Combined Reproduction

1.3.1.1 Intrinsic growth rate and net reproduction rate in the presence of migration

These two statistical tools have been developed by Preston and Wang with the aim of finding alternative strategies to conventional demographical measures (Preston et al., 2007). More specifically, the intrinsic growth rate in the presence of migration is partially based on the same assumptions made by Toulemon and Mazuy. In fact, it classifies immigrants according to their expected number of births at the age when they arrive¹⁰ and provides precise estimates of how fast a population would eventually grow if

current age-specific rates of fertility, mortality and migration were maintained.

This indicator has been completed by the introduction of the net reproduction rate in the presence of migration, which estimates how many daughters would be born to a cohort of female babies along their life and are subject at each age to the observed rates of fertility, mortality and migration. On the one hand, it can be considered a migration-centred completion of the net reproduction rate introduced by Kuczynski (1928), which has now become a primary demographic instrument measuring the average number of daughters who would be born to a female (or a group of females) in her lifetime experiencing

¹⁰ Interestingly, this indicator can also consider the reproductive path of emigrants; in this case, it will take into consideration the expected future number of births at the age when they depart.

the age-specific fertility and mortality rates of a given year. On the other hand, it also improves the measure of the social replacement rate elaborated by Hyrenius (1951) which simply includes the gains or losses due to migration in Kuczynski's net reproduction rate.

These indicators are effective and relatively simple to use; however, they require as inputs statistics concerning age-specific growth rates. While on a national scale most data are readily available, local databases may be incomplete, thus making this tool not applicable to a contextualized analysis. Furthermore, instead of providing useful information and details concerning the actual contributions of immigrants to the current demographic situation of a country, these indicators formulate hypothesis and make projections.

1.3.1.2 Effective Net Migration and Combined Reproduction

These two methods of measurement have been introduced by D. Ediev, D. Coleman and S. Scherbov (2014) in the study mentioned in paragraph 1.2.1.3. They introduce the concepts of effective net migration and combined reproduction to assess the contribution of migrants not only to the population size (which is the aim of the completed net migration) but also to population reproduction.

As far as the ENM is concerned, it refines the CNM by only studying the data for people aged between 15 and 45¹¹; this approach

11 The choice to take into consideration only young men and women aged

provides a useful instrument which can estimate the supply of immigrants to the population of childbearing age and, as a result, to their direct descendants in the future generations.

For example, if we go back to the data for Germany and Bulgaria analysed in paragraph 1.1.2, the *ENM* for these two countries for 2014 can be easily calculated:

Table 10: Effective Net Migration for Germany for 2014.

Live births (2014): 714 927			
Age group	Net migration (2014)	Net migration per 1000 births (2014)	Effective Net Migration
0-4	24 108	34	
5-9	20 045	28	
10-14	16 682	23	
15-19	25 312	35	35
20-24	53 191	74	74
25-29	44 150	62	62
30-34	28 331	40	40
35-39	17 671	25	25
40-44	11 172	16	16

between 15 and 45 relies on specific criteria. First, children migrate with their mothers and fathers, which means that they can be included in the total fertility of their parents; furthermore, this lower age limit also avoids the need to distinguish between the fertility before and after migration since this category of young migrants will constitute the second migrant generation. Secondly, those who are 45 years old or older are not likely to have children younger than 15 years old at the time of migration if we assume that the average age at childbearing is around 30 years; this means that they cannot leave direct descendants in the future generations of the host country. However, Ediev et al. suggest that moderately changes in the age limits applied to this method do not substantially change the results obtained through the ENM.

45-49	7 244	10	
50+	15 051	21	
Total	202 122	CNM = 368	ENM = 252

*Source: Elaboration on Eurostat data.
Eurostat, International Net Migration by age and sex; Live births by mother's age and country of birth.*

Table 11: Effective Net Migration for Bulgaria for 2014

Live births (2014): 67 585

Age group	Net migration (2014)	Net migration per 1000 births (2014)	Effective Net Migration
0-4	- 32	- 0.4	
5-9	- 52	- 0.7	
10-14	- 67	- 1	
15-19	100	1.5	1.5
20-24	- 5	- 0.07	- 0.07
25-29	- 538	- 8	- 8
30-34	- 605	- 9	- 9
35-39	- 518	- 8	- 8
40-44	- 418	- 6	- 6
45-49	- 340	- 5	
50+	- 1109	- 16	
Total	- 3584	CNM = - 53	ENM = -30

*Source: Elaboration on Eurostat data.
Eurostat, International Net Migration by age and sex; Live births by mother's age and country of birth.*

While this first indicator determines the contribution from migrants to that part of the population which reproduces, the value of the *CR* allows to estimate the demographic impact of the fertility rates of migrants. More specifically, it is a synthetic cohort measure estimating

how many offspring of the future generations will be derived both from the births to the natives and from the births to migrants. It is calculated by adding the data concerning migratory fertility (which is obtained by multiplying the ENM by TF of migrants and dividing it by 1000) to the TF of the indigenous population.

So, to sum up:

$$CR = TF + MF = TF + ENM/1000 * Tf_{migr}^{12}$$

For example, for Germany and Bulgaria, the results will be:

Table 11: Combined Reproduction for Germany and Bulgaria for 2014.

	TF	Tf _{migr}	ENM	MF	CR
DE	1.47	1.47	252	0.37	1.84
BG	1.53	1.53	- 30	- 0.05	1.48

Source: Elaboration on Eurostat data. See tables 10 and 11.

The study of these statistics suggests that in Germany immigrant women significantly contribute to the TFR of the country and, as a consequence, to the number of newborns who will constitute the future generations; on the contrary, in Bulgaria foreign-born mothers do not significantly influence the national TFR and their contribution to the future cohorts is limited.

¹² Interesting indicative results can also be obtained by assuming that migrants have the same fertility rate of the natives, which means that the value of TF and Tf_{migr} can coincide (Ediev et al., 2014).

1.4 Final remarks

This presentation of all the strategies, methods of measurement and indicators developed so far by researchers, demographers and scholars has a precise objective: it aims at showing that all the assumptions we will make in the following chapters can be verified with the help of specific statistical tools. Despite the unquestionable validity and correctness of all these scholarly contributions, some of them can be more useful than others for this analysis.

More specifically, general observations comparing the dimension of a cohort over the years or studying the number of births from foreign-born parents can be a useful starting point when trying to understand if a specific country/region/department is experiencing a direct or indirect process of replacement migration. Furthermore, tools that are more precise can provide sounder results, but in this case a screening has to be made. In particular, it can be argued that the ORR and the GRR can show us much more reliable results in the following steps of this analysis, when we will focus on the direct contribution of third country nationals and work on sub-national levels with limited data sets. However, as far as the number of births, the processes of generational replacement and the impact on fertility rates are concerned, our analysis will be limited to simple observations and comparisons; in fact, all the indicators developed to

estimate the extent of these phenomena require complex statistical inputs, which are not always available on a local scale.

In conclusion, this chapter has aimed at being propaedeutic for the comparative work which will be conducted in the following parts of study; in fact, it has provided all the concepts, instruments and strategies which will be necessary to grasp the scale of RM in different contexts.

2. 2. Italy and Veneto: new ports of call

2.1 Italy at migratory crossroad

Since before its unification, Italy has always experienced large-scale inflows and outflows of people but throughout the decades this process has assumed new forms, has gone through different phases and has developed into new stages.

These movements began at the end of the 19th century when massive waves of migrants left the peninsula to move overseas, thus relieving the demographic pressure placed on rural territories and partially improving the quality of life of Italian peasants; nevertheless, this trend progressively slowed down and after World War II many migratory channels closed. When it became difficult to find outlets for potential emigrants, France, Switzerland and Germany started being more and more attractive: these massive outward movements were driven by the remarkable economic development of the post-war

period and reached their full intensity between the 1950s and the 1970s.

On a national scale, this historical moment also coincided with a process of modernization, which soon transformed Italy into one of the most industrialized areas of the world. Nevertheless, these years of prosperity also worsened the underlying imbalance between the flourishing cities of the North and the underdeveloped regions of the South, thus paving the way to the internal migrations which involved almost 2 million people between 1955 and 1975 (Panichella, 2014).

After this peak, both internal and exogenous forces progressively reduced the extent of the phenomenon; in fact, while the oil shock of 1973 limited the international demand for industrial workers, a raise in minimum wages determined a generalized immobility of the population and dissuaded the natives from moving abroad. In other words, emigration did not serve any more as a rebalance instrument of the labour market thanks to which consistent shares of the Italian workforce could be absorbed by much more active economies.

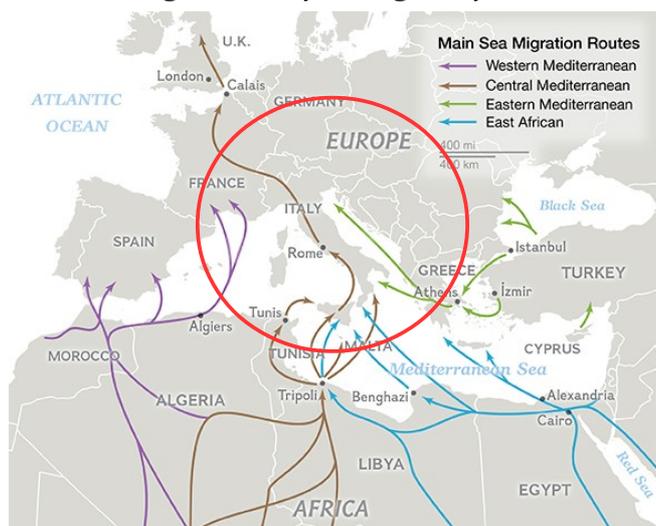
On the contrary, these circumstances made Italy become one of the preferred destinations of immigrants; in fact, the increase of the incomes and the improvement in the quality of life raised the economic and social standards of the natives and generated a growing demand for lowly qualified workers coming from abroad (Einaudi,

2007). Until that moment little attention had been drawn to this issue, which started gaining importance only after the observed increase in the unemployment rate of the autochthonous population and after the publication of the data of the 1981 census, which revealed the presence of thousands of immigrants.

As a result, in comparison with other European countries, Italy has a recent migration history and, after many decades of emigration, it now hosts 5 014 437 foreigners (Istat, 2015). Some key factors have contributed to this figure:

- a) The geographical position of the country, which attracts people coming both from North Africa and from the Balkans (see figure 1). As a consequence, new actors have been playing a crucial role in the migratory movements experienced by the Italian peninsula between the end of the 20th century and the 2000s: today most immigrants come from post-communist or developing countries (see table 12).

Figure 6. Italy at migratory crossroad.



Source: National Geographic. “The world's most congested human migration routes in 5 maps”

Table 12. Foreigners in Italy

	Country	Total	Men	Women
1	Romania	1 131 839	43.0 %	47.0 %
2	Albania	490 483	51.9 %	48.1 %
3	Morocco	449 058	54.1 %	45.9 %
4	China	265 820	51.0 %	49.0 %
5	Ukraine	226 060	21.0 %	79.0 %
6	Philippines	168 238	43.6 %	55.4 %
7	India	147 815	60.1 %	39.9 %
8	Moldova	147 388	33.9 %	66.1 %
9	Bangladesh	115 301	70.4 %	29.6 %
10	Peru	109 668	41.6 %	58.4 %
11	Egypt	103 713	67.5 %	32.5 %
12	Sri Lanka	100 558	54.6 %	45.4 %
13	Poland	98 694	26.7 %	83.3 %
14	Pakistan	96 207	65.3 %	34.7 %
15	Tunisia	96 012	61.9 %	38.1 %

Source: Elaboration on Istat data.

Istat. Demoistat.it. Cittadini stranieri – popolazione residente e bilancio demografico al 31 dicembre 2014. Italia. Tutti I paesi.

- b) The characteristics of national borders, which exclude the possibility of a complete and correct supervision of the territory and encourage illegal immigration. This issue has been a matter of debate during the last few months because Italy has become the first port of call to Europe for thousands of refugees and asylum seekers crossing the Mediterranean to flee from wars in their homeland.

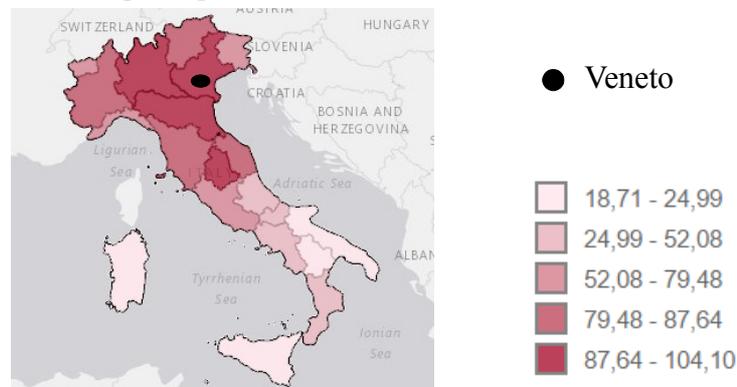
Central and northern Italy hosts the largest share of immigrants and the regions of Lombardia, Veneto, Emilia-Romagna and Umbria record the highest concentration of foreigners per 1000 residents (see figure 2). This part of our work will focus Veneto, a choice supported by precise circumstances.

