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## RELIGIOUS DENOMINATIONS IN VIENNA & AUSTRIA: BASELINE STUDY FOR 2016 - SCENARIOS UNTIL 2046

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## **Abstract**

The publication presents the results of the research project “Religious Denominations in Vienna & Austria: Baseline study for 2016 – Scenarios until 2046” conducted by the Vienna Institute of Demography of the Austrian Academy of Sciences. The aim of this study project was twofold: Firstly, to estimate the religious composition of the population of Austria and Vienna in 2016 taking into account the most recent migration movements; and secondly, to project the population of Austria and Vienna from 2016 to 2046 based on several scenarios related mostly to the three major forces affecting religious composition, migration (including asylum-seekers), differential fertility, and religious conversion. While the projections demonstrate some of the possible futures that Austria and its capital city could experience in the coming decades, and those are all quite dissimilar, they also show that religious diversity is bound to increase, and there are no reasons to think that any of the trends that have been in place already for several decades in the country will stop and that the country would move back to the situation of the early 1970s.

## **Keywords**

Religion, religious affiliation, Austria, Vienna, projections, refugees, migration, fertility, secularisation.

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# Religious Denominations in Vienna & Austria: Baseline Study for 2016 - Scenarios until 2046

Anne Goujon, Sandra Jurasszovich, Michaela Potančoková

## 1. Summary

The publication at hand presents the results of the research project “Religious Denominations in Vienna & Austria: Baseline study for 2016 – Scenarios until 2046” conducted by the Vienna Institute of Demography of the Austrian Academy of Sciences and with financial support by the Austrian Integration Fund.

The research interest of the project is to analyse, by means of rigorous scientific methods, some exploratory scenarios concerning the religious distribution of the Austrian population and its capital Vienna for the next 30 years. The findings of this study provide meaningful insights that help detect changes early on and form the basis for policies aiming to foster the coexistence of all parts of the Austrian population. Using scenarios as an empirical-analytical method is not about making forecasts or predictions, but rather serves as a planning technique. This method involves sketching drafts of futures that are possible, but not necessarily definite. In this project, four scenarios were built that show how the religious distribution of Austria’s population could look like in the near to medium-term future as certain variables move into different directions.

The aim of this study project is twofold:

- Firstly, to estimate the religious composition of the population of Austria and Vienna in 2016 taking into account the most recent migration movements.
- Secondly, to project the population of Austria and Vienna from 2016 to 2046 based on several scenarios related mostly to the three major forces affecting religious composition, migration (including asylum-seekers), differential fertility, and religious conversion.

The methodological procedure and data constraints are explained in detail in the chapters *1.2 Why is it important?* and *1.3 Filling the gap*.

### 1.1. Change of Religious Landscape of Austria and Vienna

Austria used to be – and still is – predominantly Roman Catholic, though several religious minorities, in particular Protestant and Jewish communities, have existed there for a number of centuries. Until recently, most changes in the religious landscape of Austria were caused by the enforcement of doctrines by the religious authorities, e.g. the Counter-Reformation in the seventeenth century and/or by the political power in place, for

example, the pogroms and ensuing holocaust of Jewish communities under the Nazi-Regime.

Since 1970 the relative religious homogeneity of the Austrian population has been slowly changing into a more diversified religious landscape through two main forces: The first one – also historically – is that of **secularisation**. As an effect of modernization and rationalization, religion gradually lost the overarching importance in people’s lives, and religion, while still part of the cultural identity of most, has become more of an individual characteristic. The second main trend is the increased religious diversity shaped by migration. **Migration** to Austria has increased for several reasons: firstly, because of economic factors demanding the increase/supplementation of the labour force, for instance with the *Gastarbeiter* program, and crises in neighbouring countries such as the Yugoslavian war and the break of the Berlin Wall. More recently, the war that erupted in 2011 in Syria caused the displacement of populations who flew to neighbouring countries and to Europe. Other conflicts in Afghanistan, Iraq, Eritrea, and dire poverty in further countries lead more people to look for living options elsewhere. In 2015, Austria registered more than 88,000 asylum applications – 10.3 per 1,000 residents (Migration Policy Institute Data Hub based on Eurostat).

In the past 30 years, the people in the several migration movements to Austria brought with them religious traditions that had been scarce in the population, particularly Islam and Orthodox Christianity. As a result, **religious diversity** has increased.

Both trends of secularisation and religious diversification that we are observing nowadays are unprecedented in the recent history of Austria as well as of most European countries and are shaping the religious landscape of Austria today. They are quantifiable, as data are available to estimate the number of individuals in several large religious categories. Data also permit to assess the demographic behaviours – in terms of fertility, mortality and migration – of the different religious groups, allowing us to project the religious composition according to scenarios/narratives about what possible future development/trends might be. The work presented in this report aims at quantifying the share of the main religious affiliations in Austria in 2016 and, based on several scenarios, seeks to derive potential middle-term futures for Austria and its capital Vienna.

## 1.2. Why is it Important?

The relevance of scientific knowledge on a population's religious composition is essential to understand the challenges faced by societies today. Quantifying Austria’s and Vienna’s religious landscapes is not about setting a benchmark about a certain level of religious diversity deemed acceptable or threatening, but rather about testing what level of religious diversity can be expected when different stories are followed. The research presented here has preparatory benefits as projections are important to reduce the uncertainties about future developments of religious diversity and, if necessary, to take decisions more rationally (see e.g. Fassmann 2002). The work presented in this report,

while sometimes using approximations due to incomplete or unavailable data, follows a scientifically rigorous approach.

### 1.3. Filling the Gap

Since 2001, the year of the last census that collected information on religious affiliation of the population, there have been no further data available on the religious distribution of Austria's population. In 2011, Austria moved to a complete register-based census, not releasing data on religious affiliation. Data on religious affiliation is collected in the ZMR (Zentrales Melderegister). However filling one's religion in the *Meldezettel* is not compulsory. We therefore need to estimate the most recent state of religious composition of Austria and Vienna. For this purpose, we reconstruct the 2016 population, applying population projection techniques and using the information collected in the 2001 census as our basis, and taking into account components of population change, namely migration, fertility, mortality, and religious mobility between 2001 and 2015. As mentioned, data on religion are not always available; thus the 2016 religious composition relies on estimates using scientifically sound techniques. For instance, religious identity of migrants is not documented and we have to assume that their religious composition is the same as that of the people residing in their country of birth or citizenship. This approach is known as the *random migrant assumption* and is commonly used in migration studies.

In recent years, the changing patterns of migration flows also had an impact on the religious composition of immigrants to Austria: In the 2000s, the main countries of origin were Germany and Eastern European countries, i.e. countries with predominantly Christian populations. Although there have been Muslim immigrants before – especially from Turkey – a significant change in the patterns of migration flows took place in the period from 2011 to 2015 with more migrants from the Syrian Arab Republic and Afghanistan, both countries with overwhelmingly Muslim populations, coming to Austria and joining the top-ten list of countries of origin for the first time. Data and methods will be described in more detail in the chapter 3. *Part I: Reconstruction of the religious composition in 2016.*

In this research project we focused on six religious affiliations: Roman Catholics, Protestants, Muslims, Orthodox, other religions, and unaffiliated, i.e. persons with no stated religion<sup>1</sup>. This report does not address the issue of religious intensity, but purely focuses on the quantification of the group size and demographic behaviour of the different religious affiliations. While religious intensity is surely an important dimension, it is difficult to project as it is rather volatile and context-based.

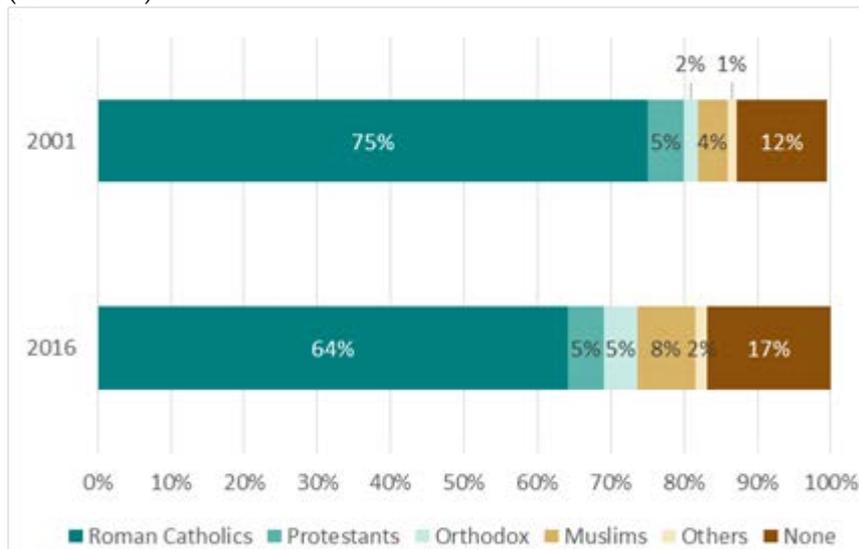
**The reconstructed population of 2016 by religion** shows that the religious composition of the Austrian population has changed noticeably since the last

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<sup>1</sup> While we were able to distinguish between several Christian affiliations (Catholic, Protestant and Orthodox), data do not allow splitting the Muslim group into denominations such as Sunni and Shia Islam for instance.

measurement in 2001 (see Figure A). The secularisation trend continued and the share of the Roman Catholics has declined further from 3/4 of the population in 2001 to 2/3 in 2016. The largest gains were among the population without religion, which accounts for 17% of the population in 2016 compared to 12% in 2001. The Orthodox and Muslim communities have also grown substantially. The share of Orthodox has more than doubled from 2% to 5%, and the Muslims have increased their share from 4% to 8% between 2001 and 2016. The relative share of Protestants and other religions did not change.

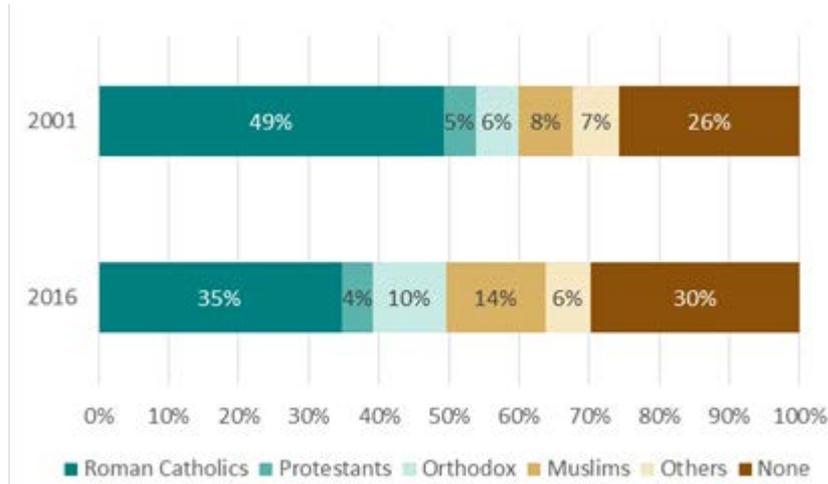
Figure A: Religious distribution of Austria's population in 2001 (census) and 2016 (estimated)



Source: Statistik Austria and authors' calculations

Vienna, as most European capitals, is at the forefront of both secularisation and the growing visibility of minorities/new religions in the public space. Hence, already in 2001, larger proportions of its population had a non-Christian affiliation (15% compared to 5% in Austria), and more residents reported having no religious affiliation (26% compared to 12% in Austria). As shown in Figure B, the change in the following 15 years is similarly impressive in the city of Vienna as it is in Austria: the share of Roman Catholics has further dropped to 35% in 2016 (from 49% in 2001). Simultaneously, the share of the unaffiliated reached 30% in 2016, having increased by mere 4 percentage points since 2001 (26%). Migration became the main driver for transforming the religious landscape of Vienna in this period. The share of Muslims increased most rapidly with 14% in 2016 (from 8% in 2001), followed by the Orthodox, whose proportion rose from 6% in 2001 to 10% in 2016.

Figure B: Religious distribution of Vienna's population in 2001 (census) and 2016 (reconstruction)



Source: Statistik Austria and authors' calculations

#### 1.4. What if...Scenarios for the Future

In a second step of this project, four scenarios of possible developments were outlined to project the population of Austria and Vienna from 2016 to 2046. Scenario methods are often used to sketch out alternative developments and to enable anticipatory planning. It is important to emphasise that scenarios are not to be viewed as forecasts, but rather as a means to answer various hypothetical questions. By identifying the main drivers of change and critical uncertainties, different paths can be derived which would occur as the key factors move into different directions. This form of analysis does not project a linear future, but rather multiple futures, in order to broaden the perspective on possible trends and to adapt and respond to changes early on.

Starting point of a scenario analysis is the formulation of narratives of possible futures that are then translated into scenario assumptions. In this study project analysing the religious composition of the Austrian and Viennese population from 2016 to 2046, we made the following assumptions:

- volume and composition of migrants,
- differences in the fertility (foreseen changes in family size) of women depending on their religious affiliation and
- secularisation patterns.

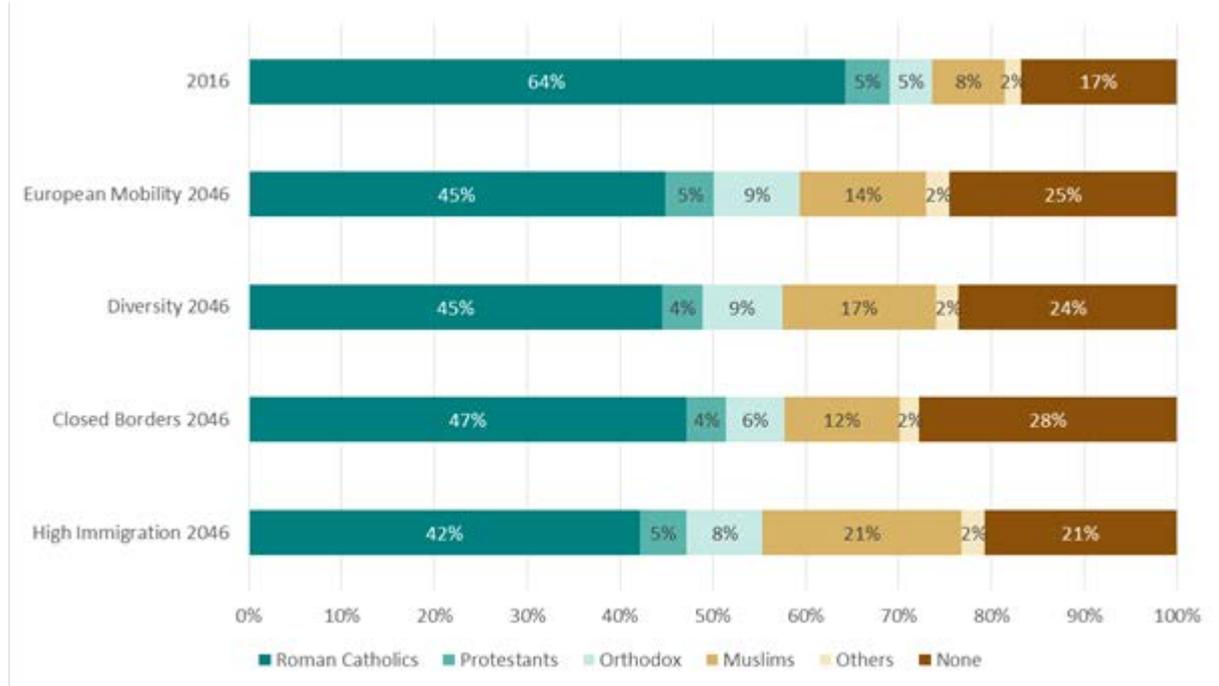
All these dimensions were quantified in order to project possible future size and religious composition of Austria's and Vienna's population. International migration is the principal driver of religious diversity in all scenarios. The four migration scenarios vary on a scale from closed borders and restrictive policies to open borders and high immigration, including two scenarios that build upon the most recent migration trends.

Estimating future migration often appears to be challenging as the flows are sensitive to a range of factors such as government policies, economic conditions and international crises. The overall migration figures (number of immigrants and emigrants per year) of the scenarios are aligned to the scenarios of *Statistik Austria's* population projections (Statistik Austria 2016). We derived the religious composition of the migrants based on the population's religious distribution in their respective country of birth. At the same time migration usually happens along pre-established links and networks between sending and receiving countries that are often quite stable. Other assumptions in the scenarios concerning fertility and secularisation follow from the migration narrative. In the example of the high migration scenario, we assume high fertility – most additional migrants would come from the Middle East and North Africa region and from Sub-Saharan Africa, where numbers of children are higher than in Austria. Moreover, recent immigrants usually have high fertility in the first years after migration because they were postponing their plans during the migration process. High immigration assumptions also translate into expectations of low secularisation rates supposing that intense religious diversification would steer individuals to be more attached to their religious characteristics as part of their identity. For a more detailed explanation of how scenarios were formulated, what methods were employed, as well as on the data used, we refer the reader to the chapter 4. *Part II: The religious composition in 2046 across different scenarios* of this report.

## 1.5. Results

The projections demonstrate some of the possible futures that Austria and its capital city may experience in the coming decades and they also show that religious homogeneity will further diminish. In our projections for Austria we find that the share of Roman Catholics would fall below 50% by 2046. However, in all scenarios presented in this project the Roman Catholic community would still be the largest religious group in Austria, accounting for 42 to 47% depending on the scenario. The share of the Protestants would remain relatively stable over the period with around 4-5%. The projections also show an increase in the share of the Orthodox community to around 6-9%. The group of the religiously unaffiliated would increase its weight in the Austrian population, within a range from 21 to 28% by 2046, depending on the scenario. The Muslim population has already experienced a sharp increase, from around 1% in 1981 to 8% in 2016, and by 2046 would represent 12% to 21% of the population. Another interesting aspect is that the share of other religions is estimated to remain at the same level as in 2016 (about 2%) across all four scenarios. This is the result of the scenario assumptions envisaging mainly the diversification of religions in Austria to occur through the expansion of already established religious communities such as Orthodox and Muslims, coming from a set of presently sending countries.

Figure C: Religious distribution of Austria’s population in 2016 (reconstruction) and in 2046 across the different scenarios



Source: Statistik Austria and authors’ calculations

Somewhat different frame conditions can be observed in Vienna – as Austria’s single metropolis – where both forces of secularisation and migration are more strongly pronounced than in any of the other Austrian federal States. While from 1971 to 2001, the share of Roman Catholics decreased from 87% to 74% in Austria as a whole, it dropped from 78% to 49% in Vienna. During the same period, the share of those without religious affiliation rose from 4% to 12% in Austria and from 10% to 26% in Vienna. Whereas the share of people without religion was estimated to have further increased to around 30% in 2016, for the future, three out of the four scenario calculations show that this share would remain relatively stable with 28-31%. This can be explained by the saturation of secularisation trends, meaning that secularisation affects mostly those who are loosely religious whereas the more religious – and their children – are less likely to secularise. Nevertheless, in those three scenarios the secularised population would be the largest religious group by the middle of the 21<sup>st</sup> century in Vienna. Only in the scenario *High immigration* with low secularisation tendency the group of the unaffiliated would decrease more strongly to 24%. The decline in the share of the Roman Catholics, which was observed in the past, would continue in the future and drop to about 22-26%. On the contrary, communities of Muslims (20-30% in 2046) and of the Orthodox (12%-16% in 2046) are projected to increase further.

Figure D: Religious distribution of Vienna's population in 2016 (reconstruction) and in 2046 across the different scenarios



Source: Statistik Austria and authors' calculations

In the section below we summarise the narratives, assumptions and the main results for both Austria and Vienna for the four scenarios: European mobility, Diversity, Low immigration and High immigration.

### 1.5.1. European Mobility Scenario

This scenario refers to a situation where migration flows would be mostly composed of migrants from Europe and the European Union as it was observed in Austria between 2006 and 2010. Together with the scenario *Diversity* it represents a medium variant that corresponds to the trend scenario of Statistics Austria population projections regarding the volume of migration – with around 175 to 145 thousands of international immigrants arriving yearly over the period 2016-2045 (compared to 214 thousands in 2015). This middle-of-the-road scenario for migration is combined with medium secularisation and medium fertility assumptions. The latter means that fertility rates between the religious groups would converge over time. Medium secularisation means that secularisation rates would remain constant at the observed level in the base year over the first ten years and decline slowly in the last period of the projections. This scenario would result in a population of 9.7 million inhabitants in 2046 in Austria, and 2.2 million residing in Vienna.

For Austria, the religiously unaffiliated group would grow the most and would compose 25% of population in 2046, up from 17% in 2016. In parallel, the share of Roman Catholics would decline from 64% to 45% within the next three decades. The proportions of Orthodox would expand from 5% in 2016 to 9% in 2046, and that of the Muslims from 8% to 14%.

In contrast to the results for Austria, the share of the unaffiliated in Vienna is projected to slightly decline from 30% in 2016 to 29% in 2046 as a result of both negative net migration of the unaffiliated (due to internal migration patterns in which more unaffiliated leave the city than move in), and the saturation of secularisation potential. Nevertheless, the group of the unaffiliated would represent the largest group in the spectrum of religious denominations in Vienna by 2046. Similarly to Austria as a whole, the Roman Catholics are projected to show the largest proportional decrease from 35% in 2016 to 24% in 2046. For Vienna, the largest proportional increase is projected for Muslims (from 14% in 2016 to 21% in 2046), followed by the Orthodox (from 10% in 2016 to 16% in 2046).

#### 1.5.2. *Diversity* Scenario

In contrast to the previous *European mobility* scenario, the *Diversity* scenario takes into account the more recent trends of migration patterns (from 2011 onwards) that are characterised by a stronger non-European component as countries such as Afghanistan, Syria, Iran and Iraq are among the most prominent countries sending migrants to Austria. Just as scenario *European mobility*, this scenario also assumes medium migration, secularisation and fertility and leads to similar results in terms of population size.