First, Veneto has the same migration history as Italy. Until the 1960s, thousands of people left this region pushed by mass poverty and moved abroad, thus satisfying the demand for workers of foreign factories; these massive outflows marked a turning point in the economy of the region and fostered its development. Today the situation has reversed: hundreds of enterprises based in Veneto ask for labour force while the availability of workers coming from less developed contexts seems almost unlimited and has contributed to the positive net migration rate recorded during the last few years (6.10 in 2014; Istat). Second, the demography of Veneto mirrors broader

national trends, with below-replacement fertility rates and an ageing population; in other words, the base of the age pyramid is becoming smaller because of a reduction in the number of births, while the apex is expanding due to an increase in life expectancy. Finally, a high concentration of immigrants is distributed in an extremely diversified area, both from an economic and from an environmental standpoint. In fact, between the mountains of the northern provinces, the hills in the heart of the region, large flat lying areas and coastal cities, there is room for a variety of activities ranging from agriculture and fishing to industry and tourism which attract thousands of non-Italian workers.

These characteristics will be combined and studied in the light not only of the countries of origin of immigrants, their age structure or fertility rates but also of broader social, cultural and economic dynamics, thus allowing to associate these features with a specific facet of RM.

Figure 7. Foreigners per 1000 residents in Veneto in 2011.



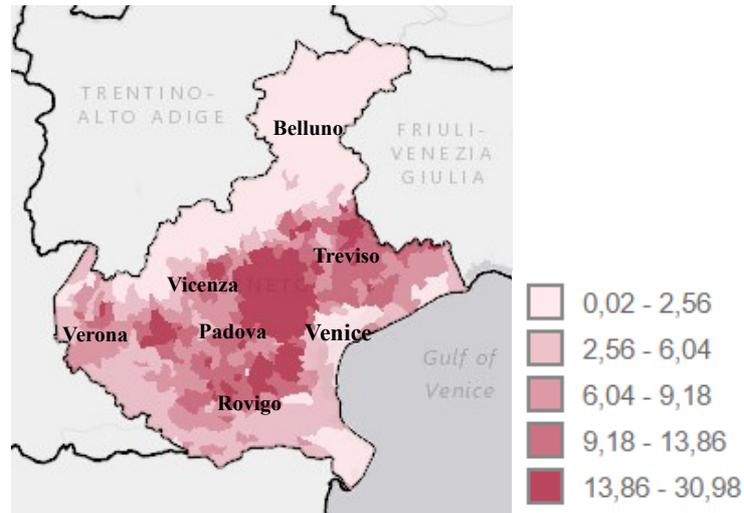
Source: Istat. Gistat. Stranieri per 1000 residenti per regioni.

2.2. A focus on immigrants in Veneto

10.4 per cent of the population of Veneto has an immigrant background and these 511 558 individuals (47,6 per cent of whom are men) mainly come from Romania, Morocco, Albania, Moldova, China, Bangladesh, Serbia, India, Macedonia and Ukraine¹³. These communities are scattered over the whole regional territory, despite heterogeneous concentrations and localised gatherings; in fact, while Verona hosts the largest share of foreigners, Belluno counts the smallest number of immigrants (Istat, 2014). Statistics reveal that while most Romanians live in Padova, most Moroccans have settled down in Verona and most Moldovans in Treviso. Moreover, some nationalities are mainly present only in specific areas, thus fostering territorial peculiarities: for instance, while Treviso hosts a large number of Macedonians, in Venice and Vicenza there is a strong presence of residents coming from Southeastern Asia (Osservatorio Regionale Immigrazione, 2014).

¹³ This strong presence of eastern European citizens is strictly linked to the progressive broadening of the European Union, which has led to an 'europeization' of recent migratory flows.

Figure 8. Foreigners per 1000 residents in Veneto in 2011.



Source: Istat. Gistat. Stranieri per 1000 residenti per province.

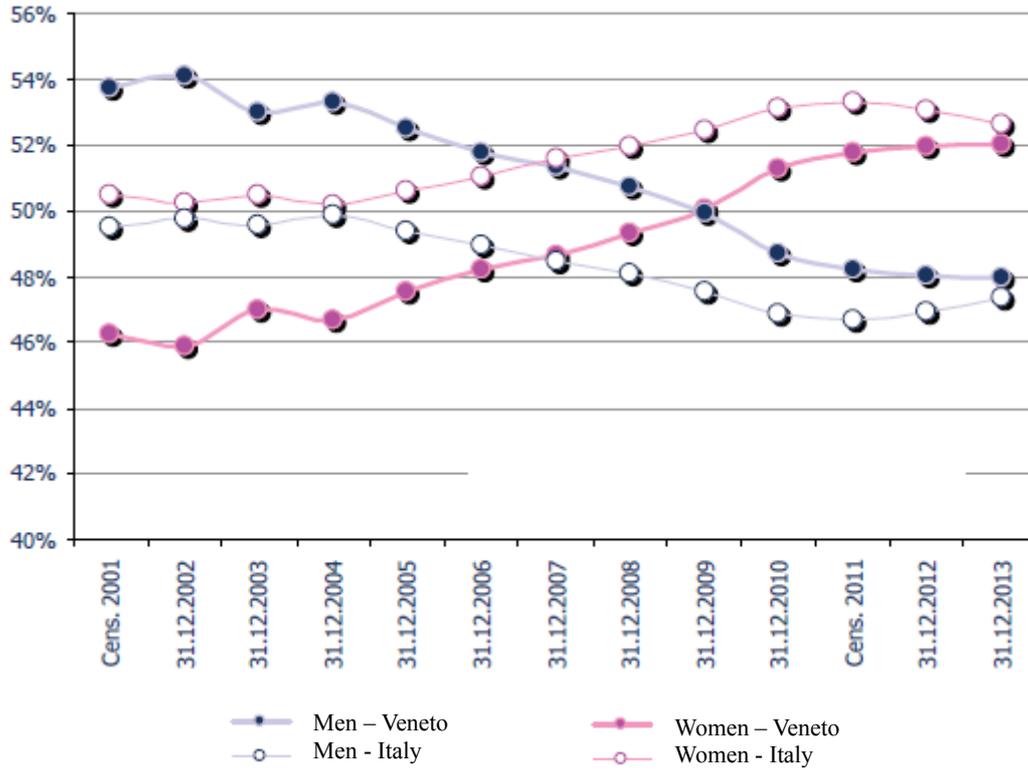
In line with an overall national trend, the foreign presence has experienced a process of 'feminization' during the last few years. While in the past immigrants were mainly men and their wives arrived later as a result of family reunification mechanisms, nowadays women are more and more pioneers in the opening of migratory routes to Veneto (see figure 8). Overall, they are mainly between 25 and 44 years old, thus joining the working-age population (see figure 9); it can be assumed that most foreign-born men and women arrive in Veneto in this specific age interval since regional statistics reveal that the main reasons behind the release of most residence permits are linked to professional integration (Osservatorio Regionale Immigrazione).

Table 13: Presence of immigrants in the provinces of Veneto in 2014.

	Percentage of immigrants	Main countries of origin				
Belluno	6.2% 12 970	Morocco 1 797	Romania 1 697	Albania 1 347	Ukraine 1 272	China 1 073
Padova	10.3% 89 984	Romania 27 410	Moldavi a 11 109	Morocco 10 268	Albania 7 656	China 6 064
Rovigo	7.9% 17 361	Morocco 3 669	China 3 275	Romania 2 928	Albania 1 853	Moldov a 1 209
Treviso	10.4% 98 958	Romania 18 597	Morocco 11 478	Albania 10 128	China 7 577	Macedo nia 7 276
Venice	9.5% 72 284	Romania 13 776	Moldova 8 905	Albania 7 042	Bangladesh 6 116	China 4 673
Verona	11.9% 100 891	Romania 26 301	Morocco 14 579	Moldova 7 185	Sri Lanka 6 905	Albania 6 432
Vicenza	10.6% 94 582	Romania 11 720	Serbia 11 083	Morocco 7 984	India 6 817	Banglad esh 6 500

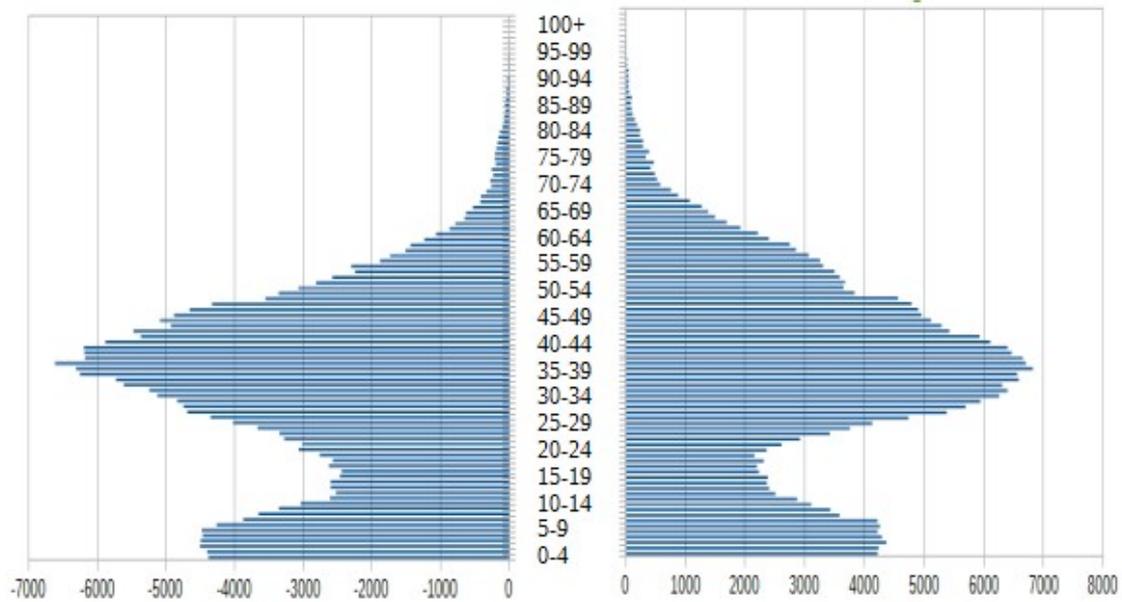
Source: Osservatorio regionale immigrazione. Immigrazione straniera in Veneto. P. 24

Figure 9. Male and female presence in recent migratory inflows in Italy and Veneto between 2001 and 2013.



Source: Osservatorio regionale immigrazione. *Immigrazione straniera in Veneto*. P. 22

Figure 10. Age pyramid for immigrants living in Veneto in 2015.



Source: Elaboration on Istat data.
Istat. *Immigrati.stat. Popolazione residente al 1° gennaio per sesso e età.*

In the following pages attention will be drawn to the characteristics presented so far with the aim of understanding whether and to what extent foreign-born people are contributing to the various demographic scenarios which can be detected within Veneto. More specifically, the following questions will be addressed:

- Do immigrants play the role of 'demographic gap fillers'? Are there any implications for the age structure of the population?
- Do they replace the working-age population?
- Are they influencing regional and provincial fertility rates? To

what extent are they contributing to more births?

- Can we study these mechanisms in the light of other social, economic and cultural characteristics?

2.3 A direct contribution to current demographic scenarios?

As we have seen in the first chapter, when trying to understand whether migrants are influencing the size of the population living in a given area, the first step consists in comparing the dimension of a cohort over the years.

By following the same method adopted by Billari et al. (2012) in their contextualized study of RM focused on some developed countries, the starting point of this analysis will rely on the dimension of the cohort (both sexes combined, independently of the place of birth) born between 1991 and 1995 until 2015. This approach is a useful and effective introductory tool that shows that Veneto and its provinces are actually experiencing a process of direct RM.

On a regional scale, children between 0 and 4 years of age in 1995 progressively grow in number; to be more precise, at each time interval the initial cohort experiences an increase by 2.43 to 5.59 per cent. This trend is also evident at provincial level, even if in different degrees; for example, while Belluno records the lowest increase per time interval, Treviso shows the sharpest. There is a certain degree of

predictability in these figures since this depends on the overall distribution of foreign-born people on the regional territory. Indeed, comparing these statistics to the data concerning the concentration of immigrants presented in paragraph 2.2, it turns out that Belluno is the province with the weakest presence of foreigners, while Treviso comes second in terms of non-native residents.

Even if internal migrations may have played a significant role in this process, it must be underlined that Italians coming from other areas of the country are not significantly increasing the total population of Veneto or inflating the ranks of the various age groups. In fact, in 2014 people moving from other Italian regions only counted for 2.09 per cent in Belluno, 2.58 in Padova, 2.14 per cent in Rovigo, 2.54 per cent in Treviso, 2.04 per cent in Venice, 2.67 per cent in Verona and 2.48 per cent in Vicenza (Istat).

Tables 14 to 21. Size of the cohort born in 1991-1995 (independently of the place of birth) at ages 0-4 to 20-24 for Veneto and the provinces of Belluno, Padova, Rovigo, Treviso, Venice, Verona and Vicenza.

Table 14. Veneto

Year	Age	Dimension of the cohort	
1995	0-4	192 644	
2000	5-9	200 361	+ 4.00%
2005	10-14	211 077	+ 5.34%
2010	15-19	222 877	+ 5.59%
2015	20-24	228 298	+ 2.43%

Table 15. Belluno

Year	Age	Dimension of the cohort	
1995	0-4	8 450	
2000	5-9	8 620	+ 2.01%
2005	10-14	8 919	+ 3.46%
2010	15-19	9 241	+ 3.61%
2015	20-24	9 405	+ 1.77%

Table 16. Padova

Years	Age	Dimension of the cohort	
1995	0-4	36 914	
2000	5-9	37 763	+ 2.29%
2005	10-14	39 678	+ 5.07%
2010	15-19	41 956	+ 5.74%
2015	20-24	44 056	+ 5.00%

Table 17. Rovigo

Year	Age	Dimension of the cohort	
1995	0-4	8 535	
2000	5-9	8 794	+ 3.03%
2005	10-14	9 162	+ 4.18%
2010	15-19	9 719	+ 6.07%
2015	20-24	10 372	+ 6.71%

Table 18. Treviso

Year	Age	Dimension of the cohort	
1995	0-4	34 206	
2000	5-9	36 401	+ 6.41%
2005	10-14	39 086	+ 7.37%
2010	15-19	41 283	+ 5.62%
2015	20-24	42 811	+ 3.70%

Table 19. Venice

Year	Age	Dimension of the cohort	
1995	0-4	31 106	
2000	5-9	31 957	+ 2.73%
2005	10-14	33 587	+ 5.10%
2010	15-19	35 711	+ 6.32%
2015	20-24	37 702	+ 5.57%

Table 20. Verona

Year	Age	Dimension of the cohort	
1995	0-4	36 218	
2000	5-9	37 988	+ 4.88%
2005	10-14	39 767	+ 4.68%
2010	15-19	42 211	+ 6.14%
2015	20-24	44 074	+ 4.41%

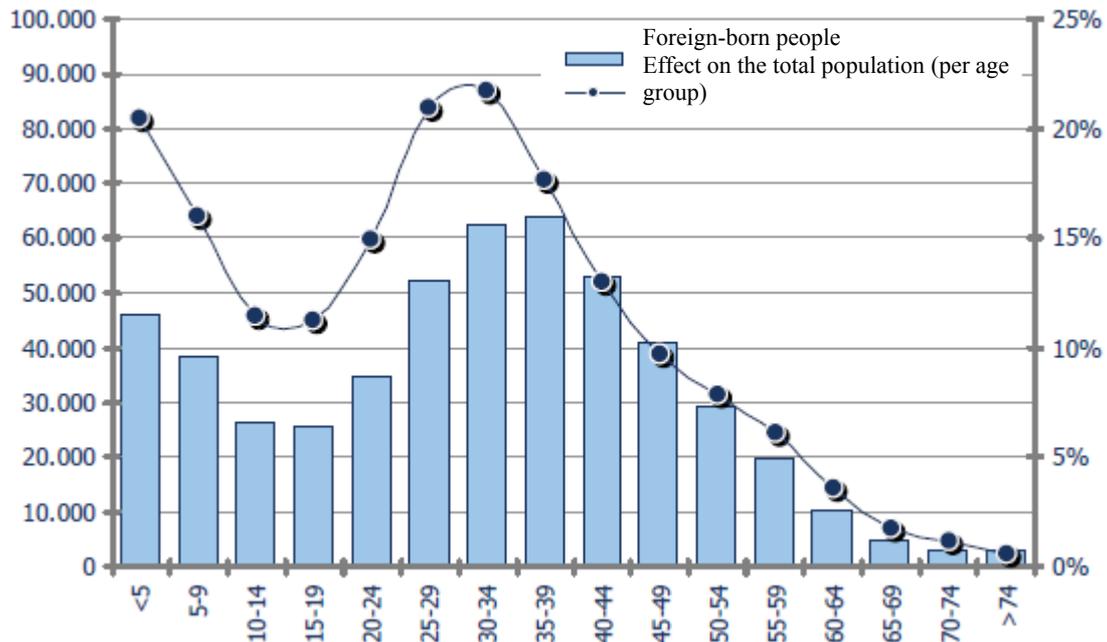
Table 21. Vicenza

Year	Age	Dimension of the cohort	
1995	0-4	37 215	
2000	5-9	38 838	+ 4.36%
2005	10-14	40 878	+ 5.25%
2010	15-19	42 756	+ 4.59%
2015	20-24	43 808	+ 2.46%

Source: Elaboration on data provided by Regione del Veneto. Regione del Veneto. Sistema Statistico Regionale. Popolazione residente nel Veneto. Dati annuali per classi d'età.

Even if these elaborations only focus on young people between 0 and 24 years of age, third-country nationals directly influence the size of all age groups. The figure reported below focuses on this mechanism and studies the age pyramid of immigrants (see figure 9) in the light of their effect on the overall age structure. As we can see, the age groups analysed in the previous lines have the strongest impact on the composition of the population as a whole, inflating the ranks of young age groups with values ranging from 12 to 22 per cent. On the contrary, there is a precise time interval marking a turning point in this trend; in fact, after having reached a peak with the data for immigrants aged 30 to 34, the figure shows a steady and progressive decrease, suggesting that there is not a significant contribution to the dimension of older cohorts.

Figure 11. Age distribution of foreign-born people and share of the overall population of the region per age group. 2013



Source: Osservatorio regionale immigrazione. *Immigrazione straniera in Veneto*. P. 25

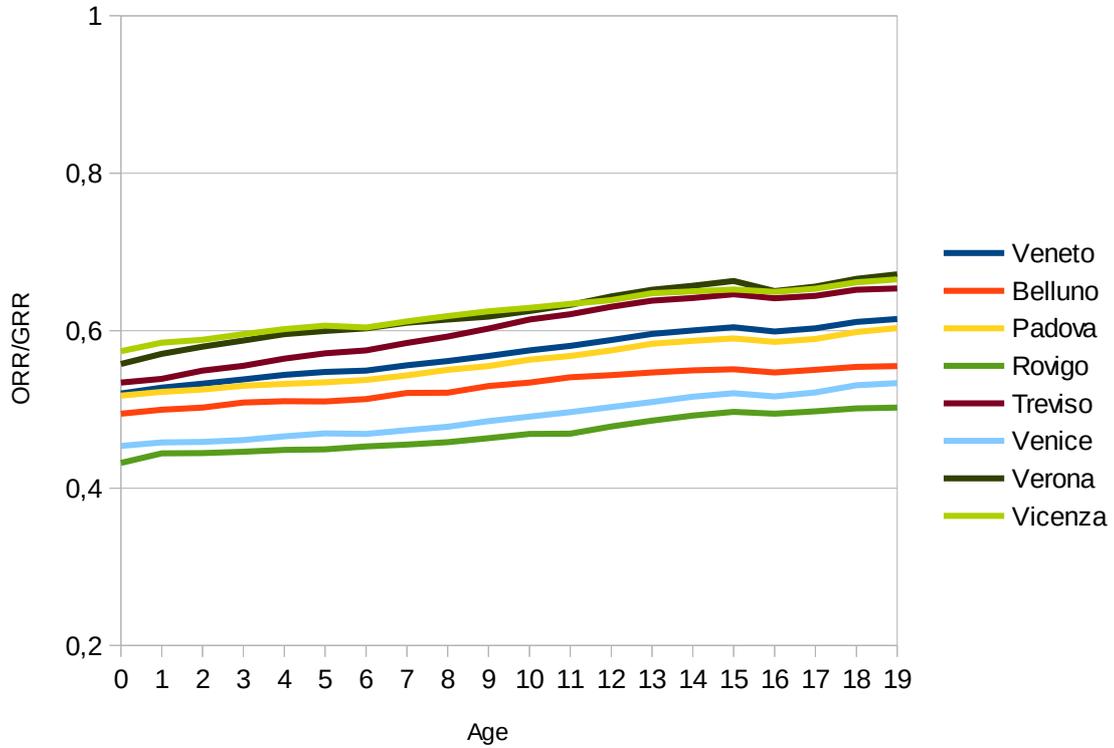
After highlighting that in Veneto immigrants have a direct impact on the demographic characteristics of specific contexts and affect the age structure of the population, we focus on the overall process of replacement of generations. To be more precise, we will try to understand if over time the cohort born in 1995 is substituting the generation of parents (people aged 20 to 35) in the year of birth. From a methodological standpoint, this step of our analysis relies on the ORR/GRR presented in the previous chapter; it can be assumed that for this specific case these two indicators are the most effective since

the Rm introduced by Dalla Zuanna requires data that are not available for this region and its provinces¹⁴.

As figure 11 reveals, the value of the ORR/GRR is below one not only on a regional level but also for every single province, which means that younger generations are not replacing the older ones. This trend suggests that even if immigrants are inflating the ranks of young age groups their contribution to the overall process of intergenerational replacement is limited; in fact, only moderate (but progressive) increases can be observed and, despite their limited dimension, these partial boosts are much more evident in the provinces with the highest concentration of foreign-born residents (i.e. Verona and Treviso).

14 As seen in the previous chapter, the Rm compares the dimension of the cohort of mothers/fathers/parents to that of daughters/sons/children in the same moment of their lives. For example, to compare the size of the total population aged 10 in 2014 and the generation of parents when they also were 10 years old, statistics both for 2014 and for the period 1979-1994 would be needed; while the former are readily available, the latter are not accessible since online databases do not date back to those years.

Figure 12. ORR/GRR for the cohort born in 1995 in Veneto and in its provinces.



Source: Elaboration on data provided by Regione del Veneto. Regione del Veneto. Sistema Statistico Regionale. Popolazione residente nel Veneto.

2.3.1 The impact on the working-age population

The same methodological steps can also be followed when trying to understand if immigrants are contributing to the dimension of the working-age population. Careful attention will be drawn to this issue:

as we have already mentioned in paragraph 2.1, the question of immigration to Italy gained prominence in the public discourse only after that the country observed an increase in unemployment and the natives started being worried about the competition from third-country nationals in the job market.

The tables and the figure above (see table 14 to 21 and figure 12) suggest that if immigrants contribute to the size of young age groups, there will also be thousands of foreign-born young men and women joining the local workforce. To estimate to what extent immigrants are inflating the ranks of the working-age population, the tables below report the dimension of the cohort born between 1970 and 1975 since entering the job market in 1995 (i.e. when they were between 20 and 24 years old) until now (i.e. they are aged between 40 and 44).

As we can see, the number of individuals in that cohort grows with time. What is more, the most significant increase takes place in the 30 to 34 age group; therefore, it turns out that most foreign workers join the native workforce in that precise time interval. After this peak, the cohort size keeps rising but at a slower pace, thus confirming the findings concerning the age structure of immigrants living in Veneto: they significantly influence the dimension of younger age groups but then their demographic impact progressively decreases.

Tables 22 to 29. Diachronic analysis of the cohort entering the job market in 1995 for Veneto and the provinces of Belluno, Padova, Rovigo, Treviso, Venice, Verona and Vicenza.