For Austria, the Muslim community would experience the greatest gains as their share would rise from 8% in 2016 to 17% in 2046 (for comparison: 14% under the *European mobility* scenario), followed by the group of the religiously unaffiliated (from 17% in 2016 to 24% in 2046). Similarly to scenario *European mobility*, the share of Roman Catholics is projected to decline strongly from 64% in 2016 to 45% in 2046.

This scenario is particularly interesting in the sense that it shows the sensitivity of the projections to migration, especially the effect of the reference period on which the projected migration trends are based. This can also be observed for Vienna. When we take into consideration the trend that was observed in the last five years – with a large share of migrants arriving from countries outside of the EU – we see that the shares of the Roman Catholics and the unaffiliated are not much affected when comparing it with the results of scenario *European mobility*. The share of the Viennese population with a Muslim affiliation however changes considerably: 23% in 2046 compared to 21% in scenario *European Mobility*, and to 14% in 2016.

### 1.5.3. *Low Immigration Scenario*

The *Low immigration* scenario is based on the idea that international migration comes to a halt by 2021 with Austria sealing its border to EU and non-EU citizens. Such an extreme scenario means that future changes in the religious landscape would be foremost attributable to religious mobility and fertility assumptions. This scenario assumes a high secularisation rate following the present trend as religion becomes more and more an individual characteristic with little visibility in the public sphere. It also assumes that compared to the other scenarios the fertility of migrants would converge rapidly to the lower levels of Austrian women.

In comparison with the religious distribution of Austria's population in 2016, the unaffiliated would experience the highest proportional increase (from 17% in 2016 to 28% in 2046), while the strongest decrease is projected for the Roman Catholics (from 64% to 47%). In comparison with the other scenarios, this scenario features on one hand the lowest decline in the share of Roman Catholics and on the other hand the lowest increase of population with a Muslim or Orthodox affiliation. Overall, population growth would be meagre as the population would peak in 2026 with 8.9 million and would start declining thereafter to 8.5 million in 2046.

The *Low immigration* scenario would lead to less migration to Vienna as well, and consequently the religious composition of the Viennese population would be the closest to the one in 2016 compared to other scenarios. The secularisation trend would still affect the Roman Catholic group, which would further decline from 35% in 2016 to 26% in 2046. The group of the unaffiliated would slightly increase from 30% to 31%. This scenario shows the smallest increase of the Muslim community with 20% in 2046 compared to 14% in 2016 as well as the smallest increase of the Orthodox community with 12% of the Viennese population in 2046 compared to 10% in 2016). As for the Austrian population, the capital city's population would peak in 2026 with 1.9 million and slowly decline to 1.8 million by 2046.

### 1.5.4. *High Immigration Scenario*

The *High immigration* scenario imagines a future of sustained open door policy toward immigrants. In this case Austria would welcome large numbers of migrants, especially from Middle East and North African (MENA) and sub-Saharan African (SSA) countries. In this scenario the higher levels of religiosity would result in a decline of secularisation rates: We assume that religious identity would become increasingly important within the religiously diversified society. Due to increased immigration from high-fertility countries and the fact that new immigrants tend to bring their family ideals along (and these change at the earliest in next generations), the fertility of the most fertile religious groups, Muslims, would decline only slowly.

Under these assumptions, Austria would see a rapid increase of its population (to 10.5 million in 2046) and of its Muslim population in particular, as the share of Muslims

increases strongly from 8% in 2016 to 21% in 2046 – the highest increase across the four scenarios. The reasons lie in the positive net-migration and the relatively high fertility – above 2 children per Muslim woman while other religious groups would have a much lower fertility around 1.5 children. In contrast, this scenario shows the strongest decrease of the share of Roman Catholics, which would decline from 64% in 2016 to 42% in 2046.

Vienna, the city attracting the most international migrants coming to Austria, would – similarly to Austria as a whole – see the strongest increase in the share of Muslim population across the four scenarios: The share of Muslims is projected to increase from 14% in 2016 to 30% and would Muslims would thus be the largest religious group by the middle of the century in Vienna in this scenario. Notable is also the rather strong decline in the share of the population without religion (from 30% in 2016 to 24% in 2046) due to assumed low secularisation rates. Vienna's population would count as many as 2.4 million inhabitants in 2046.

## **1.6. Conclusion**

All scenarios envisaged lead to increased religious diversity. One direct implication seems to be that the co-existence of the different religious groups will require the attention of stakeholders, both at the national, but even more at the capital city level. In the public debate, religious diversity is often considered as a constraint for the peaceful coexistence of, and dialogue among, different communities and social groups, particularly if secularism is seen as one of the core values and rules of conduct in European societies, with religion broadly perceived as private. This view is challenged by the presence of visible religious minorities that is often seen as a threat to Europe's secular values and immigrants' non-traditional religiosity as an obstacle to integration, although this does not necessarily have to be the case.

It is important to note that the growth of minority religions is not solely driven by the factor of immigration but also by the relatively strong demographic momentum of particular migrant groups with youthful age structures and high fertility rates. It should be mentioned that differences in demographic behaviour are not solely about religion. Especially socio-economic characteristics such as educational attainment or female labor force participation explain most of the differences in fertility between religious groups. Furthermore, immigrant generation and country of origin play a big role. The fertility of Muslim women in Austria is high because many have low education and come from countries with higher fertility ideals. However, those Muslim women who are highly educated have similar fertility outcomes as highly educated Roman Catholic women in Austria.

The Austrian situation and that of its capital city is not unique in Europe and most Western European countries are going through similar experiences. The polarizing trends of increased religious pluralism and religiosity on the one side and ongoing secularisation on the other side are shaping the diverse religious landscape of Europe, as well as the global environment in terms of national policies and international settings.

## 2. Introduction

Since 1970 the overall religious homogeneity of the Austrian population has been slowly changing to a more diversified religious landscape through two main forces: increased secularisation and immigration of people belonging to other religions. Moreover, migrant women of the first generation overall had a higher number of children compared to native women, which has been reinforcing the increase in religious pluralism due to migration.

2001 is the last year for which data on the religious denomination of the population in Austria was collected as part of the population census. For later years we have to solely rely on projections. Early projections by Goujon et al. (2007) estimated that, according to a medium scenario, in 2016 the population of Austria would be composed of 64% of Roman Catholics (compared to 74% in 2001), 17% of people without religion (12% in 2001), 8% of Muslims (4% in 2001), and 7% with another religion (5% in 2001). This previous research endeavour projected a population of 650,000 Muslims in 2016 in Austria. This research project, however, did not yet take into account the latest trends we observed in recent years. In particular it did not take into account the arrival of substantial numbers of persons seeking asylum in Austria in 2015 and 2016, mostly originating from predominantly Muslim countries such as Syria, Iraq, and Afghanistan. The country received some 88,300 new asylum applications in 2015 (Federal Ministry of the Interior), a threefold increase over the previous year. In 2016, authorities have limited the number of asylum applications, which still remained at a high level with over 40,000 new asylum applications in total.

Overall, the relative sizes of secular and religious populations belong to the most important social characteristics of any society. In the wake of religious change, family behaviour, including marriage and childbearing, is likely to be altered. European demographic trends, characterised by low fertility and progressively later childbearing, are also likely to be affected when there is a growth of distinct religious groups with high fertility and with low rates of conversion and/or secularisation. The changing religious distribution of the population can also have wider social and political ramifications, affecting the level of social cohesion, societal trust and social/political dynamics.

### 2.1. Objective & Purpose

The aim of this study is two-fold:

- Firstly, to estimate the religious composition of the population of Austria and Vienna in 2016 taking into account the most recent migration movements. The estimate relies on the data on population by religion collected in the 2001 census – the last year for which data on the religious denomination of the population in Austria was collected – and information about the different components of change (fertility, mortality, migration, and religious switching) between 2001 and 2015. This is termed *reconstruction* throughout this report.

- Secondly, to project the population of Austria and Vienna from 2016 to 2046 based on several scenarios related mostly to the three major forces affecting religious composition, namely migration (including asylum-seekers), differential fertility, and religious conversion.

We consider six religious affiliations<sup>2</sup> in the population: Roman Catholics (CAT), Protestants (PRO), Muslims (MUS), Orthodox (ORT), other religions (OTH), and no religion<sup>3</sup> (NOR). This report does not address the issue of religiosity. It purely focuses on the quantification of the size and demographic behaviour of the different religious affiliations. While religious intensity might differ between religious groups, we do not consider this in this present work as the projections are based on census data which includes religious affiliation but not religious intensity.

## **2.2. Background on the Change of Religious Landscape of Austria and Vienna and Migration Patterns<sup>4</sup>**

Austria used to be – and still remains – predominantly Roman Catholic, though several religious minorities, in particular Protestant and Jewish communities, have existed there for a number of centuries. Until recently, most changes in the religious landscape of Austria were caused by the enforcement of doctrines by the religious authorities, e.g. the Counter-Reformation in the seventeenth century and/or by the political power in place, for example, the pogroms and ensuing holocaust of Jewish communities under the Nazi-Regime.

Since 1970, the relative homogeneity in terms of the domination of one religious group in the population (the Roman Catholic Church) has been slowly fading away because of two main forces: increased secularisation and immigration of people belonging to other religions (Goujon et al. 2007). Migrant women, especially from Turkey, Serbia and Montenegro, and Macedonia tend to have a higher number of children compared to native women, which has been reinforcing the increase in religious pluralism. These developments lead to the diversification of the religious landscape in Austria and have been exacerbated in the city of Vienna, where both forces of secularisation and migration

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<sup>2</sup> While we were able to distinguish between several Christian affiliations (Catholic, Protestant and Orthodox), data do not allow splitting the Muslim group into denominations such as Sunni and Shia Islam for instance.

<sup>3</sup> Throughout the paper, we either use the terms *unaffiliated*, *secular*, *no religion*, *none* or *without religion* to refer to the group of people who report having no religious affiliation, as measured in the 2001 census. This group is heterogeneous as it consists mostly of people who do not have a religion (atheists, agnostics), and people who moved out of the main Christian Churches by conviction or because they did not want to pay their dues. It is also important to note that for some religions, such as Islam and the Orthodox Church, there is a paucity of information on people leaving their affiliation. Moreover, formal apostasy from Islam is difficult and rarely practiced. Hence, interpretation about the number/share of the population belonging to this group should be taken with utmost caution.

<sup>4</sup> This section is largely based on Goujon and Bauer (2015).

are stronger than in any of the other Austrian Federal Provinces. Whereas the share of Roman Catholics decreased from 87% (1971) to 74% (2001) in the whole country, it changed from 78% (1971) to 49% (2001) in Vienna. During the same period, the share of those without any religious affiliation rose from 4 to 12% in Austria and from 10 to 26% in Vienna. The share of the Muslim community rose from being close to 0% in 1971 at the national as well as capital city level to 4% in Austria and 8 % in Vienna in 2001. Approximately half of the Muslims living in Vienna were born in Turkey, 30% were actually born in Austria and 18 % in former Yugoslavia.

Vienna is home to 20% of the Austrian population, but hosts a larger share of the population with a migratory background with 40%, whereby three quarters of those are migrants of the first generation.

There are several phases in the diversification of the religious landscape of Austria and Vienna. Until 1974, it occurred mostly through the arrival of guest workers mainly from Yugoslavia and Turkey. This was followed by a period of low to negative net-migration from 1975 to 1986. Net migration started increasing again after 1986, escalating with the fall of the Berlin Wall and the war in Yugoslavia. After a dip between 1994 and 1999, migration flows started increasing again between 2000 and 2005, with the majority of migrants coming from former Yugoslavian countries and Turkey. The accession of ten Eastern European countries to the EU in 2004 once again altered the composition of migrants to Austria in the following years. Between 2006 and 2009, net migration was lower as compared to the previous period, composed mostly of EU citizens with about 2/3 coming from Germany, Poland, Romania, Bulgaria, Slovakia, and Hungary. The last period is dominated by a revival in migration particularly since 2015.

Along with the falling numbers of religiously affiliated people, a dimension we are measuring in this report, religiosity has declined and altered its faces. Alongside decreasing church attendance, individual beliefs such as the belief in God or self-assessed religiosity have weakened as well. During the last decade they have decreased most notably among young people and in rural areas, where they used to be very present (Zulehner and Polak 2009). Religious socialization in the family, an important precondition for future faith, is less common at present than 20 years ago. Baptism, a religious wedding and especially a religious funeral, on the other hand, remain widespread. When European countries are ranked by their level of religiosity, Austria is located at the lower end of the more religious half of countries, close to, for example, Switzerland or Slovenia (Voas 2009 ). In contrast, large numbers of immigrants coming from more religious societies alter this trend, and further increase the existing gap between the *new* and *traditional* religions (Norris and Inglehart 2012).

### **3. Part I: Reconstruction of the Religious Composition in 2016**

The population of Austria and Vienna is reconstructed through projections starting from the last collected data on religious affiliation in the census of 2001. The projections follow the demographic methodology of multi-state population projections, a multi-dimensional

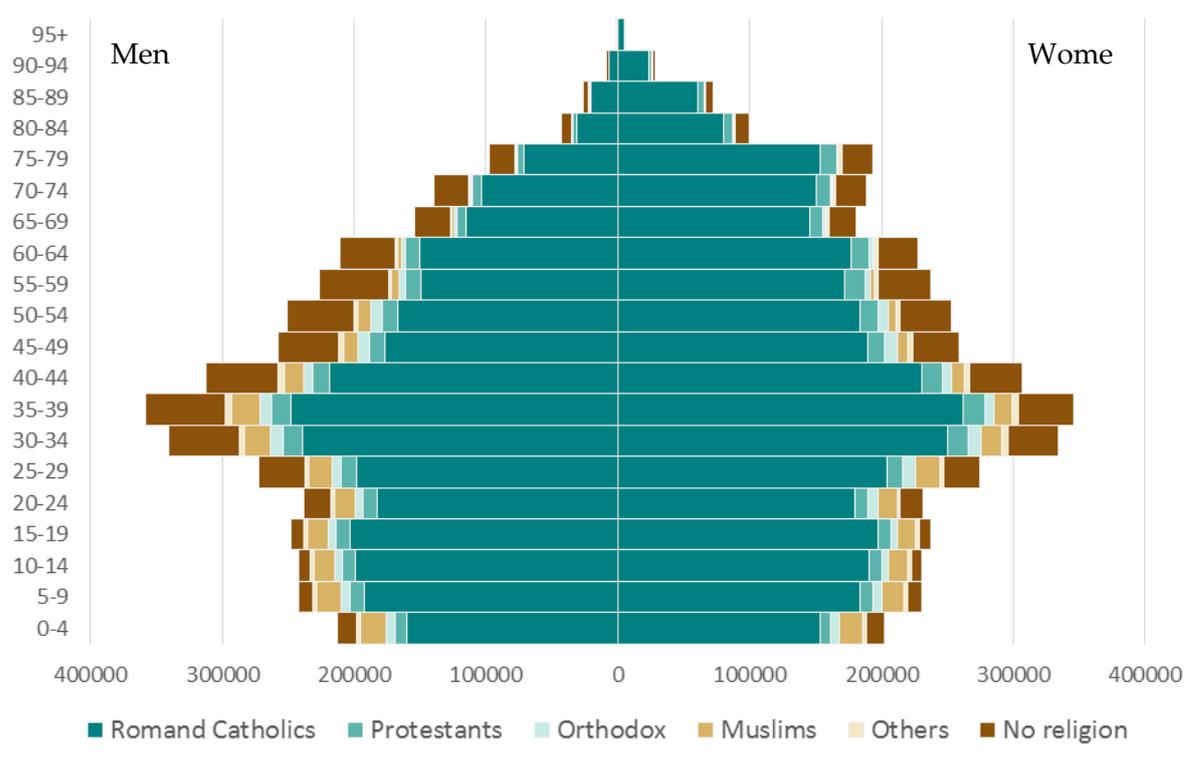
expansion of the cohort-component projection method. The projections from 2001 to 2016 require:

- (1) Population by age, sex, and religion in 2001;
- (2) fertility by age and religion from 2001 to 2015;
- (3) mortality by age and sex from 2001 to 2015;
- (4) migration (in- and out-flows) by age, sex, and religion from 2001 to 2015 and
- (5) religious switching (mostly in terms of secularisation) by age and sex from 2001 to 2015. The reconstruction is carried out in three steps of 5-year periods: 2001-2005, 2006-2010, 2011-2015.

### 3.1. Population in 2001

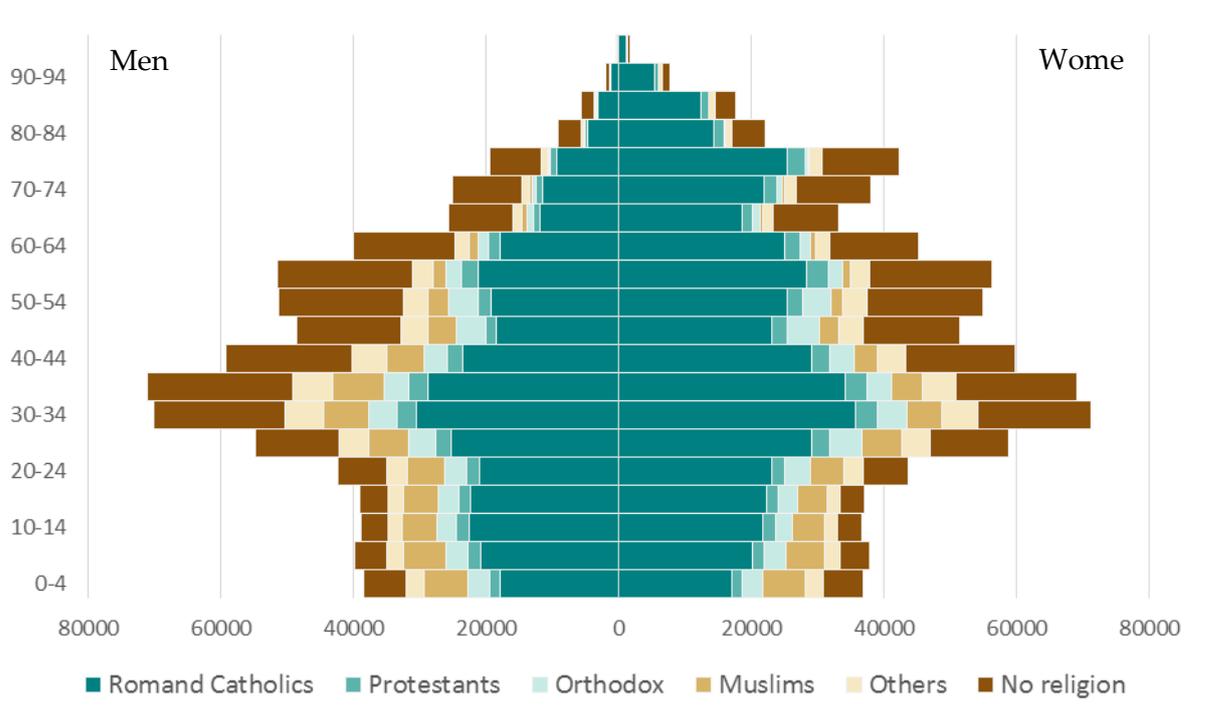
The populations in 2001<sup>5</sup> on January 1 by age, sex and 6 religious affiliations are represented in Figure 1 for Austria and in Figure 2 for Vienna.

Figure 1: Population pyramid of Austria by religion, 2001



<sup>5</sup> The census was collected as of May 15, 2001 and the population numbers were interpolated as to obtain the January 1, 2001 population by religion, age and sex.

Figure 2: Population pyramid of Vienna by religion, 2001



Source: Statistik Austria and authors' calculations

In Austria, out of the 8 million inhabitants, 6 million were Roman Catholics (75%) and close to 1 million were unaffiliated (12%), the rest of the population being distributed between Protestants (5%), Muslims (4%), Orthodox (2%) and Other religions (1%). The distribution by religious affiliation looks radically different in the population of Vienna, where barely half (49%) of the 1.6 million population belonged to the Roman Catholic Church and 26% to the unaffiliated group (400,000 people). While the share of Protestants does not differ from that in the Austrian population, the other religions tended to have a larger weight in the population residing in Vienna: 8% Muslims, 6% Orthodox and 7% with another religion.

The sections below detail the estimates in terms of migration, fertility, secularisation, and mortality that enter the reconstruction.

### 3.2. Migration – Data and Method

Migration statistics are elaborated by Statistik Austria and comprise data on international migration as well as migration within Austria<sup>6</sup>. Every person who enters or leaves Austria

<sup>6</sup> The terms *immigration* and *emigration* are used to refer to population movements between countries (international migration). The terms *in-migration* and *out-migration* are used to describe population movements between areas within Austria (internal migration).

or who changes his or her main residence within Austria is obligated to register and deregister their main place of residence within three working days after relocation. Following the UN definition of short-term migrants (91 days to 12 months), foreign nationals are counted as migrants when they have registered a main residence in Austria for at least 90 consecutive days (Kytir, Lebhart and Neustädter 2007, p. 284).

Since 2002, migration statistics have been based on administrative registrations and de-registrations derived from the Central Register of Residence (Zentrales Melderegister ZMR) and data are available for immigration and emigration by age, sex and country of birth<sup>7</sup>, as well as Federal States. Based on this, net migration, which is the difference of immigrants and emigrants, can be computed for Austria as well as between Vienna and the rest of the country.

Before 2002, data on registrations were contained in local registers, which were transmitted individually to Statistik Austria. The transition from the old system to the new system invariably led to a break in the time series. The old migration statistics displayed a large under-recording of registrations in comparison with the number of registrations recorded in the Central Register of Residence. To explain the increase in the population, a new migration balance had to be calculated for 2001 (Kytir, Lebhart and Neustädter 2007, p. 286). Hence, Statistik Austria provides estimated totals for immigration and emigration for Austria for 2001. Drawing on these total numbers, the proportional distribution by sex, age and country of birth was estimated based on the year 2002. In the case of Vienna no estimates were available; therefore the year 2001 is entirely based on 2002.