Table 22. Veneto

Year	Age	Dimension of the cohort	
1995	20-24	333 573	
2000	25-29	356 727	+ 6.94%
2005	30-34	388 210	+ 8.82%
2010	35-39	405 405	+ 4.42%
2015	40-44	406 932	+ 0.37%

Table 23. Belluno

Table 24. Padova

Year	Age	Dimension of the cohort		Years	Age	Dimension of the cohort	
1995	20-24	14 874		1995	20-24	63 544	
2000	25-29	15 322	+ 3.01%	2000	25-29	67 590	+ 6.36%
2005	30-34	15 832	+ 3.32%	2005	30-34	73 840	+ 9.24%
2010	35-39	16 169	+ 2.12%	2010	35-39	77 622	+5.12%
2015	40-44	16 368	+ 1.23%	2015	40-44	78 307	+ 0.89%

Table 25. Rovigo

Year	Age	Dimension of the cohort		Years	Age	Dimension of the cohort	
1995	20-24	17 409		1995	20-24	57 087	
2000	25-29	17 851	+ 2.53%	2000	25-29	63 245	+ 10.78%
2005	30-34	18 658	+ 4.56%	2005	30-34	71 743	+ 13.43%
2010	35-39	19 302	+ 3.45%	2010	35-39	74 215	+ 3.44%
2015	40-44	19 009	- 1.51%	2015	40-44	74 307	+ 0.12%

*Table 26. Treviso**Table 27. Venice*

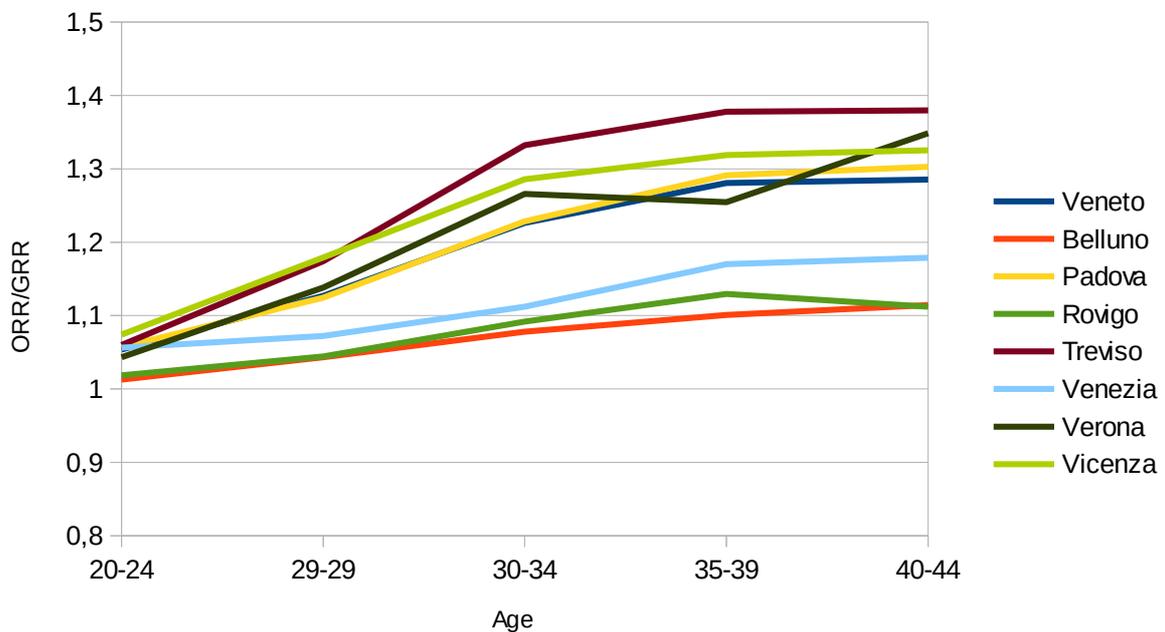
Year	Age	Dimension of the cohort		Years	Age	Dimension of the cohort	
1995	20-24	63 095		1995	20-24	59 046	
2000	25-29	64 040	+ 1.49%	2000	25-29	64 436	+ 8.36%
2005	30-34	66 423	+ 3.72%	2005	30-34	71 661	+ 11.21%
2010	35-39	69 892	+ 5.22%	2010	35-39	76 357	+ 6.55%
2015	40-44	70 407	+ 0.73%	2015	40-44	76 338	- 0.02%

*Table 28. Verona**Table 29. Vicenza*

Year	Age	Dimension of the cohort	
1995	20-24	58 518	
2000	25-29	64 243	+ 8.91%
2005	30-34	70 053	+ 9.04%
2010	35-39	71 848	+ 2.56%
2015	40-44	72 196	+ 0.48%

Source: Elaboration on data provided by Regione del Veneto. Regione del Veneto. Sistema Statistico Regionale. Popolazione residente nel Veneto.

Figure 13. ORR/GRR for the cohort born between 1970 and 1975 and entering the job market in 1995 in Veneto.



Regione del Veneto. Sistema Statistico Regionale. Popolazione residente nel Veneto.

These observations are confirmed by the values of the ORR/GRR¹⁵ comparing the size of the cohort born between 1970 and 1975 since their entrance in the job market (1995) until today (2015) and the total number of the professionally active population in 1995 (workers aged from 20 to 65). Not only does figure 12 show that in Veneto new generations of workers have been substituting the older ones who are now retired, but it also reveals that the rate of replacement increases

¹⁵ As it has already been said when estimating the ORR/GRR for the cohort born in 1995, the statistics that would be necessary to calculate the R_m introduced by Dalla Zuanna are not available for Veneto and its provinces.

over time. Indeed, when the cohort born between 1970 and 1975 entered the job market in 1995, the ORR/GRR was around one. As this group of individuals ages and increases in number (see tables from 22 to 29), its contribution to the workforce becomes more and more significant and, therefore, they largely replace the workforce they joined at the beginning of their career. Even in this case, the figure records a specific trend: after a steady increase until the age group 30-34, the replacement gradually slows down, as it can be predicted by the findings on the age structure of the immigrants.

The contribution of foreigners to the working-age population and to the job market relies on some broader social, demographic and economic dynamics.

Overall, young immigrants are replacing all the native workers born during the baby boom of the 1960s; in fact, the children of all these men and women have a higher level of educational attainment and, as a consequence, are less willing to apply for lowly qualified jobs. This is the consequence of a precise mobility strategy resulting from 'a trade-off between quantity and 'quality" (Dalla Zuanna, 2006) of the offspring. In other words parents seek the best return possible on the human capital of their children and low fertility makes this process of social mobility possible (Dalla Zuanna, 2006). Thus, in order to assure the survival of an economic system largely based on industrial production, Veneto and its provinces need to rely on a

foreign-born labour force prompt in being engaged in low-skilled tasks and in occupying the lowest rungs of the social ladder. Foreigners living in Veneto are mainly employed in these less well paid, more tiring and less prestigious jobs. To be more precise, some data must be highlighted:

1. In 2013 almost 80 000 immigrants have been engaged in the service sector and the main occupations included tourism services (50.0 per cent), trucking and warehousing (13.4 per cent), cleaning activities (9.7 per cent) and domestic work (8.4 per cent). As far as this last domain is concerned, a focus on the ageing of the population reveals that foreign-born workers are actually filling the gap in the demand for the assistance for old people. In fact, even if in southern European countries like Italy and Spain children are supposed to take care of their old parents, statistics show that there has been an alignment between supply and an emerging demand, which could also have significant consequences on the fertility levels of the native population. In other words, children have much more time to start their own family if foreign-born domestic workers are available to take care of their old parents.
2. The second sector has engaged 53 148 foreign-born workers,

who have mainly been employed in the mechanic industry (24.5 per cent), in building (20.8 per cent), in the textile sector (13.3 per cent), in the food industry (12.0 per cent) and in the tanning industry (8.9 per cent).

3. As for agriculture, it recruited 33 302 non-native farmers in 2013.

Nevertheless, more and more foreigners living in Veneto now have the same educational attainment as the Italians. In fact, younger cohorts have completed their secondary education and in most cases they were enrolled in professional or technical institutes (Osservatorio Regionale Immigrazione). Consequently, while their parents who arrived between the 1990s and 2000s directly entered the Italian job market after having completed their studies in their homeland, new generations with an immigrant background are subject to a process of cultural integration adapting to the educational standards of the autochthonous population.

However, the economic crisis started in 2008 and its remarkable effects have also affected immigrant workers; what is more, higher unemployment rates have been recorded for non-natives (Regione del Veneto – Statistiche). This trend has been much more evident and worrying for some third-country nationals; in fact, an

analysis of the data gathered by the Osservatorio Regionale Immigrazione (Regional Observatory on Immigration) and by the regional statistical system shows that Moroccan, Serbian, Bangladeshi and Ukrainian communities show the largest share of unemployed population. This also depends on the sector in which immigrants are engaged and on the kind of contract to which they are subjected. For example, Moroccans, Serbians, Bangladeshi and Ukrainians are mainly employed as domestic workers or care attendants and their careers and contracts are potentially much more unstable. On the contrary, the low unemployment rate characterizing Chinese communities is correlated with the significant presence of Chinese entrepreneurs who start their business in Veneto; this means that the larger the number of economic activities contributing to the creation of cultural, social and economic networks, the lower the possibility to be unemployed. (Osservatorio Regionale Immigrazione)

2.4 An indirect contribution to future demographic scenarios?

Even if this analysis has revealed that immigrants are inflating the ranks of some specific age groups but are not paving the way to an overall process of intergenerational replacement, this does not automatically mean that foreign-born people living in Veneto are not indirectly contributing to future demographic scenarios by giving birth

to large cohorts of children. On the contrary, in 2014 from 17.21 to 30.13 per cent of the babies born in the provinces of Veneto have immigrant mothers (see table 30).

Table 30. Births from foreign mothers in Veneto in 2014.

	Total number of births	Births from foreign mothers
Veneto	40 629	11 047 27.43%
Belluno	8 184	244 17.21%
Padova	7 544	2 069 26.33%
Rovigo	1 417	387 24.15%
Treviso	7 744	2 174 28.07%
Venice	6 283	1 627 25.89%
Verona	7 855	2 466 30.13%
Vicenza	1 602	2 080 27.57%

*Source: Elaboration on Istat data.
Istat. I.stat. Nati vivi – caratteristiche della madre.*

Interesting results on this issue also emerge by focusing on the figures about foreign women of childbearing age and their fertility rates; however, a further step of this analysis will just make a comparison between foreign-born and native resident women, rather than focusing

on the various countries of origin¹⁶.

In Veneto 15.88 per cent of women of childbearing age (15-49 years old) are not born in Italy. The distribution by provinces is the following: Belluno 10.40 per cent, Padova 15.71, Rovigo 13.17, Treviso 16.70, Venice 15.21, Verona 17.80, Vicenza 15.71. A question arises: are they able to influence the regional and provincial TFRs? As it has already been seen at the beginning of this chapter, native women have a very low fertility rate and have less and less children. To be more precise, they record a TFR ranging from 1,02 children/woman in Rovigo to 1.32 children/woman in Treviso and Vicenza; on the contrary, immigrants have a TFR ranging from 1.85 in Belluno to 2.15 in Verona and Treviso.

Nevertheless, even if foreign women show much higher fertility rates than the natives, their overall contribution to the regional and provincial TFRs depends on the number of women of childbearing age; in fact, the data gathered by Istat reveal that the net effect of their TFR is limited and amounts to:

- 0,07 per cent in Belluno (TFR of immigrants 2.03 children/woman; TFR of natives 1.24 children/woman; provincial TFR 1.31 children/woman);

16 Online databases (Istat; Regione del Veneto – Sezione Sistema Statistico Regionale) gathering information on age intervals and fertility rates merely distinguish between Italians and foreigners, thus not providing underlining the differences among the various countries of origin.

- 0,15 per cent in Padova (TFR of immigrants 1.85 children/woman; TFR of natives 1.24 children/woman; provincial TFR 1.39 children/woman);
- 0,13 per cent in Rovigo (TFR of immigrants 1.9 children/woman; TFR of natives 1.03 children/woman; provincial TFR 1.16 children/woman);
- 0,17 per cent in Treviso (TFR of immigrants 2.15 children/woman; TFR of natives 1,32 children/woman; provincial TFR 1.49 children/woman);
- 0,13 per cent in Venice (TFR of immigrants 1.93 children/woman; TFR of natives 1.18 children/woman; provincial TFR 1.31 children/woman);
- 0,16 per cent in Verona (TFR of immigrants 2.15 children/woman; TFR of natives 1.29 children/woman; provincial TFR 1.45 children/woman);
- 0,15 per cent in Vicenza (TFR of immigrants 2.2 children/woman; TFR of natives 1.32 children/woman; provincial TFR 1.47 children/woman).

As we have seen in paragraph 2.3, also in this case where the concentration of third-country nationals is larger, their contribution to current and future demographic scenarios is stronger. In fact, the net effect of foreign women on TFRs is larger in Verona and Treviso,

which host most of the immigrants living in Veneto. Among the most represented countries within these two provinces, Morocco records a domestic TFR of 2.13 children/woman (CIA - World Factbook). This means that if Moroccan women stick to the childbearing patterns of their homeland, they will surely have a much more important influence on the demography of the host context; this point will be further developed in the following chapter because the availability of data on TFRs by country of origin will allow to make interesting observations on this issue.

2.5 Final remarks

The elaborations presented in this chapter aimed at associating this specific context with a precise facet of RM. Two main trends have been observed during this analysis. On the one hand, foreigners are significantly contributing to the age structure of the population and, to be more precise, they are inflating the ranks of young age groups. This trend is evident in all the provinces of the region, even if in the areas hosting largest shares of third-country nationals it is stronger. Despite this, immigrants are not significantly contributing to a process of intergenerational replacement. On the contrary, younger cohorts (independently of the place of birth) are not numerically substituting their parents. However, the figures for the working-age population

have showed interesting results: foreign countries are providing Veneto with thousands of workers, who are not only massively joining the autochthonous workforce but they are also assuring the survival of a whole economic system by undertaking low-skilled activities rejected by young native workers with a higher educational attainment.

On the other hand, foreigners are not having a significant impact on future demographic scenarios; in fact, even if many newborns have an immigrant background, the share of women of childbearing age coming from abroad is small and consequently the net effect on regional and provincial TFRs is limited.

Even if this part of this analysis has not provided detailed data classified by country of origin, sound and unequivocal results have been obtained. Thanks to them, it has also been possible to demonstrate that, when moving abroad, immigrants are able to adapt and to accept the challenges presented by the new social, cultural and economic context, which presumably makes the process of integration faster.

3. France and Île-de-France: a long history of immigration

3.1 France: a port of call for immigrants since the 18th century

Contemporary France is strongly influenced by a long tradition of recruitment of foreign workers as well as by the legacy of its colonial past. Immigrants started arriving in the 'Hexagon' between the 18th and the 19th century, when the conjunction of a massive industrialization and a fall in birth rates resulted in a severe labour shortage, thus balancing the supply and demand for workers in Europe. From then on, the absolute number and the percentage of foreigners continued to increase also thanks to the decolonization of the post-war period, which repatriated thousands of 'Pieds-Noirs'¹⁷ and attracted thousands of people coming from Maghreb and Sub-Saharan Africa. These migratory inflows to France were so remarkable that starting from the

¹⁷ This term refers to all Europeans who had been living in Algeria, Morocco and Tunisia for several generations and were expelled after the fall of the French colonial empire in North Africa between 1956 and 1962.

1970s until the turn of the millennium censuses recorded the same growth rate for the non-native and for the total population.

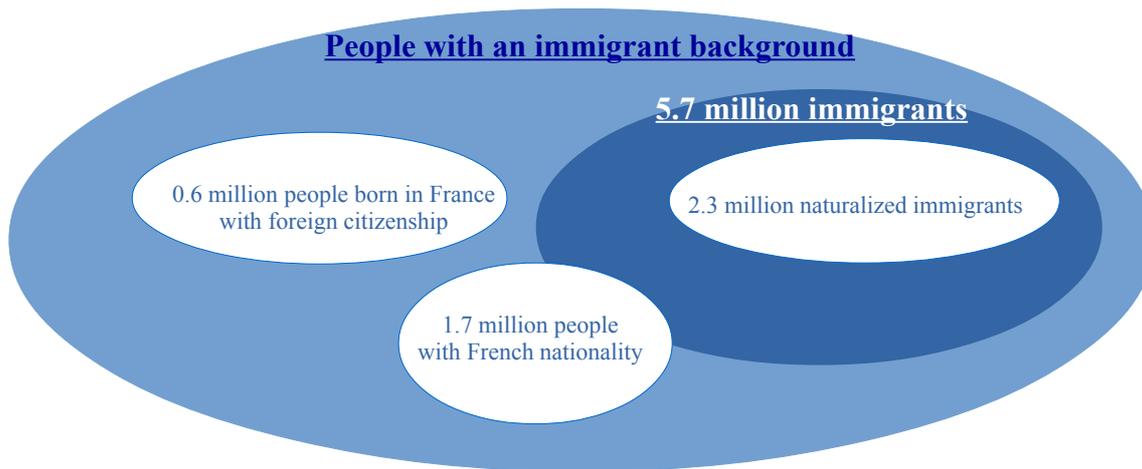
Today France hosts 5.7 million people (11.4 per cent of the total population) with different immigration statuses: 2.3 million were naturalized, 1.7 million acquired the French nationality and 0.6 million are born in France but have a foreign citizenship (either because they are born from mixed couples or because they have married a French citizen) (Insee: see figure 14).

Throughout the decades there have been significant changes in the composition of the population. Even if there continues to be a strong presence of European citizens (mainly Portuguese, Italians and Spaniards, but also English, Germans and Belgians), the European communities arrived between the 19th and the 20th century have almost been outnumbered by large groups of Africans and Asians who moved to France after the 1950s. In fact, today most of the immigrants come from ex-colonies like Algeria, Morocco and Tunisia but also Senegal, Ivory Coast, Cameroon, Vietnam and Haiti. Unlike Italy, France did not record a remarkable increase in inflows from eastern European countries after the enlargement of the EU and at present there are only small groups of Romanians and Polish (see table 31).

As far as the sex structure is concerned, two trends can be observed: while countries which have always provided France with a high number of foreigners (e.g. Algeria, Morocco, Portugal and Italy)

record an almost equal presence of men and women, other European, African, Asian and Caribbean nationalities are mainly represented by women (see table 31).

Figure 14: People with an immigrant background in France in 2015.



Source: Elaboration on Insee data.
Insee. Population par sexe, âge et situation quant à l'immigration.

Table 31: Foreigners in France in 2012.

	Country	Total	Men	Women
1	Algeria	748 034	51.66%	48.34%
2	Morocco	692 923	51.37%	48.63%
3	Portugal	599 333	51.38%	48.62%
4	Italy	292 592	49.03%	50.97%
5	Tunisia	251 220	58.78%	41.22%
6	Turkey	248 159	53.30%	46.70%
7	Spain	245 077	43.99%	56.01%
8	United Kingdom	152 592	49.65%	50.35%
9	Germany	121 830	38.89%	61.61%

10	Belgium	112 726	44.94%	55.06%
11	China	97 049	41.28%	58.72%
12	Poland	92 643	38.30%	61.70%
13	Senegal	85 422	53.73%	46.27%
14	Romania	82 428	47.63%	52.37%
15	Vietnam	75 620	43.45%	56.55%
16	Haiti	73 813	43.78%	56.22%
17	Serbia	72 109	49.77%	50.23%
18	Ivory Coast	71 228	43.50%	56.50%
19	Cameroon	70 766	39.28%	60.72%
20	Democratic Republic of Congo	66 784	47.24%	52.76%

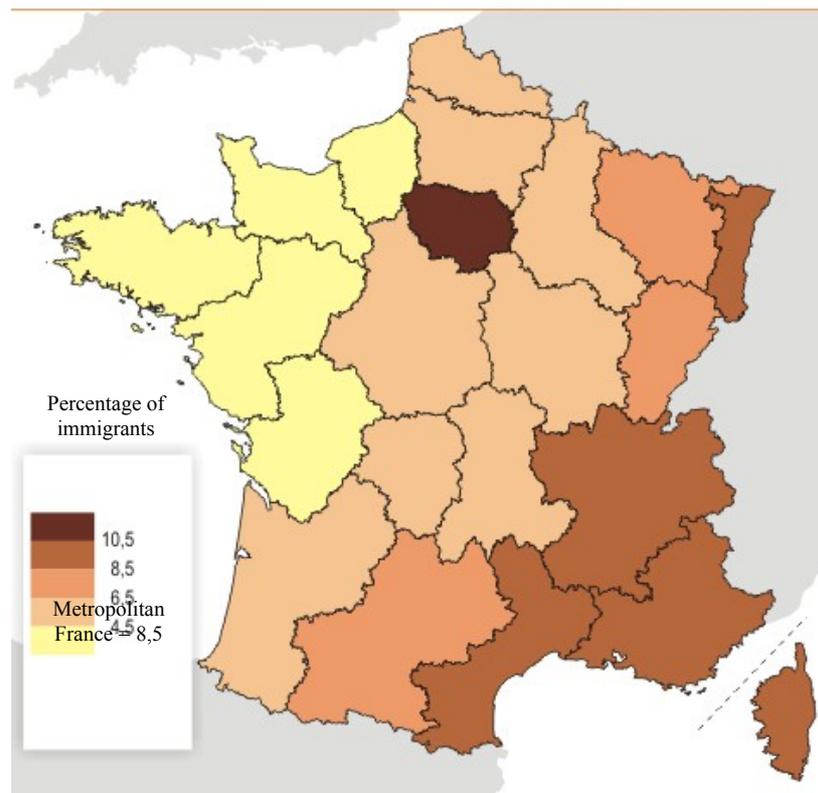
*Source: Elaboration on Insee data
Insee. Les immigrés par sexe, âge et pays de naissance.*

To present a complete overview of RM in France, attention will be drawn to Île-de-France; this region experienced a remarkable urban development after massive arrivals of foreigners determined by the de-industrialization and the closure of many coal mines and shipyards in other areas of the 'Hexagon' which had always attracted large groups of immigrants. This growth was so impressive that while between 1982 and 1990 the foreign presence decreased by 3.6 per cent on a national level, it rose by 2.8 per cent in Île-de-France, a territory that hosts today 40 per cent of the immigrant population of the whole country. (Lillo et al., 2009)

As a consequence, a regional focus will allow to understand which facet of RM characterizes a context with a long history of

immigration and with one of the highest TFRs in Europe; these issues will be also analysed with the aim of highlighting the major differences between this case study and Veneto.

Figure 15. Regional distribution of immigrants in France in 2012



Source: Insee. Octant Info.

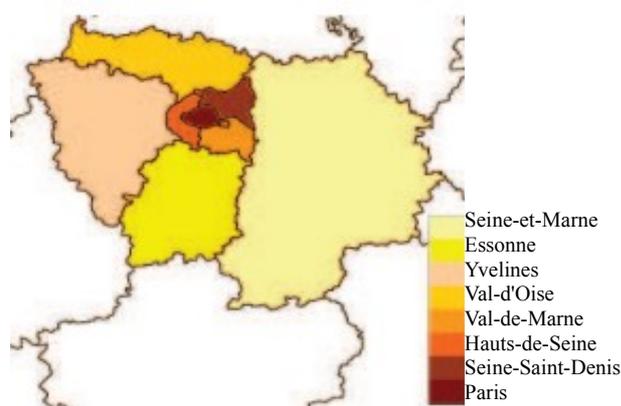
3.2 Île-de-France: a melting-pot

The agglomerations of Île-de-France hosted 1 533 306 immigrants in 2012, which means that 12 per cent of the population was born

abroad. This large concentration of people with different origins is homogeneously distributed in the various provinces of the region, with values ranging from 12.29 to 28.37 per cent of the total population (see table 32). As compared to the analysis conducted on Veneto in the previous chapter, this trend suggests that the longer the history of immigration of a specific territory, the higher the number of existing networks fostering new arrivals of foreigners.

In fact, the first thing which can be observed from the data presented in table 32 is that there is a strong presence of people coming from the areas that have always provided France with large stocks of immigrants, that is to say Portugal and Maghreb (with Algeria, Morocco and Tunisia among the most represented nationalities in all the 'départments'). However, there are also interesting peculiarities: while in Paris there are many groups of Europeans (especially Italians), the industrial peripheral provinces of the 'petite couronne' and the 'grande couronne' attract a high number of workers employed in factories and in the building sector, mainly coming from Turkey and African countries, such as the Democratic Republic of Congo, Senegal, Ivory Coast and Mali.

Figure 16. Plan of Île-de-France.



Source: Insee. Octant info.

Table 32: Presence of immigrants in the provinces of Île-de-France in 2012.