### 3.2.1. Asylum and Migration Statistics

In 2015, Austria experienced a high influx of refugees and asylum seekers. According to Statistik Austria, persons who seek asylum in Austria are registered with a main residence in Austria and thus included in the migration statistics – given they have stayed in Austria for at least 90 consecutive days. In other words, first-time asylum applicants<sup>8</sup> who arrived in Austria until the end of September 2015 and did not leave the country within 90 consecutive days are counted in the migration statistic. However, those who arrived in the last four months of the year – the asylum migration movement of 2015 peaked in the autumn months – do not yet appear in the migration statistics as they

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<sup>7</sup> The attribute *country of birth* was chosen rather than *citizenship* as citizenship can be acquired in the years following the arrival into the country. First generation immigrants who were socialised in the context of their home countries tend to have distinct demographic behaviours and citizenship data would conceal their specificities.

<sup>8</sup> A first-time applicant is a person who lodged an application for asylum for the first time in Austria. The count of first-time asylum applicants excludes repeat applicants i.e. persons applying for asylum more than once in a given country, and therefore more accurately presents the number of newly arrived persons applying for asylum in Austria.

resided in Austria for less than 90 days. Due to this timeframe as well as delays in registering main residence in Austria, asylum and migration statistics show discrepancies, leading to an underestimation of newly arrived immigrants in the migration statistics. To arrive at a correct estimate of Austria's population and religious composition at the end of 2015, we need to take into account the asylum migration and thus look into more detail at data retrieved from migration and asylum statistics and at their consistency.<sup>9</sup>

In order to address the issue of underestimation of newly arrived asylum seekers in the migration statistics, the number of first-time asylum applicants of the last two months in 2015 was added to the total number of immigrants in the period 2011 to 2015, resulting in an increase of some 19,000 persons; this number equates around 2% of the total international immigration in this period. It should be kept in mind that this number is a proxy without taking into consideration – due to lack of data – approval rates, possible onward journey of refugees within the European Union or *regular* migration that took place within a period of less than 90 days in the last months of the year.

For this project, we used asylum statistics on first-time asylum applicants by sex and citizenship published by Eurostat. Asylum statistics only include information about citizenship, but not country of birth; we therefore have to assume a correspondence between the nationality of the asylum seekers and their country of birth. Among the first-time asylum seekers who arrived in November and December 2015, about 87% came from Afghanistan, Syria, Iraq and Iran. Males accounted for 65% of the total number of first-time applicants in the two last months of 2015.

#### *Vienna*

For Vienna, the only available data are on the counts of asylum seekers living in state residential accommodation (Fonds Soziales Wien 2016). Therefore, we assumed that refugees follow the same pattern as other international immigrants in 2015, when 36% of all new migrants coming to Austria from abroad moved to Vienna. The same share is applied to the first-time asylum applicants of the last two months of 2015 and added to the total number of immigrants in the period 2011-2015. This results in an increase in the number of immigrants of some 7,000 persons, corresponding to about 1% of the total migration flows towards Vienna in the period 2011-2015.

### 3.2.2. Random Migrant Assumption: Linking Migrants with Religious Affiliation

In the absence of data on religious denomination of migrants, the *random migrant* assumption was used to link migrants with religious affiliations. This means we are assuming that the religious composition of the migrants is the same as the religious composition of the people residing in their country of birth or citizenship (in case of

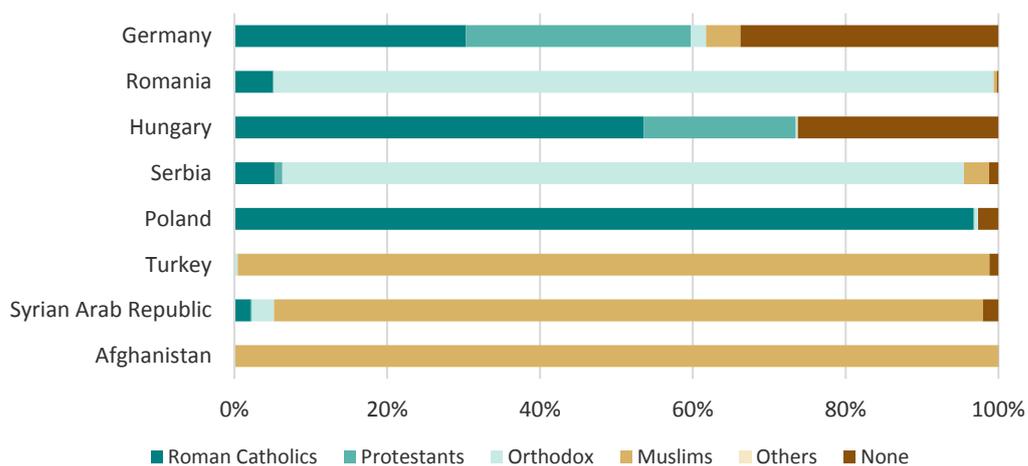
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<sup>9</sup> Other information regarding the number of refugees, i.e. the number of residents who have been granted asylum or subsidiary protection or the number of rejected asylum applications linked to an arrival date, are not available.

asylum seekers). For example, about 29% of the German population are Roman Catholics; hence, 29% of the migrants to Austria with Germany as country of origin are counted as Roman Catholics.

To apply the random migrant assumption we need to know the religious composition for each country of the world. The shares of population by religion in the respective countries are retrieved in two ways: For the most prominent countries sending migrants to Austria, we have collected up-to-date data from the national statistics (census 2011 rounds) whenever these were available<sup>10</sup>, and for other countries we have relied on the data published by the Pew Research Center (2011, 2012). Religious compositions of the immigrants to Austria vary a great deal as shown for some of the most prominent sending countries in Figure 3. For the few persons with unknown citizenship and stateless persons we have applied the religious distribution of the world population.

Figure 3: Religious composition of some of the most prominent countries of origin of migrants coming to Austria



Source: authors' calculations based on national statistics (2011), PEW Research Center (2011, 2012)

The random migrant assumption is likely to reflect reality unless migrants are selected in terms of their religion or other characteristics closely associated with religion (for example ethnicity). Some selection effects for the immigrants, for example in terms of their educational attainment (Grogger and Hanson 2011) and health status (Marmot, Adelstein and Bulusu 1984), are well-documented. In this respect asylum seekers can be seen as a specific group as political oppression, discrimination, human rights abuse, violent conflict, and state failure are all important determinants of asylum migration (Neumayer 2005). Most of these can be associated with specific subpopulations, including

<sup>10</sup> Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Germany, Hungary, Republic of Moldova, Montenegro, Poland, Portugal, Romania, Serbia, Slovakia, and Switzerland.

religious minorities. However, in the absence of more precise data, we need to use the ‘random migrant’ assumption.

### 3.2.3. Results

#### *Austria*

Table 1 gives an overview of the 10 most prominent countries of origin of migrants coming from abroad to Austria during the period 2001 to 2015, based on migration statistics provided by Statistik Austria. The total number of immigrants coming to Austria from abroad also includes a large group of Austrians returning back to the country after having lived abroad and in fact they are one of the largest groups ranking within the top three countries of origin in all three periods. Since this group is not the focus of migration policy measures, it is not displayed in Table 1.

Table 1: Immigration from abroad to Austria: Top 10 countries of origin in the respective periods

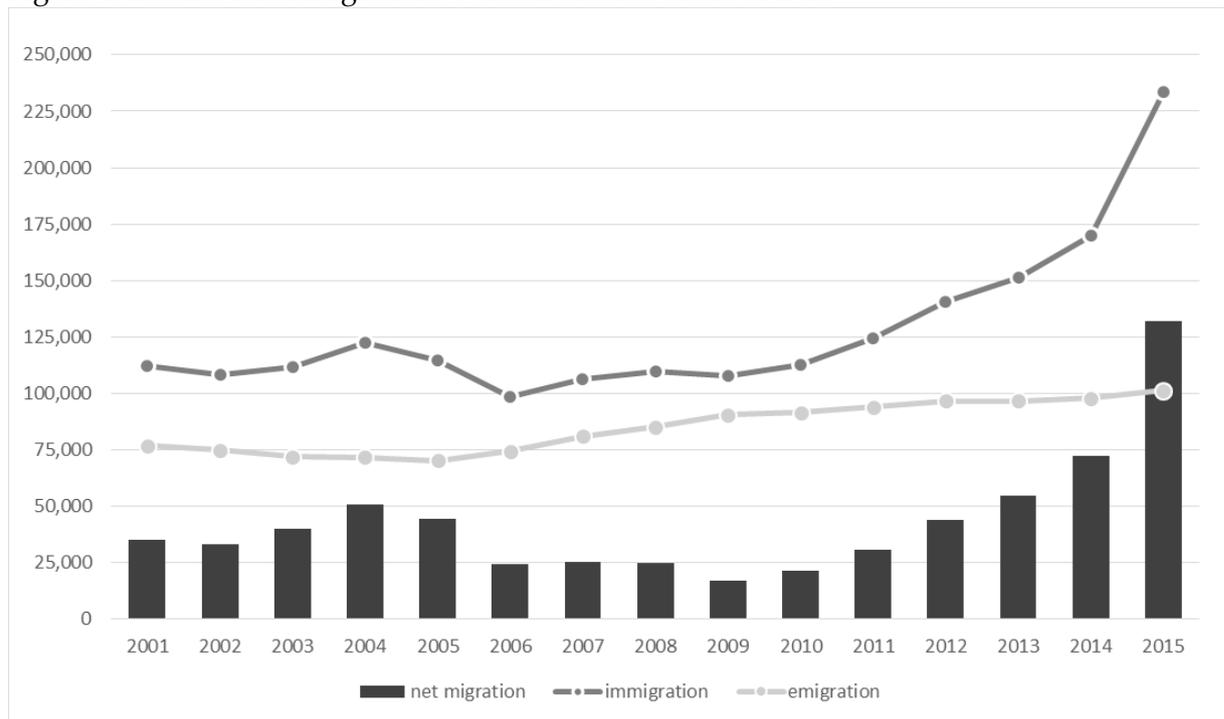
2001-2005	2006-2010	2011-2015
Germany	Germany	Germany
Serbia and Montenegro	Romania	Romania
Turkey	Hungary	Hungary
Bosnia and Herzegovina	Poland	Serbia
Romania	Turkey	Poland
Poland	Slovakia	Bosnia and Herzegovina
Russian Federation	Bosnia and Herzegovina	Syrian Arab Republic
Hungary	Serbia	Afghanistan
Slovakia	Serbia and Montenegro	Slovakia
Croatia	Russian Federation	Turkey

Source: Statistik Austria

Note: Serbia and Montenegro: Dissolution in 2006; however, pooled together in migration statistics until 2007, from 2008 onwards counted separately

Compared to previous years, when the main countries of origin were Germany and some Eastern European countries, significant changes took place in 2011-2015 with the arrival of many migrants from the Syrian Arab Republic and Afghanistan (see Table 1). Immigration from Turkey dwindled during the 15 years of observation and this country was just among the top 10 in the last period only. Figure 4 shows the development of immigration and emigration as well as the resultant net migration between 2001 and 2015.

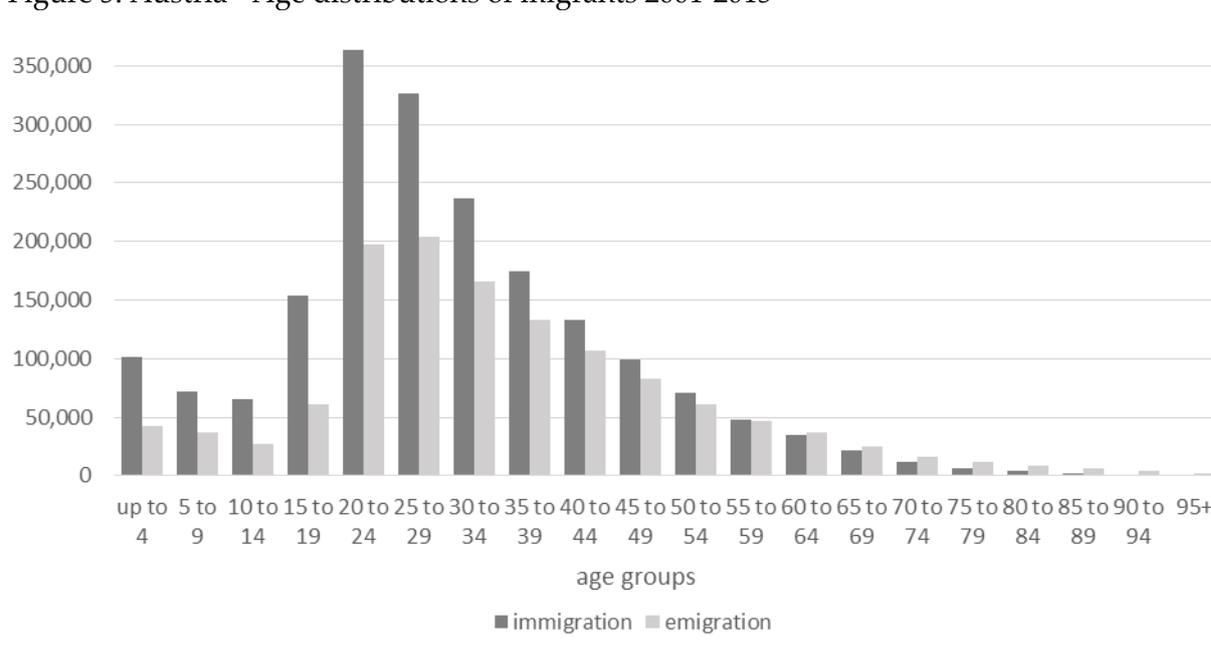
Figure 4: International migration to and from Austria 2001-2015



Source: Statistik Austria, Federal Ministry of the Interior, authors' calculations

Migration shows a strong association with age. Adults in their early twenties have the highest migration rates, and migration decreases beyond that age (Rogers 1979). The observed migration patterns to and from Austria are in line with the mainstream literature (see Figure 5). Looking at the whole period from 2001 to 2015, about 57% of the immigrants were between 20 and 40 years of age. A similar pattern can be observed looking at emigration: about 55% of the emigrants were between 20 and 40 years of age. While in 2001-2005, and especially in 2006-2010, the majority of net-migrants was female (2001-2005 about 51% and 2006-2010 about 60%), in the 2011-2015 period about 52% of the net-migrants were men.

Figure 5: Austria - Age distributions of migrants 2001-2015



Source: Statistik Austria

In the period 2001 to 2005, the international net migration gain amounted to 203,462 people. Immigration towards Austria summed up 568,999 people and was mainly driven by European immigration as approximately 73% came from European<sup>11</sup> countries and 51% from EU28 countries, with a majority originating from the old EU countries (EU15, 31% of the total). From outside Europe, Turkey, China, and Nigeria represented the largest immigrant origins. By contrast, 365,537 persons moved from Austria to foreign countries during the same period. About 32% of the emigrants were born in Austria and 49% in another European country. Given this context, the following religious composition was derived: about 33% of the net migration gain can be attributed to the Orthodox group, followed by Muslims with 31%. Roman Catholics made up 11% of the total number of net migrants; 10% of the net-migration is attributed to No religious affiliation, while Protestants and Others made up 7%.

In the years that followed, the international net-migration gain was 112,592 and almost halved compared to the previous period. This has two reasons: Firstly, immigration decreased to 534,932. This decline can largely be attributed to the effects of the reform of the Aliens' Law Package in 2006, which restricted immigration of third-country nationals. The low level, however, also reflected the generally tense economic climate after the global financial crisis in 2008 (Kraler 2011, p. 26). Following the EU enlargements in 2004

<sup>11</sup> For the purpose of this report, *Europe* refers to the 28 current Member States of the European Union, plus following third countries: Andorra, Gibraltar, Vatican City State, Iceland, Liechtenstein, Monaco, Norway, San Marino, Switzerland, Albania, Bosnia and Herzegovina, Belarus, Republic of Moldova, Montenegro, Russian Federation, Serbia, Ukraine, TFYR Macedonia, and Kosovo.

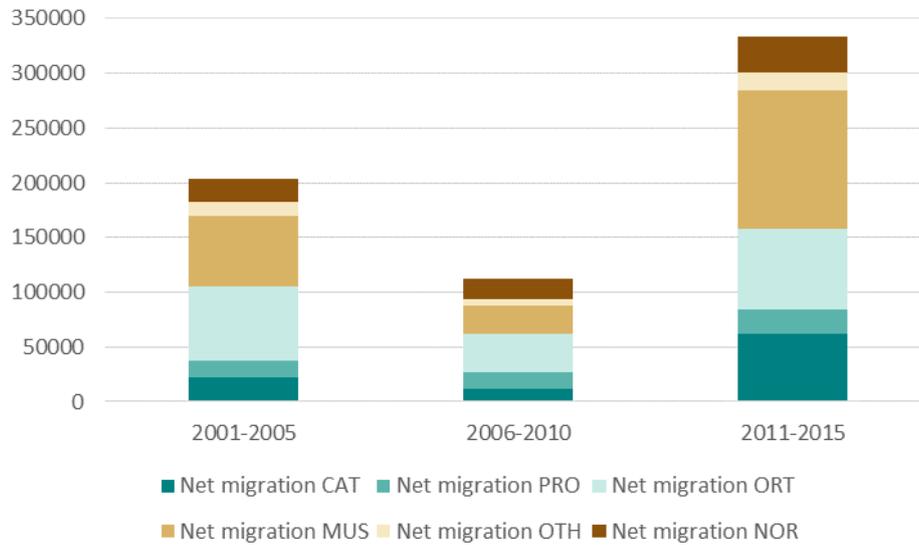
and 2007, the share of European immigrants increased to 78%, whereby the vast majority were born in EU28 member states (62% of the total). From outside Europe, people from Turkey, Iran, and the United States of America represented the largest immigrant populations. Secondly, emigration increased to 422,340 and was strongly characterised by a European component as about 79% were born in a European country. Regarding the religious composition of net migrants, the Orthodox group, with 31%, once again had the highest share of the net migration gain, and the share of Muslims declined to 23% in comparison to the previous years. The share of Protestants increased to 14%. Similarly, the group of No religion grew to 16% compared to the preceding period, whereas the share of Roman Catholics (10%) and Others (5%) fell slightly.

In the period 2011 to 2015, international net-migration gain (333,757 people) almost tripled compared with the number for the previous period – primarily due to the sharp increase in immigration. 800,782 immigrants from abroad were registered. Especially the year 2015 was characterised by high immigration and influx of refugees. Once the numbers for the asylum seekers who arrived between November and December 2015 were added to the volume of immigration stated in the migration statistics, immigration amounted to 819,918 persons. While an increasing number of migrants came from countries outside Europe such as Afghanistan, Syria, Turkey, Iran, and Iraq, the share of European immigrants decreased from around 78% in the previous period to approximately 71%. The trend of increasing emigration continued as 486,161 persons moved from Austria to a foreign country. Like in the past, emigration is dominated by a European composition (80%). Due to the new migration patterns, the share of Muslims in relation to the total net migration gain increased to 38%<sup>12</sup> compared with previous years, whereas the share of the Orthodox group declined to 22%. The share of Roman Catholics increased to 18%, while Protestants (7%), Others (5%) and No religion (10%) experienced a decline. Figure 6 gives an overview about the religious distribution of net migration in the three periods from 2001 to 2015.

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<sup>12</sup> Without adding first-time asylum applicants of November and December 2015, the share amounts to 35%.

Figure 6: Austria – Estimated religious distribution of net migration from 2001 to 2015 and respectively share in net migration



	2001-2005	2006-2010	2011-2015
Net migration CAT	11%	10%	18%
Net migration PRO	7%	14%	7%
Net migration ORT	33%	31%	22%
Net migration MUS	31 %	23%	38%
Net migration OTH	7%	5%	5%
Net migration NOR	10%	16%	10%

Source: Statistik Austria and authors' calculations

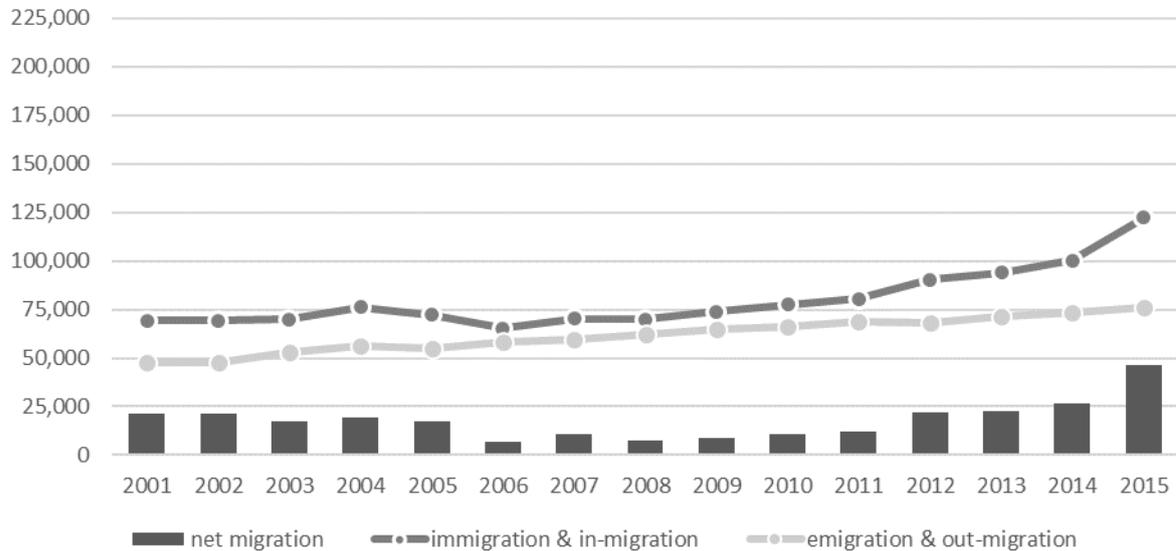
CAT = Roman Catholics, PRO = Protestants, ORT = Orthodox, MUS = Muslims, OTH = other religions, NOR = no religion

### Vienna

Due to the large number of international immigrants, Vienna's population has been growing in all years (Figure 7). Compared with other Federal States, Vienna is the major destination of international migration and it receives a larger share of immigrants than it has a share in the Austrian population. In 2015, approximately 36% of all new immigrants who came to Austria from abroad moved to Vienna. In addition to international migration, internal migration to and from Vienna has to be considered. While Vienna lost population through internal migration in the periods 2001-2005 (-4,871) and 2006-2010 (-2,065) as more people moved out of Vienna to other Federal States than moved in from

these, the situation changed in the period 2011-2015, when the internal net migration gain amounted to 7,246 people.