	Percentage of immigrants	Main countries of origin				
Paris	20.33% 455 650	Algeria 45 935	Morocco 37 370	Tunisia 29 064	Portugal 28 578	Italy 16 435
Seine-et-Marne	12.29% 166 515	Portugal 29 960	Algeria 18 960	Morocco 12 122	Turkey 7 508	Democratic Republic of Congo 6 222
Yvelines	12.72% 179 687	Portugal 31 845	Morocco 27 102	Algeria 19 963	Senegal 5 690	Tunisia 5 152
Essonne	14.24% 176 293	Portugal 31 388	Algeria 19 743	Morocco 16 439	Tunisia 8 194	Turkey 8 045
Hauts-de-Seine	17.08% 271 095	Morocco 40 035	Algeria 38 662	Portugal 25 287	Tunisia 13 388	Ivory Coast 6 695
Seine-Saint-Denis	28.37% 436 564	Algeria 77 263	Morocco 47 307	Portugal 32 197	Tunisia 24 136	Mali 19 045

Val-de-Marne	19.62% 263 317	Algeria 39 909	Portugal 36 167	Morocco 20 951	Tunisia 14 601	China 8 595
Val-d'Oise	17.78% 211 093	Algeria 29 391	Morocco 26 578	Portugal 25 962	Turkey 15 413	Tunisia 9 664

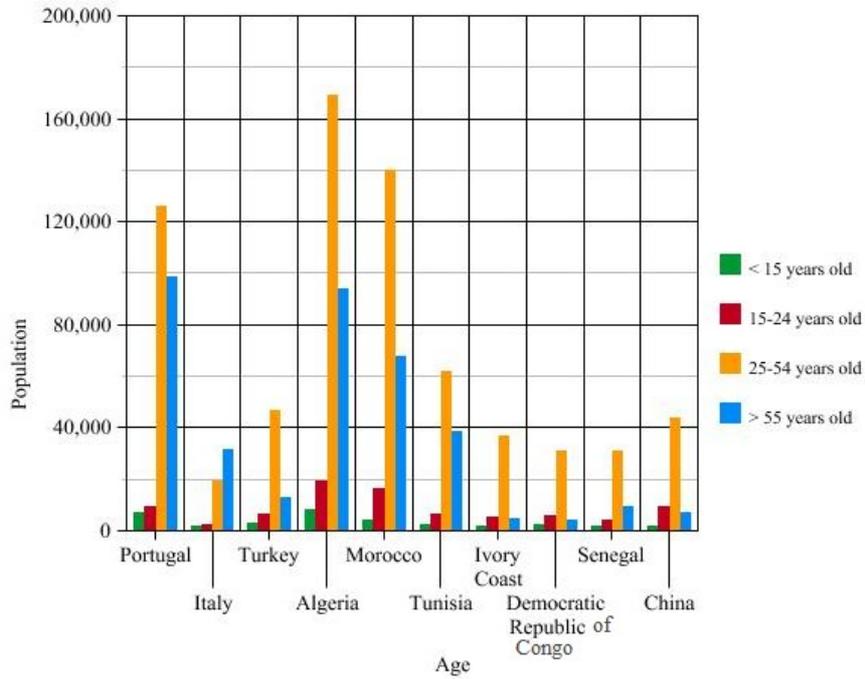
Source: Elaboration on Insee data

Insee. Les immigrés par sexe, âge et pays de naissance.

As for the age structure, the figure below reports statistics highlighting interesting differences as compared to the case studied in the previous chapter. It must be observed that from a methodological standpoint the length of the history of immigration of a country also influences the type of figures provided by national databases. In fact, while a lack of detailed data for Italy and its regions forced to conduct an analysis relying on a simple comparison between the age pyramid of the foreigners and that of the natives, INSEE provides national, regional and provincial statistics on the age structure of all the nationalities present on the territory. Consequently, it has been possible to produce this figure (see figure 17), which aims at studying the age structure of the immigrants living in Île-de-France by devoting a special attention to the various countries of origin.¹⁸

¹⁸ It would be equally possible to draw the same figure for the various provinces of Île-de-France; however, since there would not be significant differences with the contents of figure 17, a more effective summary regional overview is preferred.

Figure 17. Age structure of the immigrant population for the main countries of origin in Île-de-France in 2012.



Source: Elaboration on Insee data

Insee. Les immigrés par sexe, âge et pays de naissance.

A first elementary remark makes a distinction between the areas that have always provided France with large stocks of immigrants and countries of more recent departure. It can be observed that Portuguese, Algerian, Moroccan and Tunisian communities are characterized by a significant presence of people over 55; in other words, the citizens of those countries who opened migratory routes to France in the post-war period and their children are now retired, thus inflating the ranks of old age groups. This trend cannot be observed for Turkey, Ivory Coast,

the Democratic Republic of Congo, Senegal and China, which have only recently started fostering migratory flows. Even if to different degrees, people aged 25 to 54 are always the most represented age group, which means that the most significant contribution made by foreigners concerns the working-age population. On the contrary, the data reported in figure 17 record a small number of children and teenagers. This suggests two possibilities:

- The sons and daughters of non-natives who have been living in France for a long time have obtained the French nationality and belong to the second or third generation of immigrants; as a consequence, they are not taken into consideration by the statistics on immigrants per country of origin. This may be the case of the children or the grandchildren of Portuguese, Moroccan, Algerian and Tunisian nationals.
- Migratory routes from Sub-Saharan Africa and Asia have only recently been opened by young people willing to face the risk of moving abroad; this means that either they do not have enough capital to start a family or family reunification mechanisms have not been put in place yet.

These dynamics will be further developed in the following paragraphs, which aim at discovering which dimension of RM can be associated to Île-de-France; it can be anticipated that from a methodological standpoint this analysis will be much more detailed than the study conducted in the previous chapter, thanks to a wider availability of data.

3.3 Long history of immigration, direct contribution to current demographic scenarios?

The answer to this question is: it depends. In fact, the data reported by Billari et al. (2012) suggest that in France as a whole the arrival of foreigners is not replacing births. To be more precise, their analysis reveals that for the cohort born between 1980 and 1984 (independently on the place of birth) there have not been significant changes in its dimension as time passes.

Table 33. Size of the cohort (in thousands) born in 1980-84 (independently of the place of birth) at ages 0-4 to 45-45. Selected highly-developed countries.

Year	Age	Italy	Spain	Germany	Japan	S. Korea	France	UK	USA
Cohort born in 1980-84									
1985	0-4	2,998	2,512	4,145	7,406	3,757	3,807	3,608	18,040
1990	5-9	2,981	2,515	4,267	7,459	3,807	3,861	3,634	18,326
1995	10-14	3,010	2,554	4,471	7,471	3,727	3,883	3,649	19,243
2000	15-19	3,052	2,614	4,588	7,481	3,692	3,928	3,641	20,263
2005	20-24	3,178	2,923	4,847	7,483	3,662	3,942	3,924	21,067
2010	25-29	3,467	3,329	4,939	7,514	3,646	4,023	4,174	22,069
2015	30-34	3,582	3,446	4,939	7,534	3,631	4,064	4,264	22,370
2020	35-39	3,673	3,516	4,977	7,538	3,615	4,092	4,310	22,601
2025	40-44	3,724	3,575	4,992	7,526	3,595	4,103	4,315	22,699
2030	45-49	3,741	3,608	4,983	7,496	3,567	4,093	4,296	22,634
Cohort born in 1950-54									
1985	30-34	3,783	2,497	5,542	9,069	3,116	4,290	3,777	20,131

Source: Billari et al., 2012. P. 108

However, as we have already said, the majority of the immigrants living in France is concentrated in Île-de-France; this means that an analysis carried out on a national scale may underestimate the direct contribution of foreign-born people to the process of RM in a specific territory. In fact, a focus on people born between 1970 and 1975 in Île-de-France (see table 34 and 35) reveals that foreigners are inflating the ranks of all age groups between 0 and 44. Nevertheless, despite the arrival of massive waves of immigrants, most 'départments' taken individually do not record increases in the dimension of this cohort

throughout its lifespan; on the contrary, significant ups and downs can be observed in almost all provinces, thus precluding the possibility of estimating the effective contribution of migrants to the dimension of a generation over time. This mechanism is strictly linked to the negative NMR which has characterized the agglomerations of the Île-de-France during the last 50 years (see table 36); in fact, where and when the NMR is positive¹⁹, it is much easier to observe the contribution of immigrants to the size of a cohort over time.

Table 34 and 35: Size of the cohort born in 1970-1975 (independently of the place of birth) at ages 0-4 to 40-44 for Île-de-France and the provinces of Paris, Seine-et-Marne, Yvelines, Essonne, Hauts-de-Seine, Seine-Saint-Denis, Val-de-Marne, Val-d'Oise.

	Île-de-France	Paris	Seine-et-Marne	Yvelines	Essonne
0-4	763 611	121 043	68 250	100 435	88 174
5-9	740 381	100 431	78 387	105 133	89 252
10-14	736 935	98 005	85 626	106 142	89 394
15-19	759 655	119 306	88 745	105 163	87 622
20-24	860 460	194 971	83 549	98 219	87 698
25-29	934 863	236 250	87 142	98 779	86 334
30-34	951 627	218 605	94 400	102 518	89 780
35-39	904 094	195 404	101 015	104 156	90 023
40-44	876 159	160 174	104 059	105 034	91 493

¹⁹ I.e. in Seine-et-Marne since the birth of the cohort until today, and in Yvelines, Essonne and Val-d'Oise until 1990 (that is to say when the cohort is aged between 10 and 15).

	Hauts-de- Seine	Seine-Saint- Denis	Val-de- Marne	Val-d'Oise
0-4	100 963	111 878	96 764	76 131
5-9	89 791	107 467	89 064	80 856
10-14	85 954	102 715	85 125	83 974
15-19	88 026	102 309	84 466	84 018
20-24	107 877	110 566	94 603	82 977
25-29	131 368	111 797	102 621	80 572
30-34	138 560	118 413	106 045	83 306
35-39	129 565	114 780	100 985	84 279
40-44	122 745	112 110	98 927	84 182

Source: Elaboration on Insee data

Insee. Population selon le sexe et âge quinquennal de 1968 à 2012.

Table 36. Net migration rate for Île-de-France and its provinces from 1968 to 2012.

	1968- 1975	1975- 1982	1982- 1990	1990- 1999	1997- 2007	2007- 2012
Île-de-France	+0.2	-0.4	-0.1	-0.5	-0.2	-0.4
Paris	-2.1	-1.1	-0.6	-0.7	-0.4	-0.3
Seine-et- Marne	+2.5	+1.7	+1.7	+0.4	+0.2	+0.1
Yvelines	+2.3	+0.5	+0.2	-0.5	-0.4	-0.7
Essonne	+3.4	+0.1	+0.3	-0.4	-0.2	-0.3
Hauts-de- Seine	-1.0	-1.1	-0.7	-0.5	0	-0.5
Seine-Saint- Denis	-0.2	-0.8	-0.5	-1.0	-0.2	-0.8
Val-de- Marne	+0.3	-0.9	-0.5	-0.7	-0.1	-0.4
Val-d'Oise	+1.8	+0.4	+0.7	-0.3	-0.4	-0.6

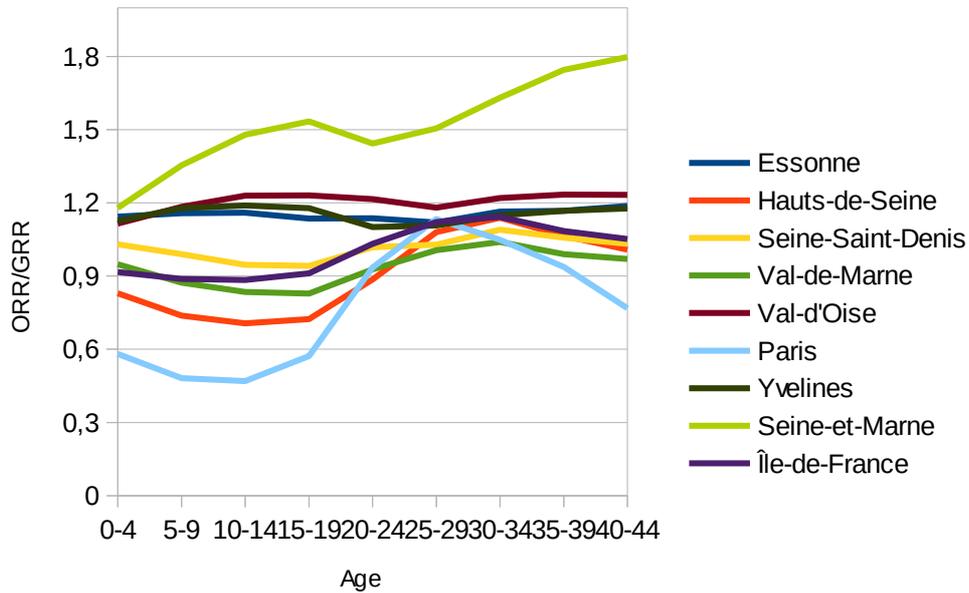
Source: Elaboration on Insee data

Insee. Évolution de la population.

These ups and downs also have major consequences on the dynamics behind the replacement of the generation of parents. In fact, as figure 18 shows, the ORR and the GRR do not produce a linear pattern; on the contrary, they follow an irregular trend mirroring the increases and decreases in the number of children born between 1970 and 1975 in the various provinces of the Île-de-France. Despite this irregularity, an ORR and a GRR above one and, as a consequence, a replacement of the generation of parents is apparent in Seine-et-Marne, Val-d'Oise, Essonne and Yvelines throughout the whole course of the cohort's life. However, as far as Seine-Saint-Denis, Val-de-Marne, Hauts-de-Seine and Paris are concerned, children are able to demographically substitute their parents only starting from the age of 25-29²⁰.

20 Paris is an exception: after a peak between 25 and 29 years old, the ratio between the dimension of the cohorts of children and parents decrease with time.

Figure 18. ORR and GRR for the cohort born between 1970 and 1975 in Île-de-France and in its provinces.