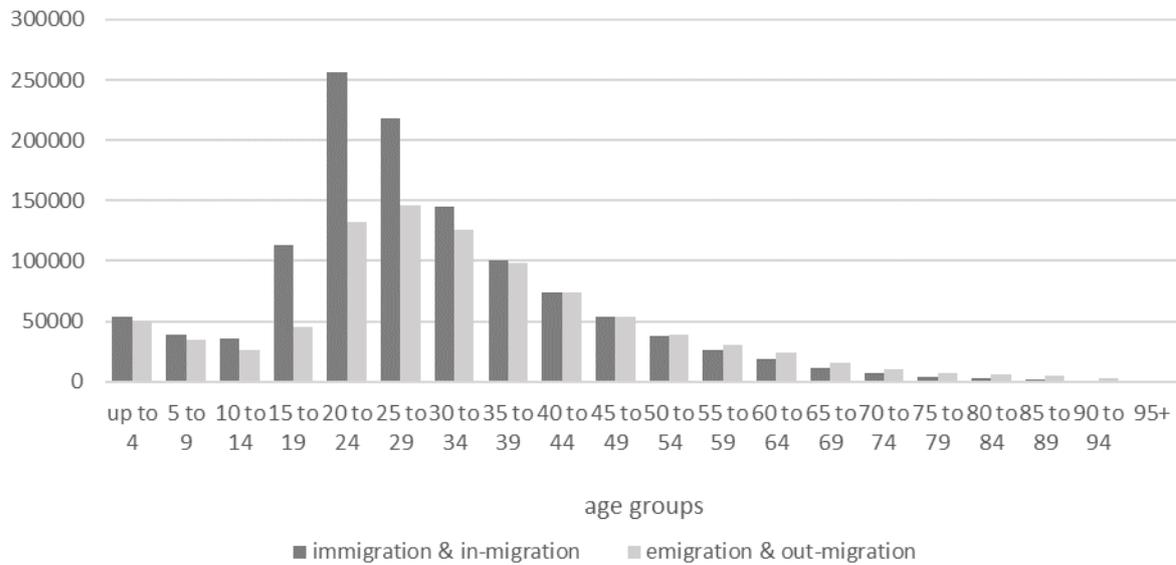
Figure 7: International and internal migration to and from Vienna 2001-2015



Source: Statistik Austria, Federal Ministry of the Interior

As in the case for the whole of Austria, the majority of immigrants coming to Vienna are between 20 and 40 years of age (see Figure 8). A similar pattern can be observed looking at emigration: about 62% of the emigrants were between 20 and 40 years of age. The share of male migrants increased slightly from 54% in the period 2001-2005 to 55% in the period 2011-2015.

Figure 8: Vienna - Age distributions of migrants 2001-2015



Source: Statistik Austria

As in the past, net migration in 2001 to 2005 for Vienna was positive due to international immigration and amounted to 96,909 people. The total number of (international and internal) immigrants amounted to 356,760. With 75% European immigrants the share was slightly higher compared with the whole of Austria (73%), whereby especially the share of immigrants from EU28 countries was higher for Vienna (57%) than for Austria (51%). Looking only at international immigration, the most prominent countries of origin were Serbia and Montenegro, Turkey, Poland, Germany, and Romania. Internal in-migration was dominated by people born in Austria (75%). In total, 259,851 persons moved away from Vienna, whereby the share was almost evenly divided between people moving to a foreign country and people moving to another region in Austria. The majority of people leaving Vienna were Austrians (54%), another 29% originally came from another European country. Regarding religious composition, about 34% of the net migration gain can be attributed to the Orthodox group, 33% to the Muslims, followed by Roman Catholics with 12%. The share of Others was 8%, of No religion 7%, and Protestants made up 5%.

In tandem with the decline in net migration for Austria as a whole in the years 2006 to 2010, the net migration gain decreased for Vienna to 44,881 people – reduced by nearly half compared to the previous period. While international immigration to Vienna decreased to 210,372, internal in-migration towards Vienna rose in comparison to the previous years to 146,520. This resulted in a similar total number of migrants moving to Vienna as in the previous period (356,892). Regarding international migration, the most prominent countries of origin were Germany, Romania, Poland, Turkey, and Serbia. In total, the share of European immigrants increased to 79%; the share of immigrants coming from one of the EU28 member states also increased to 65%. These figures are very similar to the overall trend for Austria in this period. The decline in net migration can mainly be

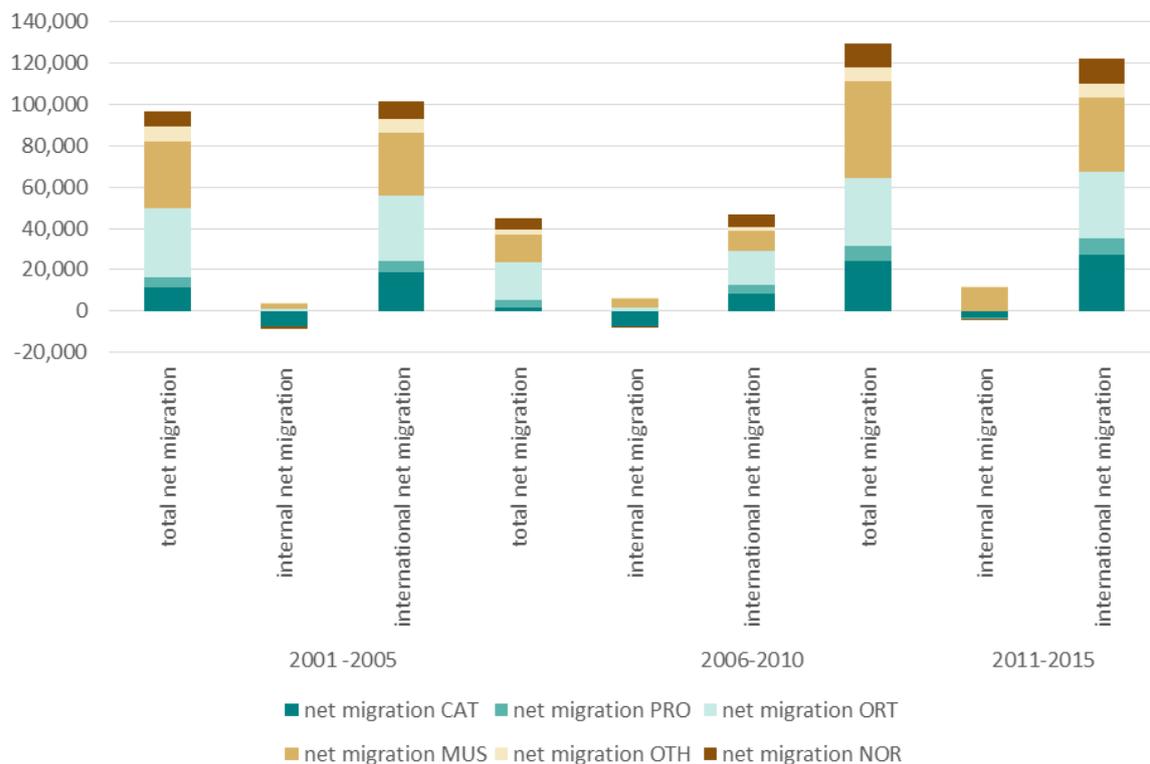
explained by the fact that emigration and out-migration together increased to 358,957 – an increase of about 99,100 people. The outward flows are – as in the past – dominated by a European composition: 38% Austrians and 43% Europeans. The Orthodox group had the highest share of the net migration gain with 40%; the share of Muslims experienced a minor decline in comparison with the previous period to 31%. While the group of No religion grew to 12% and the share of Protestants increased to 9%, the share of Others (5%) and in particular the share of Roman Catholics (3%) decreased in comparison to the previous period.

With a gain of some 129,688 people, net migration in the period 2011 and 2015 almost tripled compared with the previous period, which results in a similar picture to what was observed in Austria. In total 311,657 immigrants from abroad were registered in Vienna. When adding asylum seekers to the volume of international immigration stated in the migration statistics, as explained before, 318,622 international immigrants arrived in Vienna. But not only international immigration increased, also internal in-migration continued to rise, resulting, in contrast to the previous periods, in an internal net migration gain. In total, 487,290 people moved to Vienna during 2011 and 2015. The changing international migration pattern towards Austria also affected Vienna. Afghanistan and Syria are among the most important countries of origin of immigrants. The share of migrants born in a European country decreased, compared with the previous period, from 79% to 75% – the same level as in 2001-2005 and still higher than what was observed for Austria as a whole. The trend of increasing emigration and out-migration from Vienna continued in 2011-2015. Overall, 357,602 people left Vienna; as it has been the case in the previous years, the outward migration movement is characterised by a strong European component with approximately 81% of European background. Under those circumstances, the share of Muslims within the total net migration gain increased to 36%<sup>13</sup> compared with previous years, whereas the share of the Orthodox group declined to 25%. The share of Roman Catholics also increased compared to the previous years to 18%, while the shares of Protestants (6%) and of the unaffiliated (9%) decreased. The share of Others remained stable with 5%. Figure 9 presents an overview of the religious distribution of net migrants from 2001 to 2015.

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<sup>13</sup> Without adding first-time asylum applicants of November and December 2015, the share amounts to 33%.

Figure 9: Vienna – Estimated religious distribution of net migration from 2001 to 2015 and respectively share in net migration



	2001-2005	2006-2010	2011-2015
Total net migration	12%	3%	19%
CAT			
Total net migration	5%	9%	6%
PRO			
Total net migration	34%	40%	25%
ORT			
Total net migration	33%	31%	36%
MUS			
Total net migration	8%	5%	5%
OTH			
Total net migration	7%	12%	9%
NOR			

Source: Statistik Austria and authors' calculations

CAT = Roman Catholics, PRO = Protestants, ORT = Orthodox, MUS = Muslims, OTH = other religions, NOR = no religion

### 3.3. Fertility – Data and Method

Computation of fertility rates requires information on a) the number of live births to mothers by age and their religious affiliation, and b) number of women of reproductive

age (generally 15 to 49 years) of different religious affiliation. While Statistik Austria collects and publishes data on the religion of mothers of every child born in Austria, and also by Federal States (birth register)<sup>14</sup>, the data on number of women by age and religion (exposure) are not available from the Central Register of Residence (ZMR). The most recent available data for both data series pertain to 2001. Beyond this year, religious composition of Austria's population had to be estimated. Thus, the data on women by age and religion that enter fertility calculations are derived from the reconstruction based on the census 2001, migration statistics 2001-2015 (random migrant assumption for religion), and mortality and secularisation trends, as detailed in the reconstruction section of the report.

The information on the religion of the mother that is available from the birth register suffers from several deficiencies for our purposes, particularly since the data are recorded in pre-defined categories that in some cases differ from our definitions. The birth register information on religious affiliation is limited to the following categories: Roman Catholic, Protestant ('Evangelic'), Old Catholic, Jewish, Muslim, Jehovah Witnesses, no religion or unknown, and other registered religions. Live births to Orthodox women, who are a significant group both in Vienna and in Austria, are included in the 'Others' residual category. Those with no religion and unknown/unreported religion are aggregated into a single category whose size is increasing as more and more mothers do not report any religion. Therefore, we made the following adjustments:

- We have assumed the same age-specific fertility rates for Orthodox women in Austria as for all women;
- In order to suppress the effect of the non-reporting of religious affiliation we assumed fixed differentials (ratio) between the total fertility rate of women with no religion and the overall total fertility rate in Austria,
- Other religions is a residual category. Live births in this category were computed as the difference between all live births and live births to women in other categories (Roman Catholic, Protestant, Muslim, Orthodox, None).

Overall, this means that the fertility rate estimates are more reliable for Roman Catholics, Protestants and Muslims than for the other groups. Uncertainty is highest for Orthodox and Others.

Since the reconstruction was performed in 5-year steps, fertility rates are presented for 5-year periods.

#### *Vienna*

In Vienna the religiously unaffiliated constitute a significant share of the population of women in reproductive ages (24% in 2001 compared to 11% in Austria). The data on live births seem not to be affected by non-reporting as much as for the whole of Austria. Thus,

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<sup>14</sup> Religion of the mother is available until 2015. Due to increasing non-response in the reporting of religion of mothers and fathers, Statistics Austria will not publish any data on the religion of parents beyond 2015.

we made no adjustments to live birth data for Vienna. For Orthodox and Others we use the same fertility rates that are identical to the average for this broad group. Counts of women by age and religion were obtained using the same procedure as detailed above for Austria.

### 3.3.1. Results

#### *Austria*

Total fertility rate (TFR)<sup>15</sup> has been on an upward trajectory in Austria throughout the 21<sup>st</sup> century. Between 2001 and 2015, TFR for all women in Austria increased from 1.36 to 1.49 (Zeman et al. 2015; Statistik Austria 2016<sup>16</sup>) and it changed from 1.38 to 1.45 between 2001-2005 and 2011-2015 (see Figure 10). These are relatively low values in comparison to some other European countries and Austrian fertility is consistently slightly below the EU average, however, very similar levels are seen across the German-speaking and neighbouring countries to Austria (VID and IIASA 2016).

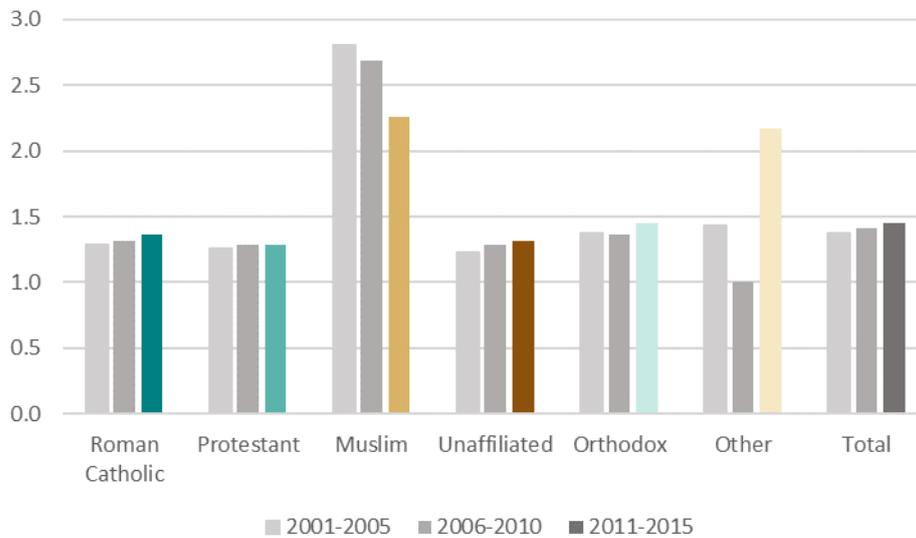
The TFRs of Christians and unaffiliated women followed the general increasing trend, with the largest gains among the unaffiliated (+0.09) and Roman Catholics (+0.08). In spite of a moderate increase, TFR has been below 1.5 children per woman with small variation across the religious groups except for Muslims. Unlike for other groups, Muslim fertility has been declining and dropped to 2.26 children per woman in 2011-2015. As a result, the gap between the fertility of Muslims and overall TFR of Austrian women has narrowed down: in 2001-2005, Muslim TFR was double the average of Austria but in 2011-2015 it was 56% higher.

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<sup>15</sup> Total fertility rate (TFR) is an estimate of the number of children who would be born to women in reproductive age at a given calendar period if they were to pass through the childbearing schedule of that period. Thus, TFR is not equivalent to lifetime fertility of these women, but an estimate based on the situation in a given year. Due to changes in age at childbearing, TFRs can differ substantially compared to actual lifetime fertility.

<sup>16</sup> [http://www.statistik.at/web\\_en/statistics/PeopleSociety/population/births/index.html](http://www.statistik.at/web_en/statistics/PeopleSociety/population/births/index.html) (last accessed on February 28, 2017).

Figure 10: Total Fertility Rates by religion, Austria

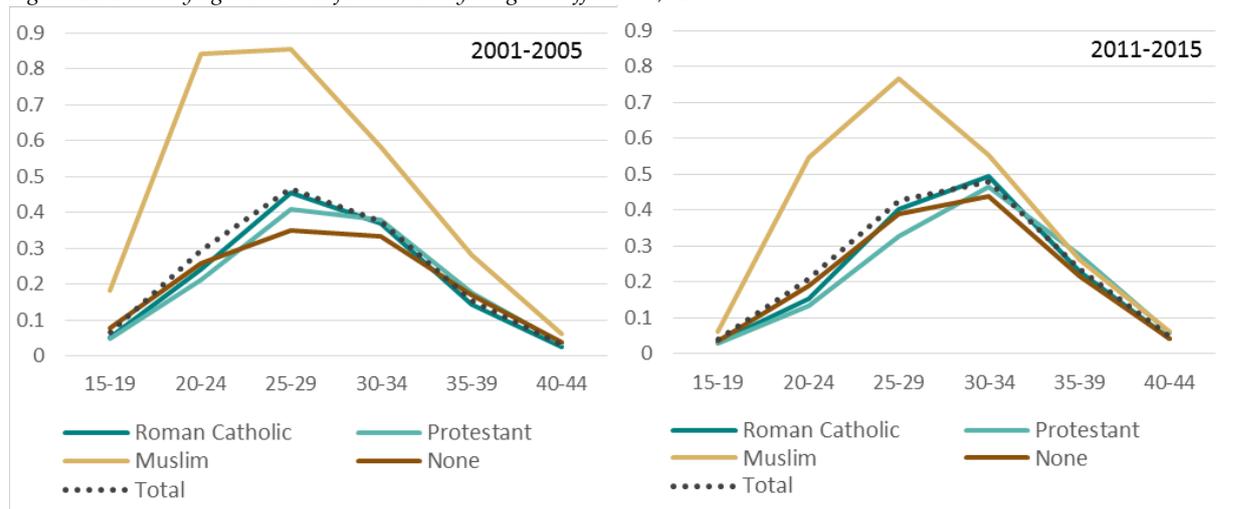


Source: Statistik Austria birth register, authors' calculations.

Women of no religious affiliation used to have the lowest fertility rates; however, this has changed and in 2011-2015 Protestant women were the lowest fertility group. Their TFRs remain below the lowest-low fertility threshold (defined as 1.3 children per women by Kohler, Billari and Ortega (2002)).

One trend that is common for women of all religious groups is postponement of childbearing towards later age. This is true also for Muslim women, who still have high fertility in their 20s, but between 2001-2005 and 2011-2015 their teenage fertility as well as fertility rates at age 20-24 declined significantly (see Figure 11).

Figure 11: Fertility age schedules for women by religious affiliation, Austria



Source: Statistik Austria birth register, authors' calculations.

Roman Catholic, Protestant and unaffiliated women have very similar childbearing age patterns, typical with highest fertility rates at age 30-34 and fertility increases among women 35 and older. For the Orthodox and Others the data are too scarce to make meaningful observations.

Overall we can conclude that the religious differentials have been narrowing down since 2001 and the data are in agreement with the fertility convergence hypothesis.

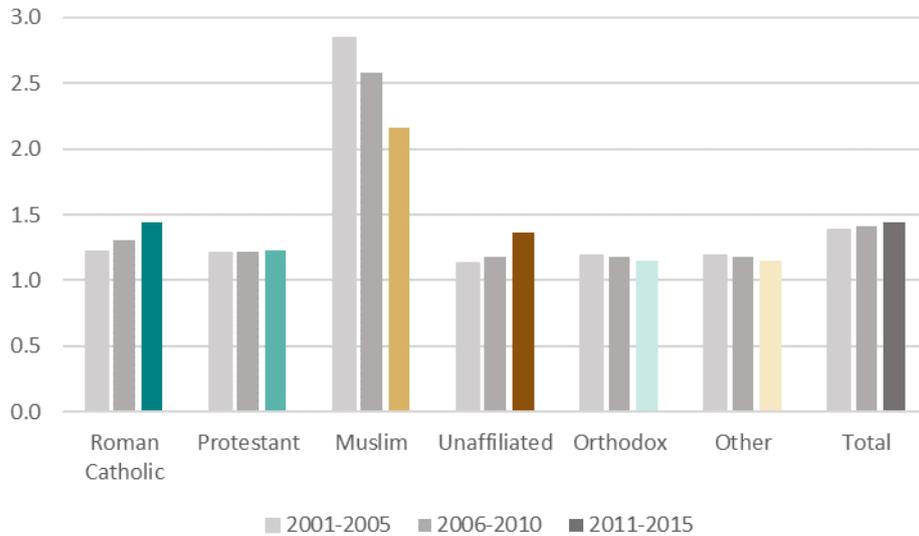
### *Vienna*

Compared to Austria, TFRs of Viennese women are practically identical during the three observed periods (1.38 in 2001-2005, 1.41 in 2006-2010, 1.44 in Vienna compared to 1.45 in Austria in 2011-2015). Fertility has increased and variation across the religious groups has declined in both. Similarly to Austria, TFRs of the unaffiliated (+0.23) and Roman Catholic women (+0.22) increased the most (see Figure 12). Viennese Roman Catholic and Protestant women have their children at much later age – mostly after age 30 – compared to women in the rest of Austria. Fertility of Muslim women has declined more rapidly in Vienna than in Austria overall (-0.1). Due to the substantial influx of immigrants from predominantly Muslim countries, and the significant share of asylum seekers finding lodgings in Vienna, these recent arrivals have boosted the number of women in reproductive age. In 2011-2015 the number of births to Muslim women reported in the birth register declined and the TFR dropped as well. However, fewer births may not be the main reason why we observed lower TFR. In the same period, and particularly in 2015, the number of Muslim women in reproductive age increased sharply as a result of intensified migration. It is possible that the declining number of births really means a declining fertility rate, since the number of births declined, but the fertility rates are sensitive to changes in the size and composition of the female population<sup>17</sup> and a significant number of recently arrived Muslim women may have shifted the TFRs downwards. The largest decline occurred in young ages below 25, and we know that most new immigrant were young. If the change in fertility rates is mainly due to a declining intensity of childbearing, this would be symptomatic of transition towards below-replacement fertility. Although Muslim women differ in their reproductive behaviour from Christian and unaffiliated women, these differences are diminishing over time (see Figure 13).