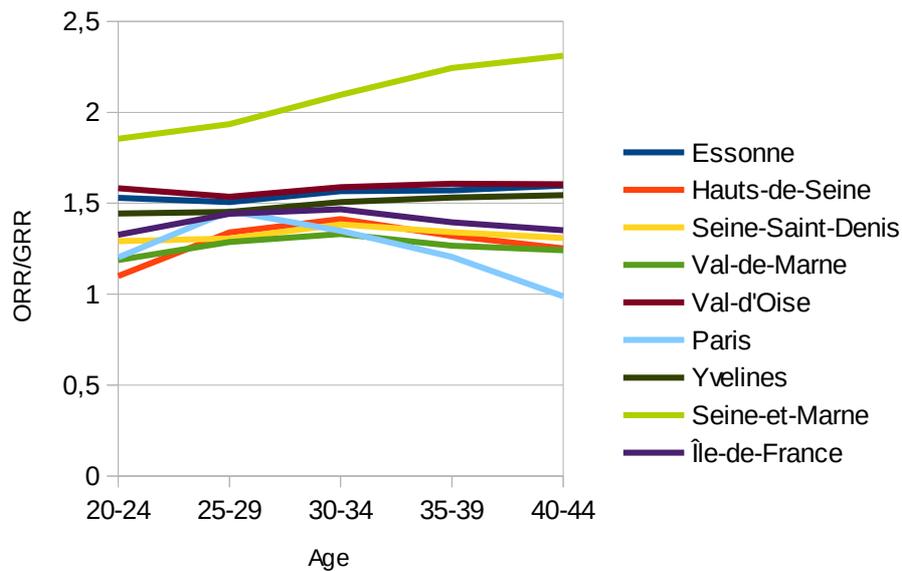
Source: Elaboration on Insee data
Insee. Population selon le sexe et l'âge quinquennal de 1968 à 2012.

3.3.1 The contribution to the job market

After that the cohort born between 1970 and 1975 entered the job market in 1995, it has been interested by the same ups and downs presented in the previous paragraph; this means that it is difficult to soundly assess the contribution of foreign-born people to the working-age population. Despite this, the figure reporting the ORR and the GRR for Île-de-France and its provinces follows a regular pattern. In other words, despite massive outflows and a negative NMR, the

cohort born between 1970 and 1975 and the immigrants who have inflated its ranks throughout its lifespan have been able to constantly replace the workforce they joined at the beginning of their career.

Figure 19. ORR and GRR for the cohort entering the job market in 1995 in Île-de-France and in its provinces.



Source: Elaboration on Insee data.
 Insee. Population selon le sexe et l'âge quinquennal de 1968 à 2012.

However, even if all provinces register similar data,, Seine-and-Marne records the highest value of ORR and GRR in Île-de-France. This trend reflects the urbanization this territory has experienced during the last decades; in other words, when young men and women entered the job market in 1995 they did not join a massive workforce but rather small groups of peasants, thus also fostering the economic

development of this 'département'. (Steinberg, 1991, p. 283-291)

These findings and observations reveal that immigrants are significantly contributing to the dimension of the working-age population to the point that their rate of participation in the workforce is above the national average. Nevertheless, some age- and sex-specific trends can be observed; on the one hand, young people aged 25 to 34 record lower employment rates, while immigrants workers above 60 retire later as compared to the natives. This trend partially relieves the pressure exerted on public budgets; in fact, even if there are thousands of young workers paying their contributions, it must be remembered that foreigners started arriving to France during the 1950s, which means that today taxpayers must pay for the pensions of large groups of retired non-native elderly permanently living in Île-de-France.

On the other hand, despite a process of progressive 'feminization' recorded by recent statistics, the number of foreign women entering the job market is below the national average, a trend which is influenced by the number of children born to immigrant mothers. For example, while Portuguese and Asian women show the lowest TFR and are extremely active in the workforce, female workers coming from Maghreb and Turkey have many offspring and record lower participation rates. This trends confirms Becker's 'New Home Economics', arguing that fertility is 'the result of household decisions

about the collocation of scarce resources (time and money) for the acquisition of commodities (children)' (Milewski, 2010, p. 23). In France a massive intervention of the state in the public sphere has aimed at combining household work and professional career through a generous and diversified family benefit system and an encouragement of the early socialization of children. However, Toulemon et al. (2008, p. 542) underline that 'this mix of tools is very likely related to the current high fertility in France but it is very difficult to quantify the overall effect'.

As far as economic sectors are concerned, in Île-de-France foreign men are mainly employed in the building industry while most women work in the private service sector. More precisely, the “Atlas des populations immigrées en Île-de-France” explains that the male workforce mainly includes drivers, cleaning workers, qualified or non-qualified workers, waiters, sellers, cooks, computer engineers or security agents; as for non-native women, most of them work as cleaning or domestic workers, child-minders, concierges, sellers, secretaries, teachers, waitresses, cashiers, clerks and care assistants. The countries of origin and existing economic networks significantly influence the distribution of immigrants in the job market. For example, while Portuguese men mainly work in the building industry and Moroccans are mainly employed in factories, Turkish immigrants preferably work in the production of consumption goods whereas the

activities linked to education and healthcare show a high representation of European, Sub-Saharan African and American citizens. (Insee, 2004, p.38-39)

Nevertheless, the contribution of foreign workers to the working-age population is influenced by job precariousness (with immigrants mainly engaged in temporary or part-time tasks with fixed-term contracts, traineeships, government subsidized programs or apprenticeships). High unemployment rates mainly affect non-naturalized individuals and people with higher educational attainment, a problem which is linked to the difficulties behind the foreign credentials' recognition process. Despite this, immigrants living in Île-de-France have started showing the same educational attainment as the autochthonous population. In fact, the demand for qualified workers and an increase in the level of female education have resulted in a high number of young people entering the job market after having obtained a high school diploma or even a bachelor degree, thus outnumbering large cohorts of elderly immigrants who have at most a primary school certificate. (Insee, 2003, p. 32-34)

These trends are also linked both to the countries of origin and to territorial dynamics. On the one hand, data gathered by the “Atlas des populations immigrées en Île-de-France” show that while African and Turkish nationals record the highest unemployment rate, EU citizens record the lowest. On the other hand, in those areas recording

high unemployment rates, there will also be large stocks of unemployed foreign workers and vice versa. For example, Seine-Saint-Denis hosts large communities of Africans and Turkish (the two nationalities with the highest unemployment rate on a regional level), whose presence inflates the value of the provincial unemployment rate.

3.4 Long history of immigration, indirect contribution to future demographic scenarios?

As we have seen in the previous paragraph, sometimes it is difficult to numerically estimate the contribution of foreigners to the size of a specific cohort or to the working-age population because NMRs play a significant role in determining these dynamics. On the contrary, official statistics provide clear unambiguous indications concerning births from foreign women in Île-de-France; in fact, as tables 37 and 38 show, a large share of children living in Paris, Seine-et-Marne, Val-d'Oise, Essonne, Yvelines, Seine-Saint-Denis, Val-de-Marne and Hauts-de-Seine have immigrant mothers. As compared to the analysis conducted in the previous chapter, Île-de-France and its provinces show much higher percentages, and this depends on the fact that if they host much more immigrants than Veneto, the dimension of future cohorts with foreign parents will be larger. This trend is also apparent

when taking into consideration the country of origin of the mother: in other words, the higher the concentration of immigrants coming from a specific area, the larger the dimension of the cohort born from mothers of that nationality. For example, while Seine-Saint-Denis and Val-de-Marne record the highest percentage of children with foreign mothers in absolute terms, in Hauts-de-Seine and Val-d'Oise most immigrant mothers come from Morocco and Algeria. Furthermore, it is interesting to observe that even if only in Yvelines there is a large Senegalese community (see table 32), in all provinces Senegal is one of the most represented nationalities of foreign mothers, a result mainly depending on their high TF²¹. In other words, even if the underrepresentation of individuals coming from that country limits their demographic impact on present scenarios, their contribution to future generations is much more significant because of high fertility rates.

Table 37 and 38. Births from foreign women in Île-de-France and its provinces in 2013 (most represented nationalities).

	Foreign mother	Algerian mother	Moroccan mother	Tunisian mother
Île-de-France	66 009 36%	10 430	8 046	3 467
Paris	10 781 37.2%	1 258	735	556

21 Sub-Saharan immigrants living in France recorded a TFR of 2.86 children/woman in 1994. (Toulemon, 2004, p. 3)

Seine-et-Marne	5 086 26.3%	719	524	226
Yvelines	5 528 27.7%	778	1 077	204
Essonne	6 160 33.27%	823	711	324
Hauts-de-Seine	8 174 30.7%	1 352	1 343	461
Seine-Saint-Denis	14 836 51.7%	2 787	1 819	825
Val-de-Marne	8 201 39.5%	1 514	750	571
Val-d'Oise	7 243 37.0%	1 199	1 087	300

	Turkish mother	Portuguese mother	Senegalese mother
Île-de-France	2 352	1 877	2 433
Paris	95	183	480
Seine-et-Marne	332	229	166
Yvelines	179	278	291
Essonne	349	272	284
Hauts-de-Seine	62	182	297
Seine-Saint-Denis	543	256	457
Val-de-Marne	194	276	228
Val-d'Oise	598	201	230

Source: Elaboration on Insee data

Insee. Données détaillées des statistiques de l'état civil sur les naissances.

However, as it has already been said in the previous chapter, the impact foreign women have on TFRs and, as a consequence, on the dimension of future cohorts depends on the quantity of women of childbearing age; in other words, the more the women of childbearing age, the stronger their contribution to TFRs. As table 39 shows, in Île-de-France 22 per cent of women of childbearing age are immigrant, which means that their contribution to the current TFR of the region (2.02 children/woman) is significant. A focus on the most represented nationalities also shows that Algerian, Moroccan and Portuguese women are those who most influence TFRs at provincial and regional levels. Interestingly enough, even if these nationalities are the most represented in all the 'départements' of Île-de-France, only Seine-et-Marne, Yvelines, Essonne, Val-de-Marne and Val-d'Oise (i.e. the provinces with the lowest concentration of immigrants) record a TFR above the regional average. On the contrary, while Hauts-de-Seine, Paris and Seine-Saint-Denis host the largest share of immigrants, their TFRs are below the regional average, which suggest that there are some underlying dynamics precluding foreign born women from having a high number of children in those areas. Consequently, it is necessary to address the broader question of immigrant fertility, an issue studied by a significant body of literature which can help detect the hidden mechanisms behind the TFRs of the various provinces of this region.

Table 39: Percentage of women of childbearing age in Île-de-France in 2012.

Country of origin	Women of childbearing age (15-54 years old)	Share of the total population of women of childbearing age
Portugal	68 134	2.0%
Italy	10 972	0.3%
Algeria	94 109	2.7%
Morocco	81 998	2.4%
Tunisia	29 196	0.8%
Turkey	25 163	0.7%
Mali	18 982	0,5%
Ivory Coast	24 704	0.7%
Senegal	18 589	0.5%
Democratic Republic of Congo	20 590	0.6%
China	30 695	0.9%
Total	777 100	22.9%

Source: Elaboration on Insee data

Insee. *Les immigrés par sexe, âge et pays de naissance.*

Table 40: Regional and provincial total fertility rates in Île-de-France in 2013.

Territory	TFR
Île-de-France	2.02
Paris	1.59
Seine-et-Marne	2.09
Yvelines	2.11
Essonne	2.13

Hauts-de-Seine	1.59
Seine-Saint-Denis	1.99
Val-de-Marne	2.42
Val-d'Oise	2.24

Source: Elaboration on Insee data.

Insee. Régions, départements et villes de France. Dossiers complets.

As Toulemon (2004) and Tribalat (2005) argued, immigrant fertility is strictly linked to the age at arrival and to the length of stay in the host country. To be more precise, the fertility calendar is often affected by a rupture in childbearing patterns, especially when women leave their homeland between 20 and 35 (i.e. the time interval recording the highest fertility); in other words, statistics record a high sub-fertility before migration and a strong over-fertility after the arrival in a new country. These ups and downs are strictly linked to marriage migration, family reunification and other precise social mechanisms. In fact, the interrelation of migration and union formation, the frequent separation of husband and wife, the willingness to accumulate human capital before having children and the risks linked to migration pave the way to a catching-up process inflating the fertility of immigrant women. Consequently, these downward and upward dynamics make it difficult to properly evaluate the TFR of foreign women before and after migration.