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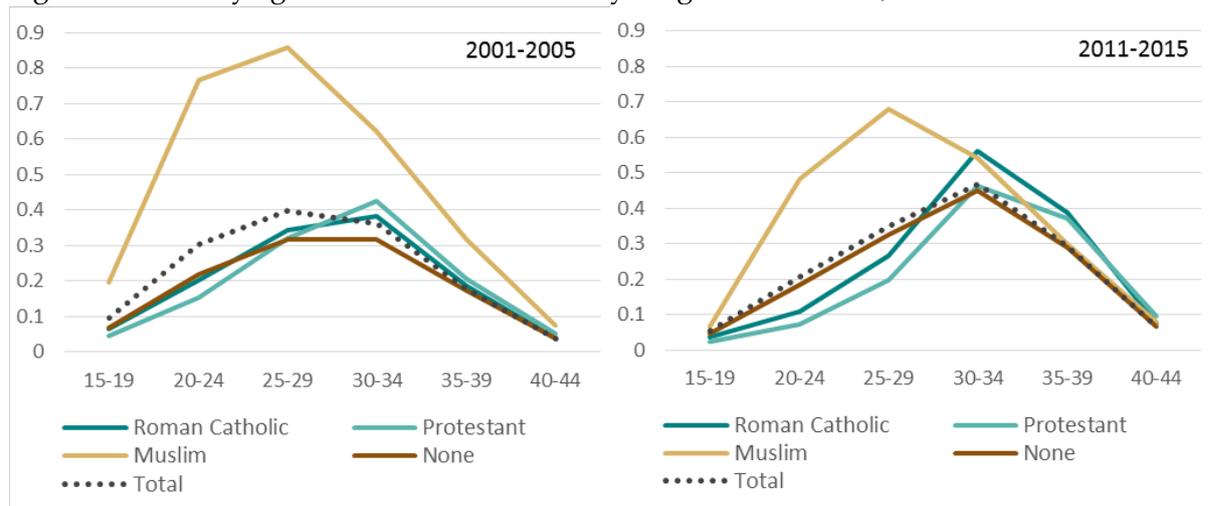
<sup>17</sup> Fertility rates are computed as a ratio between recent number of births and number of women in age group 15-49, thus an abrupt change in the number of female population results in a changing rate even if there was no behavioural change.

Figure 12: Total Fertility Rates by religion, Vienna



Source: Statistik Austria birth register, authors' calculations.

Figure 13: Fertility age schedules for women by religious affiliation, Vienna



Source: Statistik Austria birth register, authors' calculations

### 3.4. Secularisation

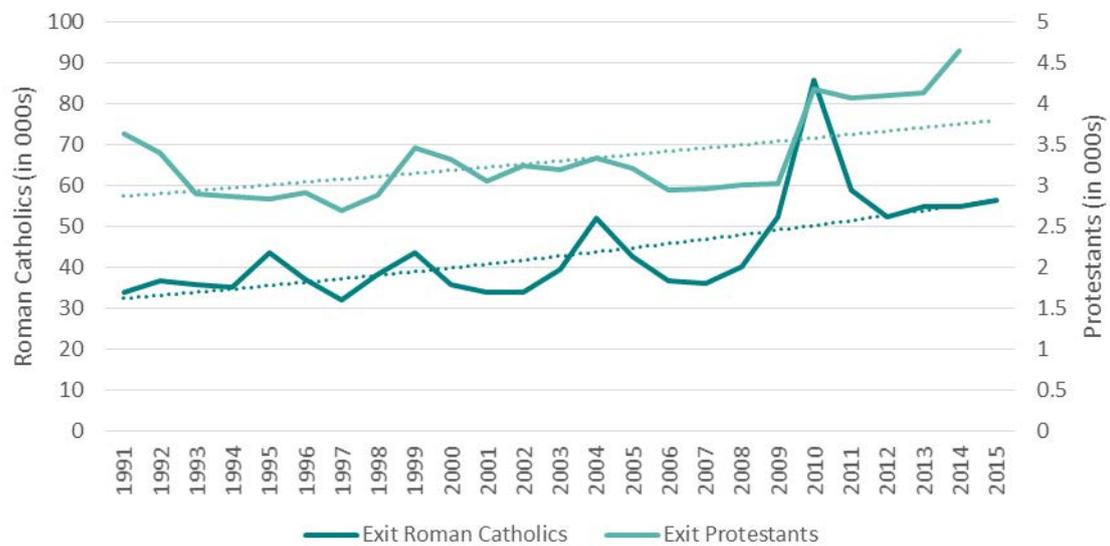
Secularisation and religious conversions are crucial for capturing the changes in the religious landscape of Austria and Vienna. Information about change of religious denomination by Federal States in terms of entrance and exit from the Roman Catholic Church and Protestant Church<sup>18</sup> respectively were collected from the Austrian statistical

<sup>18</sup> The Protestant Church consists only of the Evangelical Church of the Augsburg and Helvetic Confessions – other Protestant confessions are not counted under this group.

yearbook (Statistisches Jahrbuch Österreichs). We interpolated to estimate the missing data for the years 2012 and 2015 for the Protestant Church. For the years 2011 and 2015, data for the Catholic Church are available for Austria, but not for Vienna. To estimate the entry and exit for these years, the annual change rate of the Diocese Vienna (which does not follow the administrative borders of Vienna, but also includes parts of Lower Austria) was applied to the figures for Vienna (Katholische Kirche 2017).

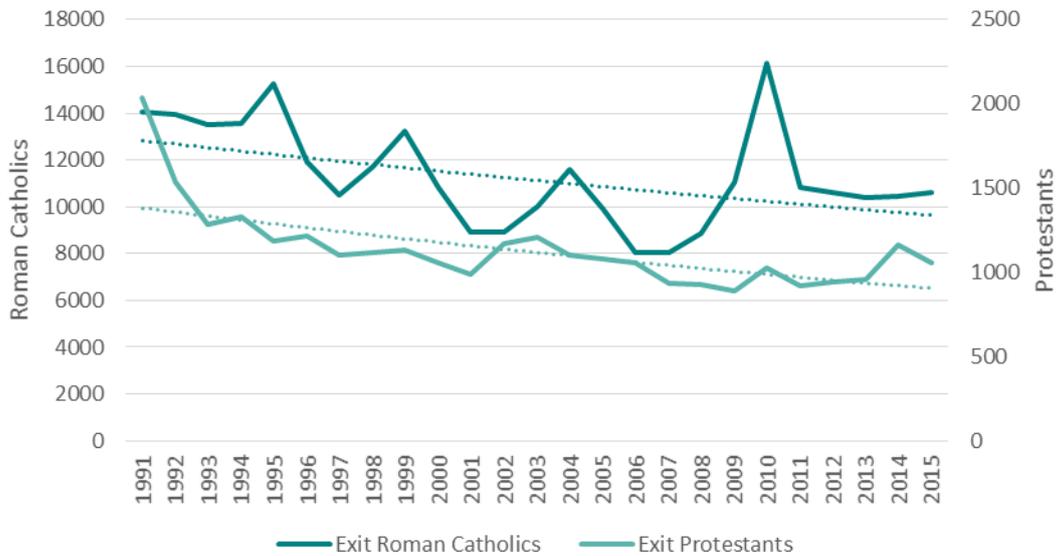
Overall, Roman Catholic and Protestant Churches have been losing members in a similar way, but to a different extent (see Figure 14 and Figure 15). Most of the Roman Catholic peak losses (2004, 2010) correspond to church-related scandals. Those exits resulted in an increasing share of people with no religious denomination.

Figure 14: Austria - Absolute numbers of exiting Roman Catholics and Protestants



Source: Statistisches Jahrbuch Österreichs and authors' calculations

Figure 15: Vienna - Absolute numbers of exiting Roman Catholics and Protestants

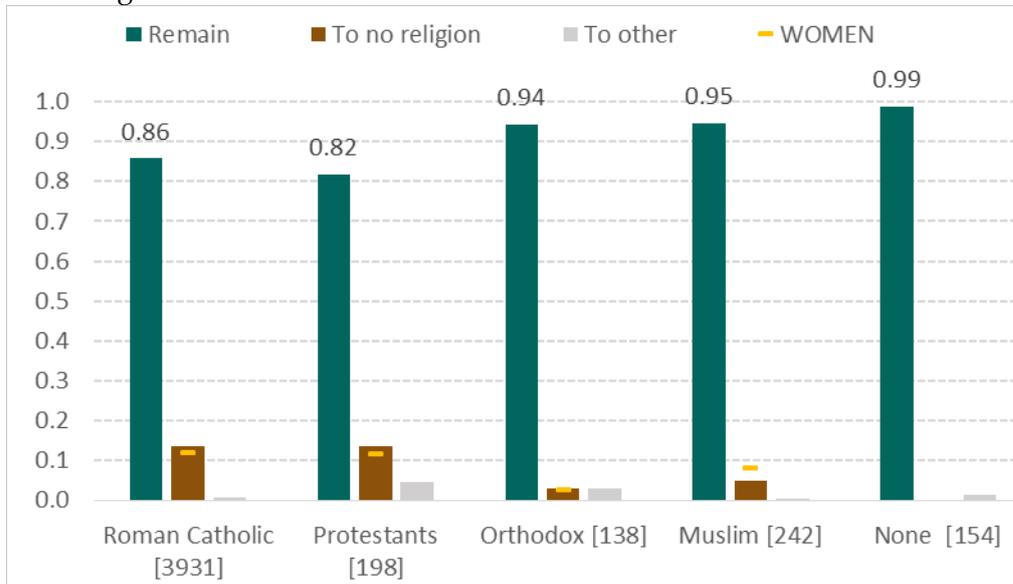


Source: Statistisches Jahrbuch Österreichs and authors' calculations

Official statistics on religious switching for Orthodox and Muslims are not available; we therefore turned to the Gender and Generations Survey (GGS)<sup>19</sup> to see if there is any evidence of religious switching for these groups. As expected, we find that Protestants and Roman Catholics are more likely to change religion (Figure 16). Those leaving these two denominations are much more likely to become secular (unaffiliated) than change to a different denomination. Only about 5% of Orthodox or Muslims changed their affiliation, and again the exits were mostly to no religion. The unaffiliated are particularly stable as a group, however, this result may be related to the phrasing of the survey questions.

<sup>19</sup> In the second wave of the GGS, collected in 2012-2013, the respondents (men and women 18 to 50 years old) were asked what their religious affiliation was at the time of the survey, whether they had a different religion previously, and if so, what denomination it was. Using these three questions we could compute probability matrix between the religious groups.

Figure 16: Probabilities of religious switching for 18-50 year old adults in Austria according to GGS 2012-2013



Source: GGS 2012-2013, authors' calculations; Note: Weighted counts in brackets.

According to the GGS, men are more likely to change religious affiliation than women. This finding is in line with the existing scientific literature (Pew Research Center 2016). This factor was considered in the reconstruction by attributing a higher share of leavers to the male population (53%) compared to the female one (47%) based on the GGS data.

### 3.5. Mortality

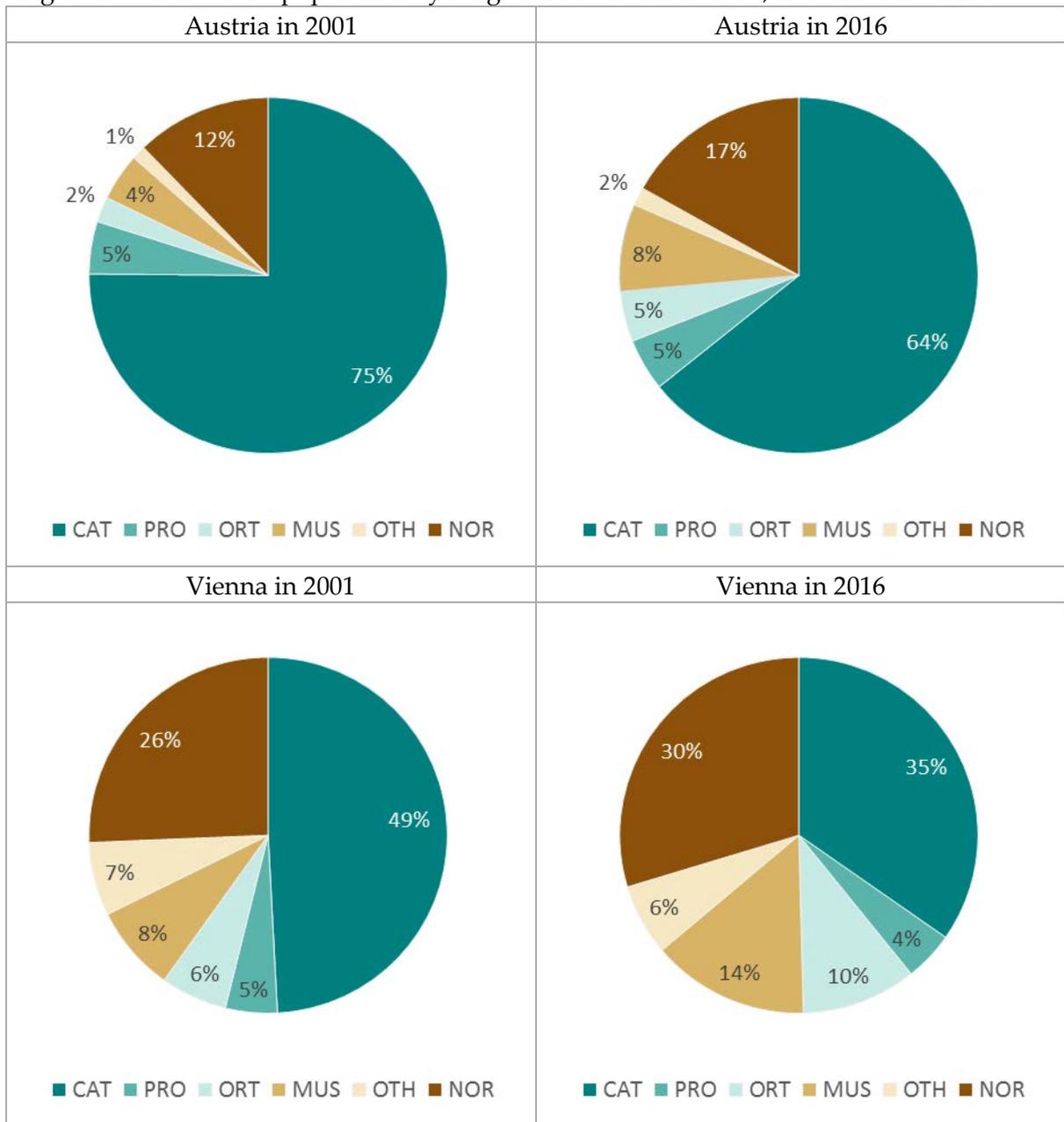
The evidence of a relationship between religion and mortality is inconclusive. While some studies find religiosity to be associated with better health outcomes (see Hummer et al. 2004), others suggest that as the more religious tend to have lower education levels (Glaeser and Sacerdote 2008; Inglehart and Baker 2000), they would have worse health outcomes (Groot and Van Den Brink 2007). Klotz and Gisser (2015) analysed mortality differentials by religious denomination in Vienna in the period 1981 to 2002 and concluded that selection effects associated with international migration and socio-economic disparities between religious groups influence mortality differentials.

For this project, mortality differentials by religion were not considered, as the data are not available. Thus, mortality rates are identical across all religious affiliations. Mortality rates by 5-year age groups are extracted from life tables available at Statistik Austria (Jährliche Sterbetafeln). Life tables are available both for the whole of Austria and for Vienna.

### **3.6. Population in 2016**

The reconstructed population of 2016 by religion shows that the religious composition of the Austrian population has changed noticeably since 2001 (see Figure 17). The secularisation trend continued and the share of the Roman Catholics has declined further from 3/4 of the population in 2001 to 2/3 in 2016. Most of the relative increase occurred in the group of the population without religion, who account for 17% of the population in 2016 compared to 12% in 2001. The Orthodox and Muslim communities have grown substantially, from 2% to 5% for the Orthodox and from 4% to 8% for the Muslims between 2001 and 2016. The change in religious landscape is similarly impressive in the city of Vienna, where the share of Roman Catholics has further decreased to 35% in 2016 (from 49% in 2001). At the same time, the share of the unaffiliated reached 30% in 2016; it increased by mere 4 percentage points since 2011 (26%). The share of Muslims increased most rapidly with 14% in 2016 (from 8% in 2001), followed by the Orthodox, whose proportion rose from 6% in 2001 to 10% in 2016.

Figure 17: Share of the population by religion in 2001 and in 2016, Austria and Vienna



Source: Statistik Austria and authors' calculations

CAT = Roman Catholics, PRO = Protestants, ORT = Orthodox, MUS = Muslims, OTH = other religions, NOR = no religion

#### 4. Part II: The religious Composition in 2046 across Different Scenarios

The reconstructed population by age, sex and religion on January 1, 2016 as mentioned above serves as basis for the projection scenarios. The next step is to look at the future following different scenarios.

#### 4.1. Scenario and Narratives of Possible Futures

Scenarios are commonly used in population projections to show the uncertainty about the future. It is crucial to emphasise that scenarios are not to be viewed as forecasts, but rather as means to answer various *hypothetical* questions. What-if projection scenarios allow to sketch out alternative possible futures or to demonstrate the effect of certain constraints on mid- to long-term population change or composition. This means that several possible futures are mapped, each of which is plausible but not certain (van der Heijden, 1996).

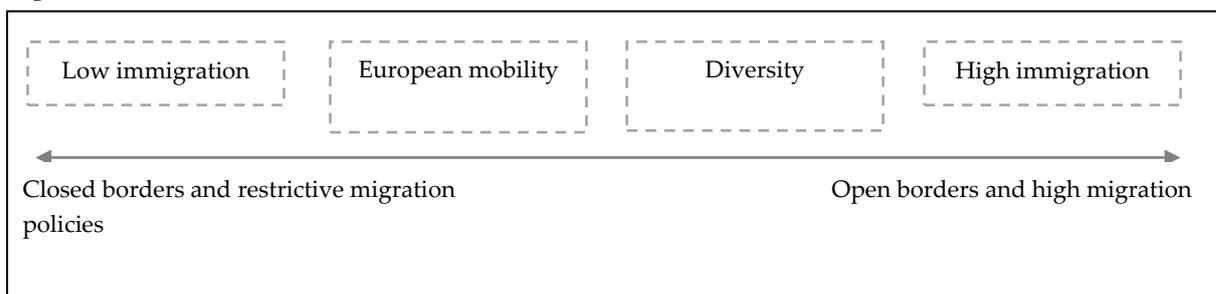
To develop scenarios, critical uncertainties have to be identified to answer what driving forces of change are most uncertain, but will have a great impact on future developments. Starting point of a scenario analysis is the formulation of narratives of possible futures involving the identified uncertainties and driving forces. The narratives are then translated into scenario assumptions. Similarly to the reconstruction work, the projections to 2046 require assumptions about the following:

- (1) age- and religion-specific fertility from 2016 to 2046;
- (2) age- and sex-specific mortality from 2016 to 2046;
- (3) age-, sex- and religion-specific internal and international migration flows (in and out) from 2016-2046;
- (4) age- and sex-specific religious switching from 2016 to 2046.

In the case of projections, and contrary to the reconstruction, we have no information about the different components of change, except that many of the determinants of population growth have a large momentum. This is also true for religious change, but less so for international migration, which tends to be more volatile. We have focused specifically on international migration to project the possible future religious composition of Austria's and Vienna's population, as Goujon et al. (2014) have shown that migration was one of the key drivers shaping the religious landscape in Vienna.

We have formulated a range of scenario assumptions along a scale of hypothetical situations ranging from closed borders and restrictive policies to open borders with unrestricted migration policies. These narratives have implications in terms of volumes and composition of international migration. We have linked the more restrictive migration scenario to a predominantly European immigration, while the open border scenario translates into increased immigration from the Middle East and North Africa (MENA) and from Sub-Saharan Africa.

Figure 18: Scenarios



The other demographic (fertility) and religion (religious switching) determinants are derived so as to be consistent with the migration narratives and in agreement with scientific knowledge. Furthermore, the scenarios take into account overall migration and fertility assumptions of *Statistik Austria* in their different scenarios. Table 2 gives a brief overview of the main components of our four narratives. The four scenarios summarised in the table below are tools intended to help imagine the different scenarios and thus have not been assigned probabilities.

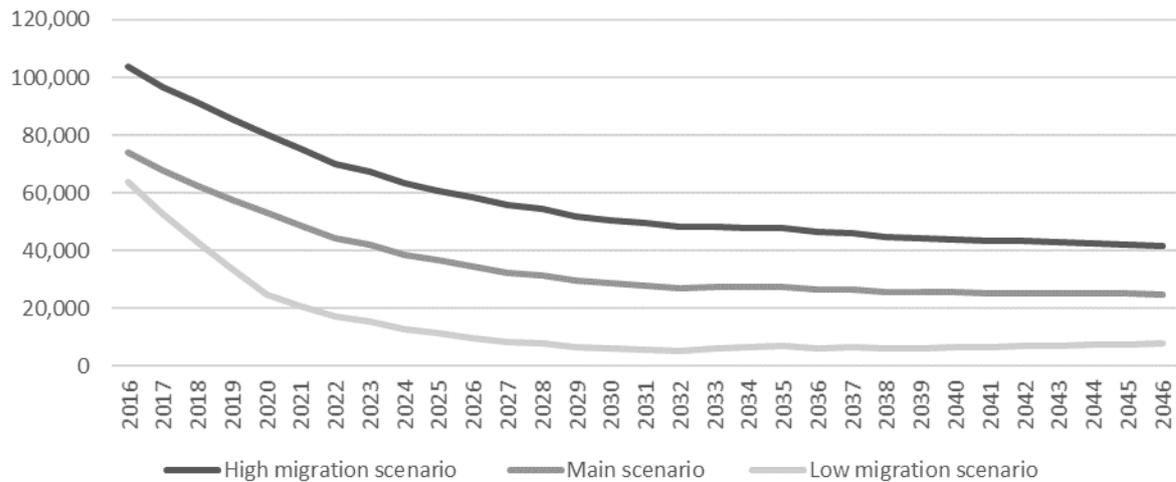
Table 2: Scenario Narratives

<b>Scenario</b>	<b>Narrative</b>
<b>European mobility</b>	International migration flows to Austria follow the medium variant and are mainly composed of Europeans (as observed in 2006-2010). Fertility follows a medium path, as well as secularisation.
<b>Diversity</b>	International migration flows to Austria follow the medium variant and have a strong non-European composition as observed in 2011-2015. Fertility follows a medium path, as well as secularisation.
<b>Low immigration</b>	International migration flows to Austria are declining and come to a halt by 2021 when Austria closes its borders. Fertility is low and secularisation trends are high. In this scenario future changes in the religious composition of the population are primarily driven by natural change (i.e. births and deaths) and religious switching.
<b>High immigration</b>	External borders lose relevance and international migration flows to and from Austria increase compared to the past. The extra-immigrants (compared to the number of immigrants in 2011-2015) come mainly from the Middle East and North African (MENA) and sub-Saharan African (SSA) countries. Fertility is high and secularisation trends are low.

## 4.2. Migration

Estimating future migration is challenging as migration flows are sensitive to government policies, economic conditions and international events that can change rapidly. The overall migration figures of the developed scenarios are based on the different population projection scenarios of *Statistik Austria*: Low migration scenario (Untere Wanderungsvariante), high migration scenario (Obere Wanderungsvariante) and main scenario (Hauptvariante). Figure 19 shows the range of net migration flows in the different scenarios.

Figure 19: Net-migration according to the different scenarios of Statistik Austria



Source: Statistik Austria Population Forecasts

Statistik Austria publishes the main scenario (Hauptvariante) both for the whole of Austria and also for each Federal Province, including Vienna. For the other scenarios, however, only figures for Austria are available. Thus, the ratio of the main scenario regarding – international as well as internal – migrants moving to and from Vienna in relation to the figures for migration for Austria was applied to the low migration scenario and to the high migration scenario to estimate the number of migrants in the low and high migration scenario for Vienna.

Migration patterns between certain sending and receiving countries are often established due to prior links and networks after an initial migration connection such as guest worker programmes, linguistic or geographical proximity or shared historical connections. This is important regarding projections, as our estimates are to some extent based on migration trends that could be observed in the period 2006 to 2010 as well as in the period 2011 to 2015.

#### 4.2.1. European Mobility Scenario

##### Austria

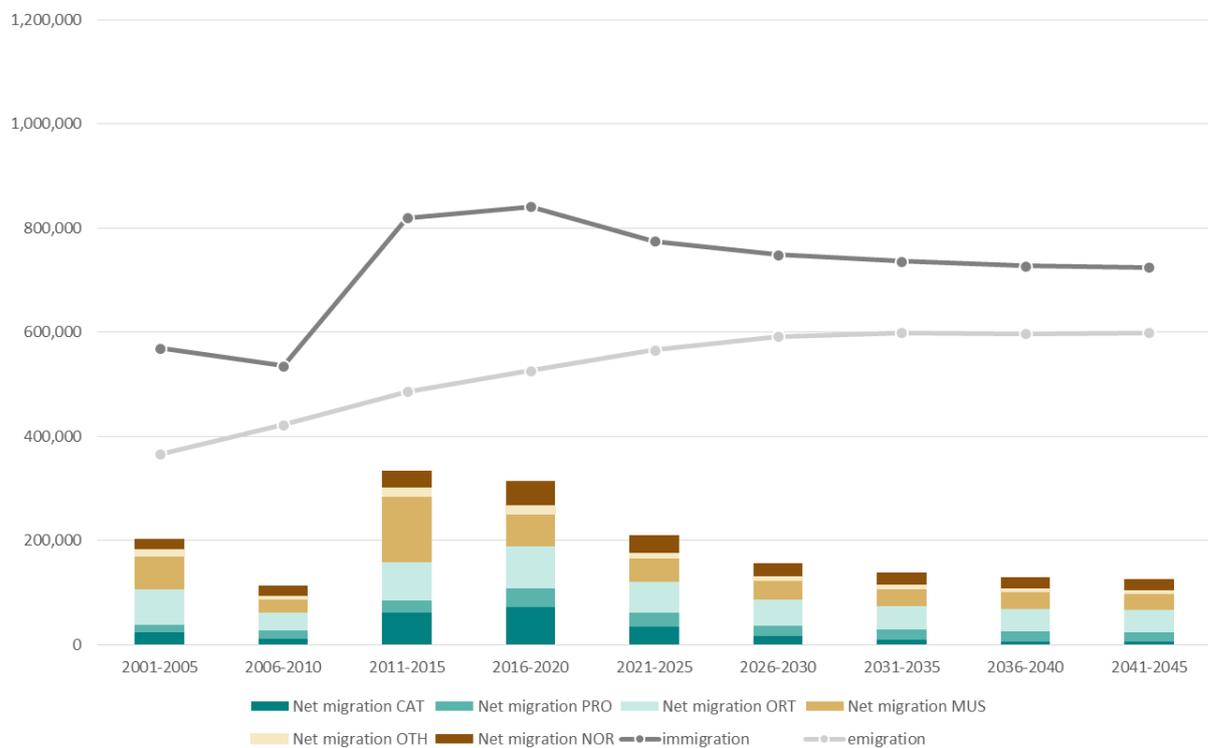
The scenario *European mobility* follows the main scenario of Statistik Austria population projections. In Statistik Austria's main scenario, immigration peaks in 2016-2020 with 841,000 immigrants and afterwards this projected number declines to 725,000 in 2041-2045. These volumes of immigration are considerably higher than what was observed in the past before 2011, and slightly lower than those observed in the most recent period (2011-2015). We further link these migration inflows with a composition dominated by Europeans: 78% of the immigrants would come from European countries, 62% from EU28-countries. This composition is similar to the one observed in Austria in 2006-2010.

Whereas immigration is declining after 2020, emigration rises continuously from 486,161 in 2011-2015 to 526,368 in 2016-2020 and further to 599,143 in 2041-2045. The volumes are again taken from the main scenario of Statistik Austria population

projections. Similarly to immigration, we suppose that emigration is also dominated by Europeans: about 79% of the emigrants were born in a European country. Thus, the majority of immigrants and emigrants would belong to a Christian denomination.

Figure 20 gives an overview of the estimated religious composition of net migrants in this scenario. The share of Christian net migrants is projected to increase from 47% (2011-2015) to 52% (2041-2045), whereby the different Christian<sup>20</sup> groups would follow varying trends: The share of Orthodox is projected to increase from 22% to 34% and that of Protestants as well from 7% to 14%, whereas the share of Roman Catholics would decrease from 19% to only 4%. While the share of Muslim net migrants is projected to decrease from 38% in 2011-2015 to 25% in 2041-2045, the share of unaffiliated net migrants would grow from about 10% in 2011-2015 to 17% in 2041-2045.

Figure 20: Scenario European mobility: Migration to and from Austria



Source: Statistik Austria and authors' calculations

CAT = Roman Catholics, PRO = Protestants, ORT = Orthodox, MUS = Muslims, OTH = other religions, NOR = no religion

### Vienna

Based on the main scenario of Statistik Austria population projections, immigration from abroad and in-migration from other Federal States towards Vienna would increase in the first projection period (2016-2020) to 512,319, compared with the observed volume of 487,290 persons in 2011-2015. Thereafter, migration towards Vienna is assumed to decline

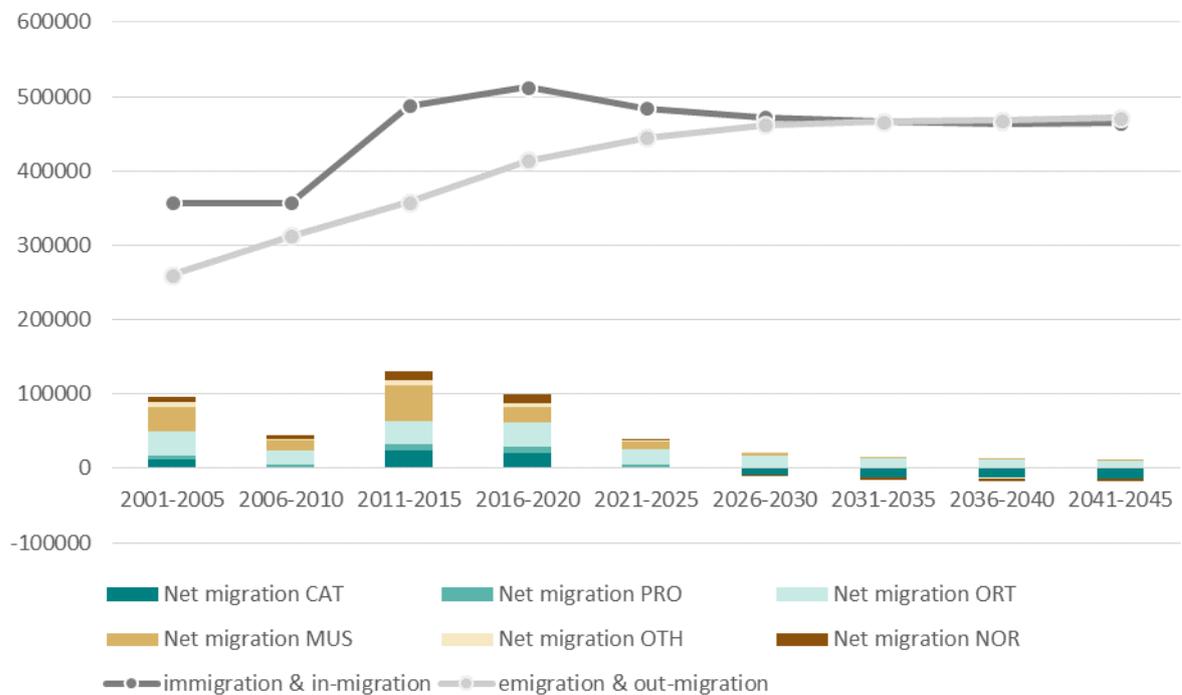
<sup>20</sup> For the purpose of this report, *Christian* refers to Roman Catholics, Protestants and the Orthodox group.

to 464,266 until 2041-2045, but is still considerably higher than what was observed in the past before 2011. International emigration and internal out-migration from Vienna would increase sharply between 2011-2015 (357,602, observed volume) and 2016-2020 (413,605 assumed outflow) and increase continuously thereafter. From 2031-2035 onwards, Vienna experiences a migration loss as emigration and out-migration exceeds immigration and in-migration. This trend of internal net migration loss was also observed in the 2001-2005 and 2006-2010 periods.

The composition of migration flows towards and from Vienna is largely based on the trend which was observed in the years 2006 to 2010 with a strong EU component of migrants arriving in Vienna. In order to ensure that the internal net migration flow (in- and out-migration) is representative of the future population living in Vienna and Austria respectively, from 2026 onwards the random migrant assumption is used for estimating the religious distribution of the internal net migration. This assumption was applied in all scenarios for Vienna.

Figure 21 presents an overview of the estimated migration to and from Vienna by religion in this scenario. Regarding the religious composition of net migrants, the by far largest net migration gain is attributed to the Orthodox migrants during the whole period. The share of Muslims net migrants is projected to decrease considerably compared with the period 2011-2015. Similarly, the share of Roman Catholic and of unaffiliated migrants would decline strongly; from 2026-2030 onwards, these two groups would be characterised by a negative net migration.

Figure 21: Scenario European mobility: Migration to and from Vienna



Source: Statistik Austria and authors' calculations

CAT = Roman Catholics, PRO = Protestants, ORT = Orthodox, MUS = Muslims, OTH = other religions, NOR = no religion

#### 4.2.2. Diversity Scenario

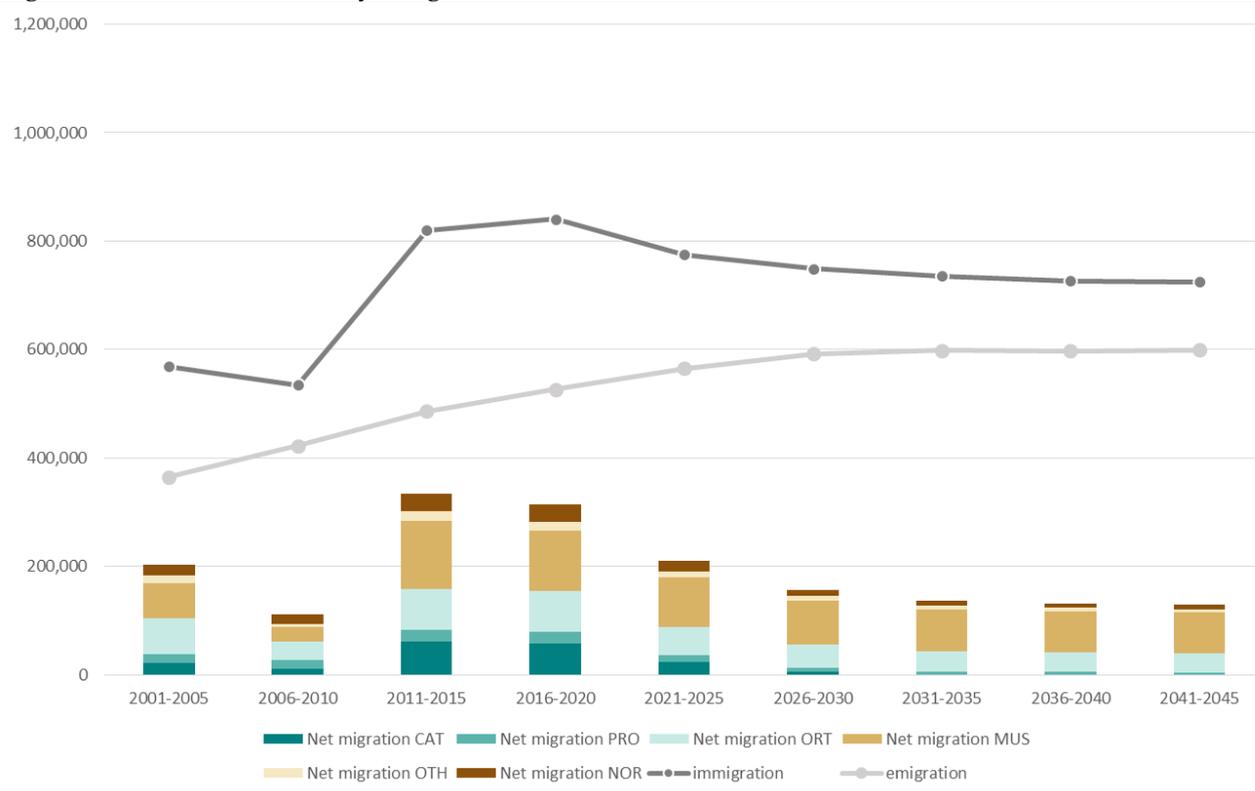
##### *Austria*

Similarly to the *European mobility* scenario detailed in the previous section, the projected migration flows in the *Diversity* scenario follow the main scenario of Statistik Austria population projections. Immigration peaks in 2016-2020 with 841,000 immigrants and would decrease to 725,000 in 2041-2045. In contrast to the *European mobility* scenario, the composition of the migration flow is similar to what was observed in Austria in 2011-2015 with immigration being characterised by a rather strong non-European component. In this scenario countries such as Afghanistan, Syria, Iran and Iraq are among the most prominent countries sending migrants to Austria. The share of European immigrants coming to Austria makes up approximately 73% of the total number of immigrants (6 percentage points less than in the *European mobility* scenario), and the share of immigrants coming from EU28 is 58% of the total.

Whereas immigration is projected to decrease after 2020 in Statistik Austria's main scenario, emigration would increase steadily from 486,161 in 2011-2015 (observed flow) to 599,143 in 2041-2045 and would be dominated by Europeans: about 79% of the emigrants in this scenario originate from a European country. The estimated religious composition of migration to and from Austria is summarized in Figure 22).

Looking at net migration, the share of Muslim net migrants is projected to increase from 38% in 2011-2015 to 59% in 2041-2045. The share of Christian net migrants would decrease from 47% in 2011-2015 to 29% in 2041-2045, whereby the trend between the different Christian groups would vary as the share of Orthodox net migrants is projected to increase from 22% in 2011-2015 to 28% in 2041-2045, while the Roman Catholic and Protestant net migrants would experience a decline.

Figure 22: Scenario Diversity: Migration to and from Austria



Source: Statistik Austria and authors' calculations

CAT = Roman Catholics, PRO = Protestants, ORT = Orthodox, MUS = Muslims, OTH = other religions, NOR = no religion

### Vienna

Based on the main scenario of Statistik Austria, international immigration and internal in-migration towards Vienna is projected to increase in the first period (2016-2020) to 512,319 and then to decrease to 464,266 until 2041-2045. Emigration and out-migration from Vienna would rise quite sharply between 2011-2015 (357,602) and 2016-2020 (413,605) and are projected to increase continuously thereafter. From 2031 onwards Vienna would experience a migration loss as international emigration and out-migration to other Federal States exceed immigration and in-migration (see Figure 23).

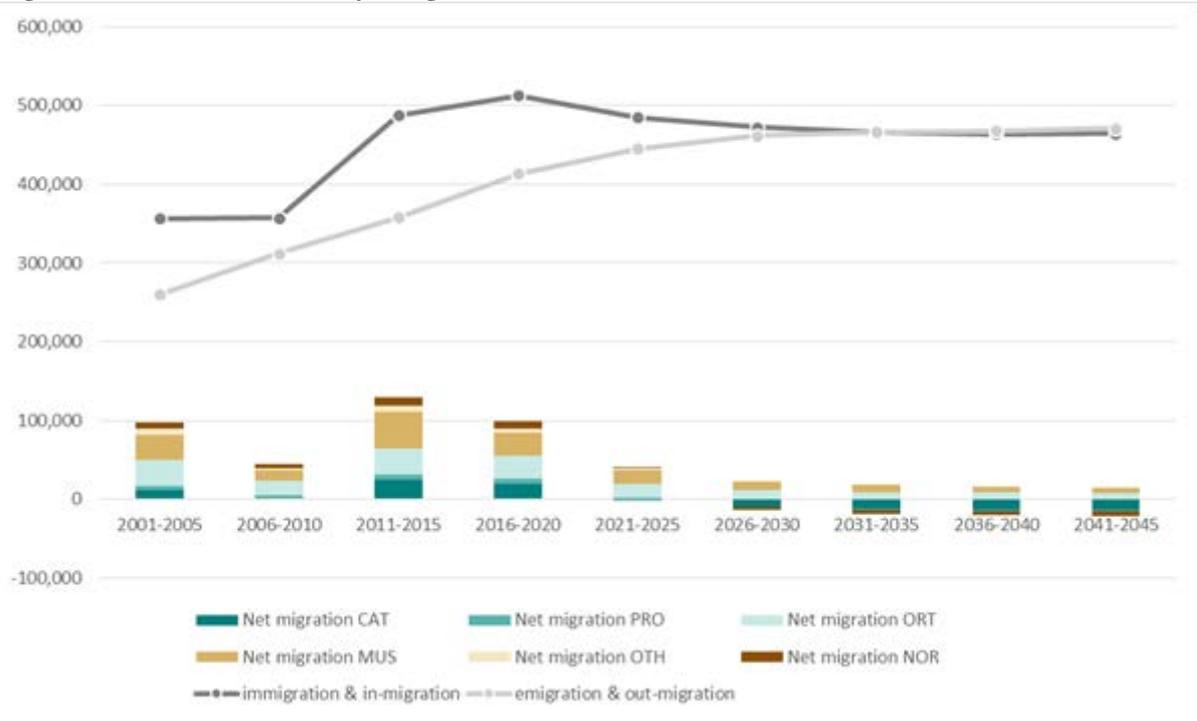
In contrast to the *European mobility* scenario, in the *Diversity* scenario the patterns of migration flows are characterised by a stronger non-European component based on the situation in the years 2011-2015. The high influx of asylum seekers to Austria in the year 2015 most probably influenced migration towards Vienna; we therefore adjusted the composition of migrants coming to Vienna in 2016: We assumed that about 36%<sup>21</sup> of the

<sup>21</sup> This share is derived as a forward projection from the overall trend of international migrants moving to Vienna in 2015. In a sensitivity analysis we applied the share of 50%. The results showed that this increase of the share had no impact on the estimated share of Muslims in 2046.

persons who applied for asylum in Austria in 2015, coming mainly from Afghanistan, Syria, Iraq and Iran, would settle in Vienna.

Figure 23 summarizes the estimated migration by religion to and from Vienna. The largest net migration gain can be attributed to the Orthodox, closely followed by the Muslim migrants. The share of Roman Catholic and of unaffiliated migrants is projected to decrease strongly; already from 2021-2025 onwards, the Roman Catholics would be characterised by a negative net migration.