Furthermore, as far as the length of the stay in the host country is concerned, women who arrived at a very young age are much more likely to record TFRs closer to those of the natives. This is also true for the presence of foreign communities as a whole: the longer their presence on a territory, the likelier that their reproductive choices will resemble to those of the natives. (Tribalat, 2005). However, foreign women always show TFRs and childbearing patterns which are closer to those of the host country²² than to those of their homeland. This partially explains why, even if Paris, Seine-Saint-Denis and Hauts-de-Seine record the highest concentration of immigrants, the provincial TFR is not significantly affected by the foreign presence. The large proportion of foreign mothers and their high TFRs are necessary but not sufficient conditions when studying the indirect contribution of the foreign population to demographic scenarios, with the historic presence of foreign communities in a specific territory and their possible integration playing a significant role. As a consequence, we can assume that if foreigners living in Île-de-France stuck to the socialization hypothesis presented by Milewski (2010, p. 27) and were attached to the values and norms of their countries of origin, their contribution to TFRs and to the absolute number of births would be

22 Curiously enough, the family policies put in place by the French government during the last few decades have paved the way to significant increases in the TFR of autochthonous women (1.7 children/woman) (Toulemon, 2004). As a consequence, the difference between the reproductive choices of foreign and native women is less marked, as compared to the case studied in the previous chapter.

significant. On the contrary, it has recently been observed that immigrant reproductive behaviours and childbearing patterns are changing, with frequent postponements of marriages and childbearing, a high percentage of exogamous couples and more and more children born out of marriage: this integration is limiting the impact immigrants may have on future demographic scenarios.

3.5 Final remarks

The analysis conducted in this chapter has revealed that in a context with a long history of immigration, foreigners are able to significantly influence the age structure of the population as a whole, the dimension of the workforce but also TFRs, thanks to the high number of births from non-native women. This part of this study has relied on a greater availability of data, which allowed us to strengthen, question and make a thorough investigation of some specific assumptions and findings. On the one hand, it has been possible to detect the nationalities significantly contributing to age structures, population composition, dimensions of the workforce and future demographic scenarios. On the other hand, thanks to these manageable statistics, these facets of RM have been associated to specific social, cultural and economic issues, such as the educational attainment of foreigners, the impact of unemployment rates, the problems linked to public

budgets as well as the current changes in reproductive choices and childbearing patterns.

Conclusion

This dissertation aimed at empirically demonstrating that migration is one of the driving forces behind the demographic characteristics of any country. After the analysis conducted on Veneto and Île-de-France, this proposition has resolved into a precise claim: a rapid change in the current and future age structure, population composition and fertility trends is already apparent in many contexts and it is arising from the direct and indirect effects of large-scale inflows of people with distinctive ethnic and racial ancestry.

Setting a precise demographic target and calculating how many foreigners would be needed to achieve this goal is not among either the primary or final objectives of this work. Rather, this conclusion wants to focus on some methodological and empirical findings, observations and suggestions that might be useful to future studies on RM.

A first preliminary remark concerns the indicators introduced so far by scholars to assess the extent of RM. This analysis showed that, despite the recognized effectiveness of these tools, most of them can only be used for national scale studies, since data availability often precludes the possibility of regional and provincial comparisons. The richness of statistical datasets and the exploitability of the various methods of measurement are major discriminant criteria that must be taken into consideration before starting an empirical contextualized analysis on RM.

Furthermore, this study suggests that a comparative analysis can be an effective approach when studying the various facets of RM. In this case, comparing the recent arrivals of immigrants to Veneto to the large percentage of foreigners living in Île-de-France allowed to understand that the length of the history of immigration is a major gulf with significant consequences both on the statistical inputs exploited by methodological tools and on the empirical findings presented by this dissertation.

As far as official datasets are concerned, their richness is directly proportional to the length of the history of immigration; in other words, the more a country is used to the arrivals of foreigners, the more exhaustive the available statistics. This explains why for France it was possible to rely on more detailed observations concerning the immigrants' countries of origin, whereas the study

conducted on Veneto merely distinguished between natives and non-natives. This affected the completeness of the analysis and allowed to present more or less detailed overviews of RM.

Despite such limitations, this study showed that in both cases immigration is beneficial from a demographic and an economic standpoint. On the one hand, a conjunction of massive arrivals of foreign-born people and the rate of natural increase of immigrant communities are the driving force behind the changes in age structure, population size and demographic composition of a community paving the way to the replacement of older generations. However, also in this case the length of the immigration history is a distinctive criterion. In Île-de-France the effects of less recent inflows have cumulated over time and are having long-term effects. Nevertheless, it is difficult to numerically estimate the extent of the phenomenon because of a partial overlapping with broader social and economic dynamics (e.g. internal migrations and negative NMRs). This trend has also been recorded in Veneto where the arrivals of foreign-born people are a recent phenomenon; however, despite a significant difference in absolute numbers, their direct or indirect contribution to current and future demographic scenarios is as much (if not more) important because they are playing the key role of 'demographic gap fillers' in a low-fertility context.

Furthermore, continued immigration is also beneficial in economic terms since it solves major problems related to labour shortage and caused by an ageing population. This trend is much more evident in those contexts like Veneto where low-skilled immigration is necessary to compensate for the conjunction of low fertility and increases in the highly educated population.

However, the close links between migration and broader social and economic dynamics reveal that RM is not the only remaining solution to current demographic problems caused by below replacement fertility and progressive ageing. Rather, it should be considered as a potential opportunity that should be compensated by further policies aiming at enhancing social, economic and, of course, demographic sustainability. Interesting counter-strategies with beneficial effects all round should promote gender equality by increasing the female participation in the workforce and make young people much more autonomous and responsible thus reducing the delays in their reproductive choices.

These trends are not written in stone but they support the thesis presented by Coleman in his 2006 work: a third demographic transition is underway in many European contexts and it is based on a substantial alteration of the composition of the population. Thus, even if it is not correct to speak of a need of migrants for demographic reasons, it may be argued that, were it to continue and materialize in

its demographic potential in the long term, this process would warrant the label of 'transition'. An ultimate acceptance of such a label would depend on whether this transformation proved to be permanent and general and thereby would bear comparison with the more familiar first and second demographic transitions.

References

Allievi, S. and Dalla Zuanna, G. 2016. *Tutto quello che non vi hanno mai detto sull'immigrazione*. Editori Laterza.

Bettin, G. and Cela, E. 2014. *L'evoluzione storica dei flussi migratori in Europa e in Italia*. Ministero dell'Istruzione, dell'Università e della Ricerca.

Billari, F. and Dalla Zuanna, G. 2012. *Is replacement migration actually taking place in low fertility countries?*. *Genus*, LXVII (N. 3). 2012. P. 105-123.

Castiglioni, M. and Dalla Zuanna, G. 2002. *Immigrazioni di stranieri*. Nord Est 2002 – Rapporto sulla Società e l'Economia. P. 41-51. Venezia: Fondazione Nord Est.

Castiglioni, M. and Dalla Zuanna, G. 2003. *Popolazione e*

immigrazione: come cambia il Nord Est. Nord Est 2003 – Rapporto sulla Società e l'Economia. P. 29-40. Venezia: Fondazione Nord Est.

Coleman, D. 2006. *Immigration and ethnic change in low-fertility countries: a third demographic transition*. Population and Development Review. Vol. 32, Issue 3. P. 401-446.

Dalla Zuanna, G. 2006. *Population replacement, social mobility and development in Italy in the twentieth century*. Journal of Modern Italian Studies, 11(I)/2006. P. 188-206.

Dalla Zuanna, G. 2008. *La misura RM del rimpiazzo delle generazioni*. Popolazione e Storia, Vol. 9 (N. 2). P. 61-72.

Direction régionale Institut national de la statistique et des études économiques, Direction régionale Fonds d'action et de soutien pour l'intégration et la lutte contre les discriminations. *Atlas des Populations Immigrées en Île-de-France*. Regards sur l'immigration.

Ediev, D., Coleman, D. and Scherbov, S. 2014. *New measures of population reproduction for an era of high migration*. Population, Space and Place, Vol. 10 (Issue 7). P. 622-645.

Eurostat. (2015). *Database*. [Online]. Available at:

< <http://ec.europa.eu/eurostat/data/database> >

Héran, F. and Pison, G. 2007. *Two children per woman in France in 2006: are immigrants to blame?*. Populations et Sociétés, 432. Paris: Institut National d'Études Démographiques.

Insee. *Données Locales*. [Online]. Available at:

<<http://www.insee.fr/fr/bases-de-donnees/default.asp?page=statistiques-locales.htm>>

Istat. *Demoistat*. [Online], Available at:

< <http://demo.istat.it/str2014/index.html> >

Istat. *Gistat*. [Online]. Available at:

< <http://gisportal.istat.it/bt.carto/bt.carto.html> >

Istat. *I.stat*. [Online]. Available at:

< <http://dati.istat.it/> >

Istat. *Immigrati.stat*. [Online]. Available at:

< <http://stra-dati.istat.it/> >

Legros, F. 2003. *La fécondité des étrangères en France: une*

stabilisation entre 1990 et 1999. Insee Première, 898. Paris: Institut National de la Statistique et des Études Économiques.

Lillo, N., Blanc-Chaléard, M.-C., Blum Le Coat, J.-Y., Vicente, M.-J., Gingel, A., Gonzalez Bernaldo, P., Martini, M., Quiminal, C., Volovitch-Tavares, M.-C. and Zaidman, S. 2009. *Île-de-France. Histoire et mémoire des immigrations depuis 1789*. Histoire des immigrations. Panorama régional, Vol. 2. P. 18-31.

Livi Bacci, M. 2016. *Demografia è destino*. Limes, 3/2016. P. 145-150.

Lutz, W. and Scherbov, S. 2007. *The contribution of migration to Europe's demographic future: projections for the EU-25 to 2050*. Interim Report IR-07-024. International Institute for Applied System Analysis, Laxenburg, Austria.

Milewski, N. 2012. *Fertility of immigrants. A two-generational approach in Germany*. Demographic Research Monographs. Springer.

National Geographic. (2015). *The world's congested human migration routes in 5 maps*. Available at:

< <http://news.nationalgeographic.com/2015/09/150919-data-points->

refugees-migrants-maps-human-migrations-syria-world/ >

Osservatorio Regionale Immigrazione. 2014. *Immigrazione Straniera in Veneto*. Regione del Veneto.

Philipov, D. and Schuster J. 2010. *Effect of migration on population size and age composition in Europe*. European Demographic Research Papers. Vienna: Vienna Institute of Demography of the Austrian Academy of Sciences.

Regione del Veneto. Sezione Sistema Statistico Regionale. *Banche dati*. [Online]. Available at:

< http://statistica.regione.veneto.it/banche_dati.jsp >

Scherbov, S., Mamolo, M. and Lutz, W. 2006. *Probabilistic population projections for the 27 EU member states based on Eurostat assumptions*. European Demographic Research Papers. Vienna: Vienna Institute of Demography of the Austrian Academy of Sciences.

Secrétaire Général à l'Immigration et l'Intégration. Département des Statistiques, des Études et de la Documentation. 2013. *Atlas National des Populations Immigrées*. Ministère de l'Intérieur, de l'Outre-Mer, des Collectivités Territoriales et de l'Immigration.

Sobotka, T. 2008. *The rising importance of migrants for childbearing in Europe*. Demographic Research. Special collection 7, Vol. 19 (Article 9). P. 225-248.

Steinberg, J. 1991. *Un département de la périphérie parisienne en voie de périurbanisation: la Seine-et-Marne*. Espace, Populations, Sociétés, 1991, Vol. 9 (N. 2). P. 283-291

Toulemon, L. 2004. *Fertility among immigrant women: new data, a new approach*. Populations et Sociétés, 400. Paris: Institut National d'Études Démographiques.

Toulemon, L. and Mazuy, M. 2004. *Comment prendre en compte l'âge à l'arrivée et la durée du séjour en France dans la mesure de la fécondité des immigrants?.* Documents de Travail, 120. Paris: Institut National d'Études Démographiques.

Toulemon, L., Pailhé, A. and Rossier C. 2008. *France: high and stable fertility*. Demographic Research. Special Collection 7, Vol. 19 (Article 16). P. 503-556.

Tribalat, M. 2005. *Fécondité des immigrées et apport démographique*

de l'immigration étrangère. La Population de la France – Évolutions Démographiques depuis 1946 (II). P. 727-767. Paris: Institut National d'Études Démographiques.

United Nations. 2000. *Replacement migration: is it a solution to declining and ageing populations?*. New York: Population Division.

Wilson, C., Sobotka, T., Williamson, L. and Boyle, P. 2010. *A simple method for estimating inter-generational replacement based on fertility and migration – European examples*. ESRC Center for Population Change Working Paper Number 9. Vienna: Vienna Institute of Demography of the Austrian Academy of Sciences.

Wilson, C., Sobotka, T., Williamson, L. and Boyle, P. 2013. *Migration and Intergenerational replacement in Europe*. Population and Development Review 39(1). P. 131-157.

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