Figure 23: Scenario Diversity: Migration to and from Vienna



Source: Statistik Austria and authors' calculations

CAT = Roman Catholics, PRO = Protestants, ORT = Orthodox, MUS = Muslims, OTH = other religions, NOR = no religion

#### 4.2.3. *Low Immigration Scenario*

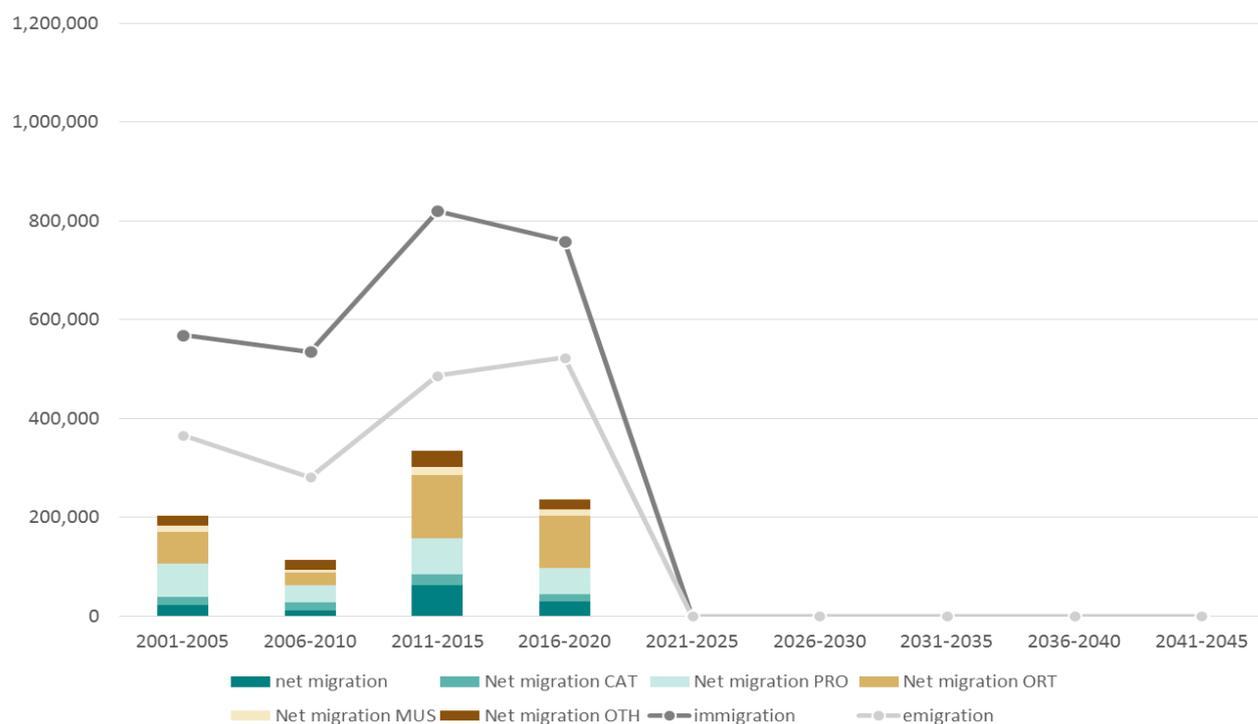
##### *Austria*

Scenario *Low immigration* follows the low migration scenario of Statistik Austria's population projections in the first period (2016-2020). We suppose that this immigration flow would be composed of a considerable share of immigrants from non-European countries, similar to what was observed in 2011-2015. One of the rationales for high share of non-European immigrants in the first projection period is the fact that non-European immigrants, and among them many asylum seekers who arrived to Austria in 2011-2015, have the right to bring their direct family members through family reunification. This means that even though we foresee future restrictions on immigration in this scenario, the share of non-European immigrants would decline only later. Migration research has shown that restrictions of migration policies can have an unintended, counterproductive effect "in the form of 'now or never' migration" (de Haas 2006, p. 10) as increasing restrictiveness interrupts circularity and encourages permanent settlement.

Looking at net migration, the share of Muslim migrants is projected to increase from 38% in 2011-2015 to 45% in 2016-2020. The share of Christian net migrants would decrease from 47% (2011-2015) to 41% (2016-2020), whereby especially the share of Roman Catholics (from 19% to 13%) would decrease while the share of Protestants (from 7% to 6%) and the share of Orthodox (from 22% to 23%) would remain relatively stable. The share of migrants with other religions (5%) is projected to remain stable and the share of unaffiliated migrants to decrease marginally from 10% to around 9%.

From 2021 onwards, we imagine that migration gets to zero, leading to no international migration (neither in nor out) (see Figure 24). In this highly hypothetical scenario, future changes in the religious composition of the population are driven by natural change (i.e. births and deaths) and religious mobility rather than migration.

Figure 24: Scenario Low immigration: Migration to and from Austria



Source: Statistik Austria and authors' calculations

CAT = Roman Catholics, PRO = Protestants, ORT = Orthodox, MUS = Muslims, OTH = other religions, NOR = no religion

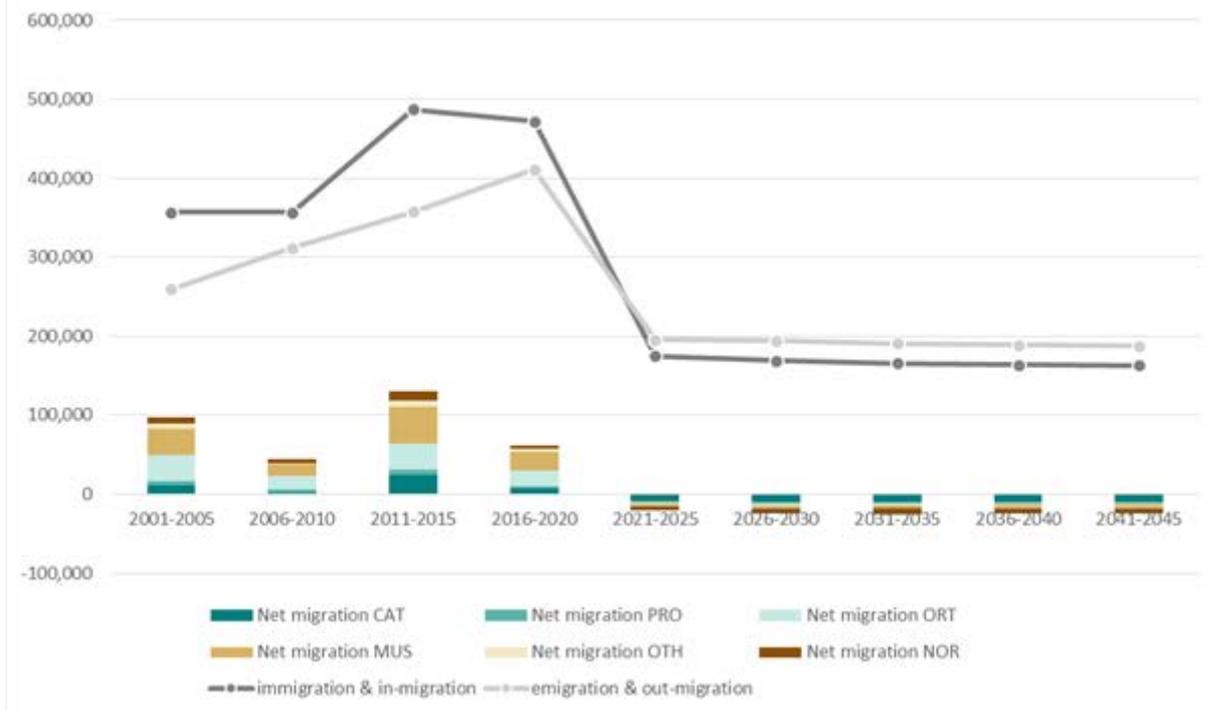
### Vienna

Based on the adapted low migration scenario of Statistik Austria's population projections in the first years (2016-2020), international immigration as well as internal in-migration towards Vienna is projected to decrease to 471,998 compared with 487,290 in 2011-2016. By contrast, emigration and out-migration would increase between the period 2011-2015 (357,602) and 2016-2020 (410,971).

From 2021 onwards, migration to Austria comes to a hypothetical halt. Internal migration to and from Vienna, however, still occurs in this scenario, leading to an overall net migration loss in the years 2021 to 2045 as migration from Vienna to other regions of the country is larger than migration towards Vienna (see Figure 25). As a result of this internal migration pattern, more unaffiliated leave the city than move in. This trend of internal net migration loss was also observed in the years 2001-2005 as well as 2006-2010. In this scenario, internal migration to and from Vienna becomes the main driver of population change.

With respect to the religious composition of migrants, in the first period (2016-2020) the share of Orthodox is projected to increase from 25% (2011-2015) to 32% and that of Muslims from 36% (2011-2015) to 40%. By contrast, the other religious groups would experience a decline. From 2021-2025 net migration in total is negative, resulting in a net migration loss for all religious groups.

Figure 25: Scenario Low immigration: Migration to and from Vienna



Source: Statistik Austria and authors' calculations

CAT = Roman Catholics, PRO = Protestants, ORT = Orthodox, MUS = Muslims, OTH = other religions, NOR = no religion

#### 4.2.4. High Immigration Scenario

##### Austria

The number of migrants follows the high migration scenario for population projections of Statistik Austria, with a peak in the period 2016-2020 at the volume of 991,000 immigrants. Until 2041-2045 this number steadily decreases to 875,000, but is still substantially higher than the immigration observed in the past. This increase is attributed to a strong rise in

immigration from the Middle Eastern and North African (MENA) countries<sup>22</sup> as well as from sub-Saharan African (SSA) countries<sup>23</sup>.

Since the Arab Spring, MENA countries have been undergoing profound changes that have triggered refugee movements due to violent conflicts as well as social and political instability in the region. According to Faath and Mattes (2014, p. 187) MENA countries will remain one of the most conflict-laden regions in the world. The volatility of the region and the subsequent migration are also affecting the European continent. Demographic trends in the MENA region also have the potential to affect migration patterns: The combination of a significant decline in child mortality and the relatively slow onset of fertility decline led to a strong increase in MENA's working age population. This so-called demographic *youth bulge* puts the labour markets in MENA countries heavily under pressure (Müller, Sievert and Klingholz 2016, p. 13). In an in-depth study of migration from MENA to OECD countries, Gubert and Nordman (2008, p. 3) pointed out that "increased labour mobility from the MENA Region could compensate for demographic trends in European labour markets in the next two decades, while constituting a response to the lack of employment in the home countries."

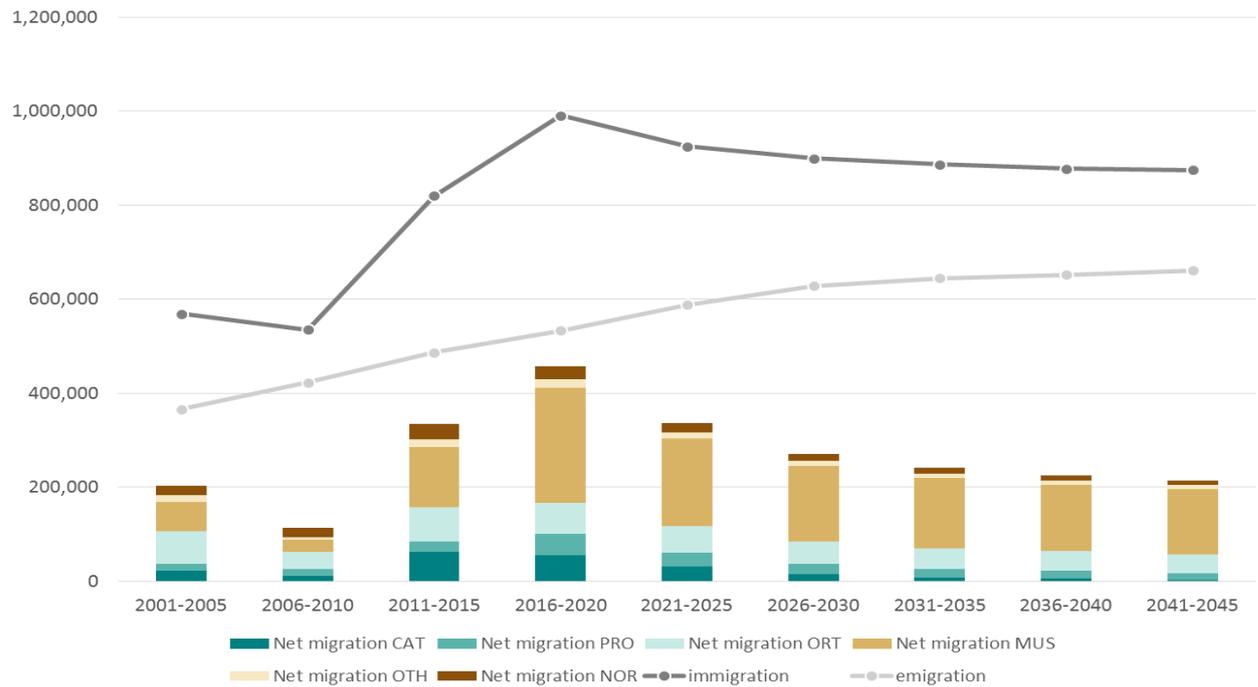
Migrants from SSA countries made up only a minority of immigrants to Austria in the past years; in 2015 mere 2% of all immigrants came from SSA countries. Recent studies, however, suggest that demographic trends and the demand for high- and low-skilled labour will continue to attract migrants from outside the EU and with a high chance that those migrants will come from increasingly geographically distant countries (de Haas 2011, p. S66). Sub-Saharan Africa's population is rising fast; the number of people in the region will likely have doubled by 2050 (Sippel et al. 2011, p. 6). Thus, a major development challenge in this region is the productive employment of the millions of youth who are entering the labour market. For that reason the region is likely to become one of the largest sources of potential emigration (Adepoju 2008, p. 54-55). Parallel to the increase in immigration, emigration constantly increases until 2045 in this scenario. Emigration is dominated by Europeans, and consequently the majority of emigrants, about 66%, belong to Christian religious groups.

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<sup>22</sup> The following list gives an overview about the countries included in the MENA region for this project, sorted by volume of immigration to Austria in the period 2011 to 2015: Syria, Turkey, Iran, Iraq, Egypt, Algeria, Morocco, Tunisia, Israel, Libya, Lebanon, Saudi Arabia, Jordan, United Arab Emirates, Palestine, Yemen, Kuwait, Oman, Qatar, and Bahrain.

<sup>23</sup> The following list is sorted by the volume of immigrants to Austria in the period 2011 to 2015, with the largest countries of origin first: Nigeria, Somalia, Ghana, South Africa, Gambia, Kenya, Sudan, Ethiopia, Cameroon, Democratic Republic of the Congo, Senegal, Guinea, Uganda, Eritrea, Sierra Leone, Congo, Côte d'Ivoire, Liberia, Angola, Zimbabwe, Mali, Guinea-Bissau, United Republic of Tanzania, Rwanda, Madagascar, Namibia, Benin, Burkina Faso, Togo, Niger, Mauritius, Gabon, Zambia, Malawi, Mozambique, Mauritania, Chad, Burundi, Réunion, Cape Verde, Seychelles, Swaziland, Botswana, Lesotho, Central African Republic, Equatorial Guinea, Djibouti, Western Sahara, Sao Tome and Principe, and Comoros.

Figure 26: Scenario High immigration migration to and from Austria



Source: Statistik Austria and authors' calculations

CAT = Roman Catholics, PRO = Protestants, ORT = Orthodox, MUS = Muslims, OTH = other religions, NOR = no religion

While the population in MENA region is overwhelmingly Muslim, sub-Saharan Africa is a patchwork of different religious traditions and many countries are more religiously diverse than those in Europe. Overall, the majority of the population in SSA countries, approximately 63%, is of Christian beliefs (PEW 2011), in particular of various Protestant denominations (36%, PEW 2011). Therefore, the increased immigration of African Christians may not necessarily boost the numbers of Roman Catholics or traditional Protestant churches established in Austria. In contrast, they have the potential to further diversify the religious landscape. A significant share of SSA's population is Muslim. This is particularly true for the major sending countries to Austria, which are Nigeria (49% Muslims in the population, PEW 2012) and Somalia (nearly 100% Muslims, PEW 2012)<sup>24</sup>.

Looking at net migrants (see Figure 26), the share of Muslim net migrants is projected to increase from 38% in 2011-2015 to 53% in 2016-2020; this share then increases further to 64% in 2041-2045. The overall share of Christian net migrants is projected to decrease from 47% (2011-2015) to 27% (2041-2045), whereby the different groups show different patterns: While the share of Protestants net migrants would remain stable by about 7% in 2041-2045 and the share of Orthodox net migrants would only decrease by about 3 percentage points

<sup>24</sup> It is important to point out that Islam is not a monolithic religion either and that Muslim immigrants originating from different countries may adhere to multiple Islamic traditions.

to 19% in 2041-2045, the share of Roman Catholics net migrants is projected to decrease strongly from 18% in 2011-2015 to only 1% in 2041-2045.

### *Vienna*

The high migration scenario of Statistik Austria determines not only high international immigration, but also a high volume of internal migration. As for the whole of Austria, this scenario for Vienna is characterised by high immigration from MENA<sup>25</sup> and SSA<sup>26</sup> countries.

Whereas international immigration to Vienna is projected to reach its peak in the period 2016-2020 and to steadily decrease thereafter, internal in-migration towards Vienna is projected to constantly increase from 2016 until 2045. In total, migration towards Vienna would peak in 2016-2020 (573,317), then drop until 2036-2040 (537,572) and then slightly rise again in 2041-2045 (540,679). In tandem with increased migration towards Vienna, emigration and out-migration are also characterised by a sharp increase compared with trends observed in the past (see Figure 27).

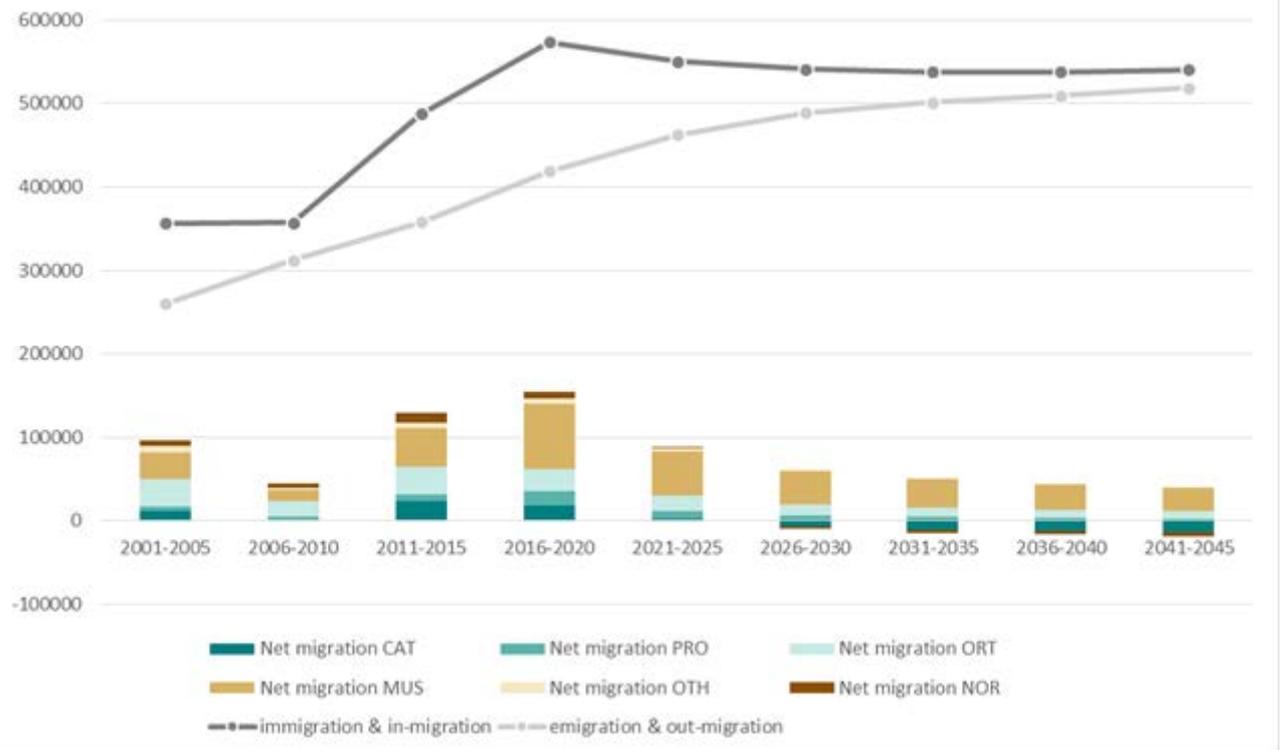
The largest net migration gain in this scenario can be attributed to Muslims, followed by the Orthodox group. While the share of Protestants would increase over the periods, the Roman Catholics and of the unaffiliated group are both projected to experience a net migration loss from 2026-2030 onwards.

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<sup>25</sup> The main countries of origin in the MENA region of migrants moving to Vienna were similar to the composition of those moving to Austria as a whole. MENA countries sorted by size of immigration to Vienna in the period 2011 to 2015: Syria, Turkey, Iran, Egypt, Algeria, Tunisia, Morocco, Palestine, Lebanon, Libya, Israel, United Arab Emirates, Saudi Arabia, Jordan, Yemen, Kuwait, Oman, Qatar and Bahrain.

<sup>26</sup> SSA countries sorted by the volume of immigration to Vienna in the period 2011 to 2015: Nigeria, Somalia, Gambia, Sudan, Kenya, Guinea, South Africa, Ghana, Democratic Republic of the Congo, Sierra Leone, Cameroon, Liberia, Senegal, Angola, Eritrea, Mali, Zimbabwe, Ethiopia, Guinea-Bissau, Uganda, Congo, Côte d'Ivoire, Rwanda, Togo, Madagascar, Niger, Mauritania, Burkina Faso, Benin, United Republic of Tanzania, Burundi, Gabon, Namibia, Chad, Malawi, Zambia, Cape Verde, Central African Republic, Mauritius, Botswana, Mozambique, Seychelles, Western Sahara, Comoros, Equatorial Guinea, Djibouti, Lesotho, Réunion, Sao Tome and Principe and Swaziland.

Figure 27: Scenario High immigration: Migration to and from Vienna



Source: Statistik Austria and authors' calculations

CAT = Roman Catholics, PRO = Protestants, ORT = Orthodox, MUS = Muslims, OTH = other religions, NOR = no religion

### 4.3. Fertility

Future fertility assumptions are a more stable component of the projection assumptions in comparison to more volatile migration. Moreover, fertility rates in Austria have been relatively unchanged in the past years and the postponement transition theory that applies to low fertility settings (Bongaarts and Sobotka 2012; Sobotka 2004) suggests that we can expect either a mild fertility increase or a levelling off of the TFR at about the current level in the foreseeable future.

Fertility assumptions consist of the outlook on the future TFR levels, and on how different or similar we think the differences in fertility of religious groups will unfold. As for the fertility levels in whole Austria, we follow a single scenario that is identical to the main scenario in the latest population projection of Statistik Austria. Out of the three fertility scenarios that Statistik Austria prepared for their population projections, the main scenario (Hauptvariante) best reflects the above stated hypothesis about future fertility<sup>27</sup>.

Our three fertility scenarios – slow, fast convergence and trend scenario – differ in the pace of convergence in TFRs across the religious groups. These scenarios are detailed below.

Religion-specific fertility rates are crucial in the projection as they generate number of births by religion in interaction with the age and religious composition of the women in reproductive age. Young adults can later change their religious affiliation and religion-specific migration, and mortality further alters initial religious composition of the newborns.

#### 4.3.1. Austria

In the main scenario of Statistik Austria, which we are following in our projection, *the overall TFR* slowly increases to 1.60 children per woman in 2100, an increase of 0.15 over more than 50 years. In 2041-2045, which is the latest projected period, an increase to 1.56 children to woman is expected.

The future TFRs of women in the six religious groups are derived from the overall target TFRs for all women in Austria and assumptions on the pace of fertility convergence. In practice we anchored religion-specific TFR to the overall target TFR level through the ratio (religion-specific TFR / overall TFR) and we let the ratio converge to 1 (identical TFR across all religions) at different time horizons. In the fast convergence scenario (*Low immigration*) we assume the same TFRs for all women as early as 2046-2050; in scenarios *European mobility* and *Diversity*, in 2071-2075; and in scenario *High immigration*, slow convergence applies and the ratio reaches 1 in 2100. We do not assume fertility divergence as the past trends speak for narrowing fertility differentials.

For the fertility rates of Muslims we made one modification. Fertility in this group is largely driven by the reproductive behaviour of foreign-born women, who are majority. As we further show in the discussion section, foreign-born Muslim women have much higher fertility rates compared to native-born Muslims. Very importantly, research consistently shows that immigrants who have recently arrived to the country tend to have high fertility rates in the first years upon arrival (Wolf 2014; Toulemon 2004). This is because couples tend to postpone childbearing to after migration and have the children they intended to have once they settle in the new country, but also because some female

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<sup>27</sup> The other two fertility scenarios are more hypothetical and illustrate what would happen if TFRs in Austria increased to replacement level (around 2 children) by 2100 (Fertilitätsvariante) or what would happen if the TFRs declined to mere 1.1 children per woman by 2100 (a level never recorded in Austria previously even during the initial stages of fertility postponement that generally leads to suppressed TFR; Alterungsszenario).

immigrants arrive to the country through family reunification to join their husbands and newly married couples tend to have children in the first years after marriage. Austria has witnessed significant numbers of newly arrived young Muslim immigrants, especially among the asylum seekers, in 2015 and 2016. Therefore we think that the increased numbers of Muslim women in 2011-2015 have depressed overall Muslim TFR to 2.26 children per women in 2011-2015 period. TFR is a measure sensitive to abrupt changes in the size or composition of women of childbearing age and with sudden increase in female population TFR would decline not because reproductive behaviour of women changes, but purely because of the change in the size of female population (see more detailed explanation in the Fertility –data and method section). To test the effect of the size of the female population on the TFR for this period, we have computed a hypothetical value. In this computation birth to Muslim women in 2011-2015 are related to Muslim women of childbearing age who were resident in Austria and we excluded immigrant Muslim women who arrived during 2011-2015. In the absence of migration, the TFR of Muslim women would be 2.53 children per woman for the same period, compared to 2.26 children if we also include recent immigrants. Because it is likely that these newly arrived women will have children in the following years, the TFR of Muslims in Austria can actually increase in the near future and we model this for the first projection period 2016-2020. Therefore, we have adjusted the initial TFR for Muslim women in 2011-2015 in the projections to the hypothetical one that is an average of the observed value (2.26) and the one in the absence of migration (2.53). The value stands at 2.4 for Austria and we use this value to model the fertility differential to the overall TFR in our scenarios. This results in temporary fertility increase followed by decline through convergence towards the overall fertility through naturalization and increased share of native-born Muslim women in the later projection years. As a result, TFR of Muslims bounces upwards in 2016-2020 and subsequently declines in all fertility scenarios.

As mentioned previously, the recent increase in TFR in Austria is linked to the recuperation – a catching up effect that results in increasing fertility among women 30+. The main fertility scenario of Statistik Austria that we have adopted expects this trend to continue. Therefore, we are modelling this postponement effect in two of our scenarios – the fast convergence and trend scenario – by converging fertility age pattern towards the oldest observed one in 2011-2015 period. Consequently, fertility curves converge to those of Protestant women and for protestant women, the age pattern stays the same as in 2011-2015. In the slow convergence scenario the fertility age pattern stays as in 2011-2015.

To sum up, the three fertility scenarios use the same target TFR values for the whole of Austria and they differ in the pace of fertility convergence. The convergence assumption results in fertility decline among Muslims, and fertility increase for all other religious groups.

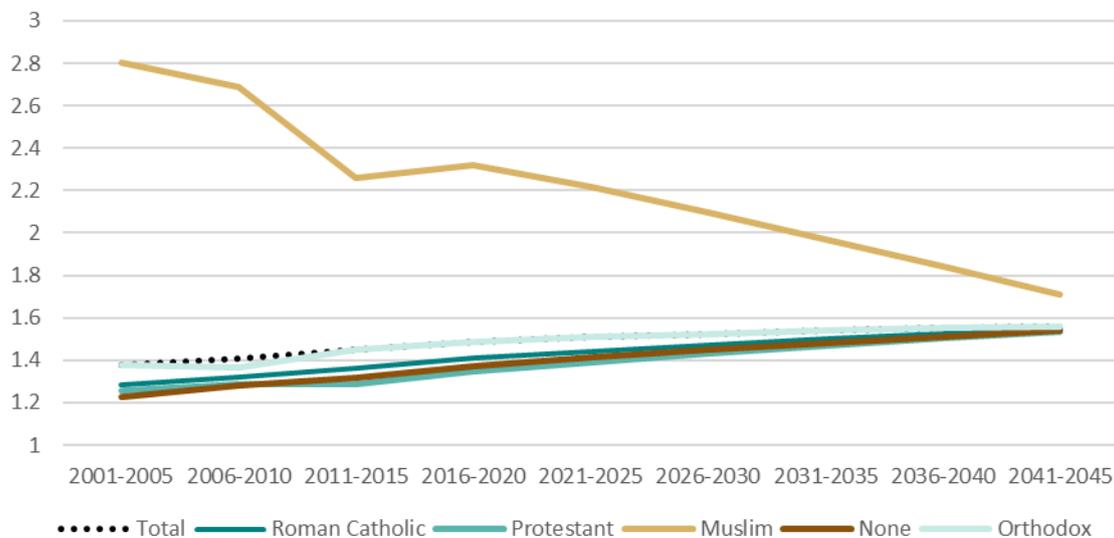
**Fast convergence scenario** results in lowest fertility levels for Muslims and highest TFRs for other religious groups. It is linked to the *Closed border* scenario. In this scenario fewer new immigrants arrive to Austria by 2016 compared to other scenarios, and even from within them, a larger share arrives from low fertility countries. With fewer new immigrants, and significantly fewer from predominantly Muslim societies, and a higher

share of native-born Muslims, the TFR of Muslims declines at the most rapid pace to 1.71 children per woman in 2041-2045 (Figure 28). In spite of the initial increase due to increased numbers of births to the Muslim immigrants who arrived in 2011-2015, the TFR of Muslim reaches the replacement level in 2026-2031.

**Slow convergence scenario** is paired with high immigration scenario in Austria. In this narrative high numbers of immigrants keep arriving in the following years and among them, the share of Muslims is highest compared to the other scenarios. Moreover, some of the sending countries of Muslim immigrants are among the high fertility ones. Consequently, fertility rates of Muslims remain way above the replacement level by 2050, as they are fuelled by increased fertility of the new immigrants with preference for larger families. Muslim TFR increase remains at about 2.4 until 2025, and then slowly declines to 2.22 in 2041-45 (i.e. only a little bit below the 2011-2015 level). Fertility increases slightly among predominantly native-born women of Roman Catholic and Protestant faith and among the unaffiliated, but remains at about 1.5 children per woman by 2050 (see Figure 29).

**Medium convergence scenario** is linked to the medium migration scenarios (scenario *European mobility* and scenario *Diversity*). Fertility rates for the religious groups are in between the two more extreme scenarios. Fertility of Muslim women first increases to almost 2.4, and then declines more rapidly compared to the previous scenario. It drops below the replacement level 2041-2045 (2.04). TFR of Roman Catholic women rises up to 1.53 children per woman, with the TFRs of unaffiliated (1.51) and Protestant women (1.50) at a very similar level. Thus, due to small differences in fertility among the Christian groups and the unaffiliated, only Muslim women stand out in all scenarios (see Figure 30).

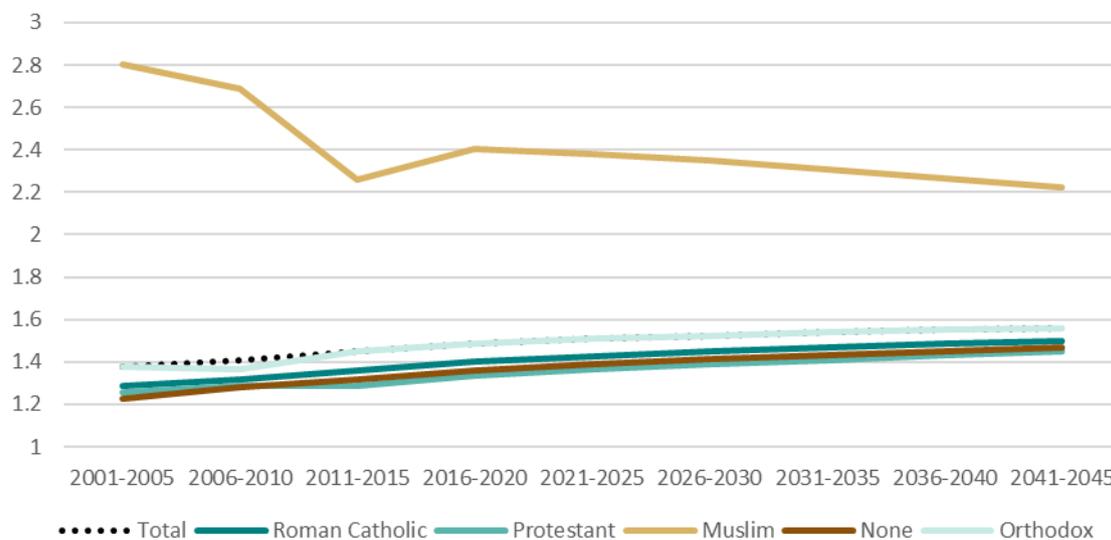
Figure 28: TFRs for the religious groups in Austria according to the Fast convergence scenario



Source: authors' calculations; Note: The TFR of women with Other religions is not represented in the figure as its residual nature leads to an irregular pattern of change.

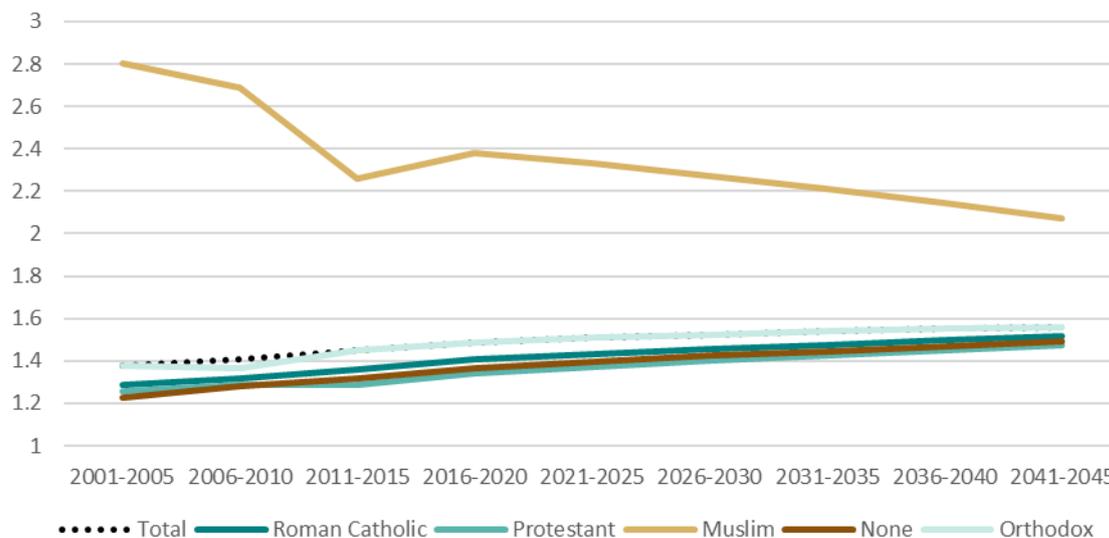


Figure 29: TFRs for the religious groups in Austria according to the Slow convergence scenario



Source: authors' calculations; Note: The TFR of women with Other religions is not represented in the figure as its residual nature leads to an irregular pattern of change.

Figure 30: TFRs for the religious groups in Austria according to the Medium convergence scenario



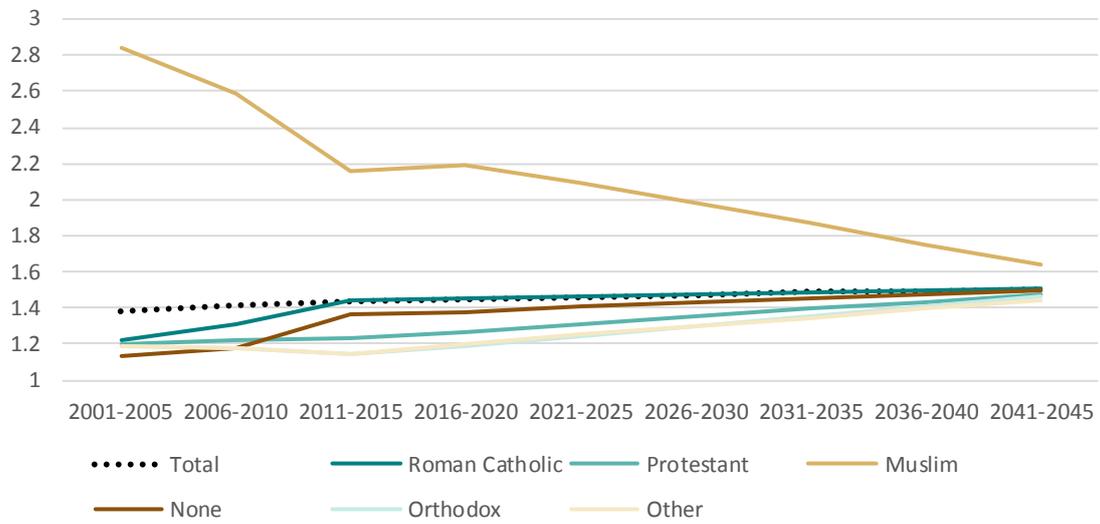
Source: authors' calculations; Note: The TFR of women with Other religions is not represented in the figure as its residual nature leads to an irregular pattern of change.

#### 4.3.2. Vienna

For the Federal States the population projection of Statistik Austria considers only the main fertility scenario and the TFR in Vienna is expected to increase to 1.55 children per woman in 2100. The expected future TFRs for the respective religious groups were generated in the same way as for Austria, just using different target values. The same modification was made to model Muslim TFRs. In Vienna the observed TFR in 2011-2015 was 2.16 and this was replaced by the hypothetical one without migration, which was at 2.45 children per woman. The average of 2.30 was used for the convergence scenarios. The same procedure was applied to take into account the ageing of fertility pattern, and again the schedule for Protestant women was adopted.

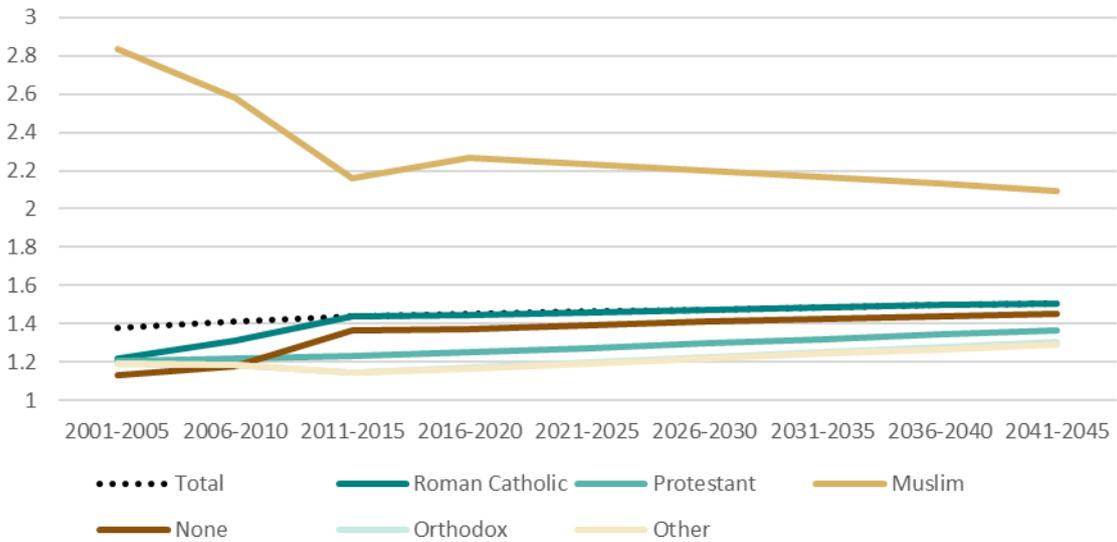
The three fertility scenarios with differing convergence assumptions follow the same logic as explained earlier for Austria. However, due to initial differences we can see a larger disparity between the fertility of Protestant and Roman Catholic and unaffiliated women (see Figure 31, Figure 32 and Figure 33). The fertility of Muslim women in Vienna increases only slightly in 2016-2020 in the fast convergence scenario, and falls below the replacement level already in 2021-2025 in the fast convergence, in 2031-35 in the trend scenario, and in 2041-45 in the slow convergence alternative.

Figure 31: TFRs for the religious groups in Vienna according to the Fast convergence scenario



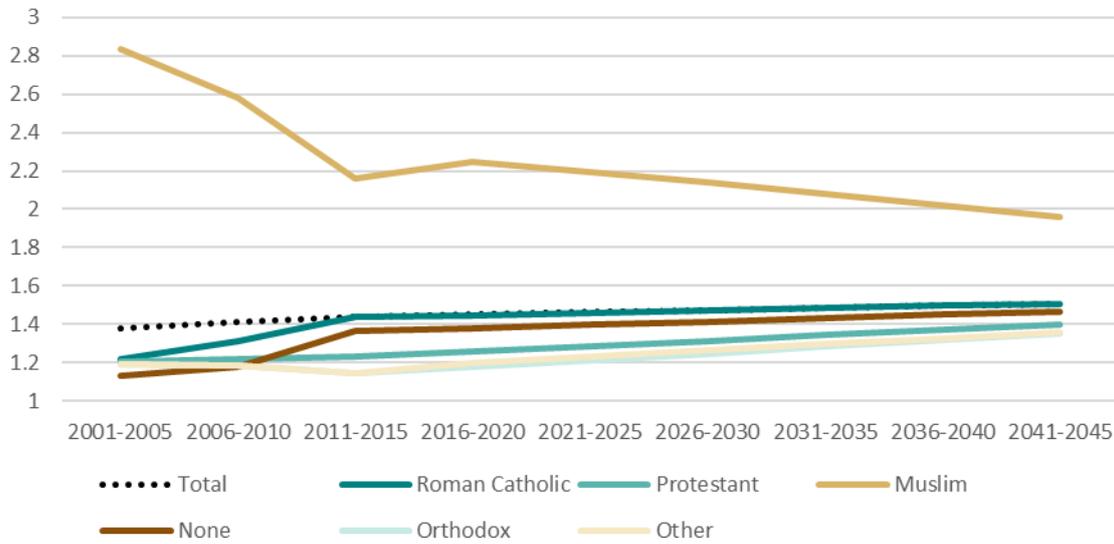
Source: authors' calculations

Figure 32: TFRs for the religious groups in Vienna according to the Slow convergence scenario



Source: authors' calculations

Figure 33: TFRs for the religious groups in Vienna according to the Medium convergence scenario



Source: authors' calculations

#### 4.4. Secularisation

Secularisation rates were estimated for 2011-2015 based on the available data. In the scenarios *European mobility* and *Diversity*, we assume that the secularisation rates remain constant until the end of the projection period, whereas in the low secularisation scenario (applied in scenario *High immigration*), we assume a general decrease (-10% per period) until 2026-31, and then the rates stay constant. In the high secularisation scenario (implemented under scenario *Low immigration*), we assume a general increase (+10% per period) until 2026-2031 and then the rates are kept constant until the end of the projection period. These assumptions are also applied to the secularisation rates of Orthodox and Muslim population.

#### 4.5. Mortality

Another component of the projections to 2046 is age-and sex-specific mortality from 2016 to 2046. Mortality is based on the medium scenario of Statistik Austria, whereby life expectancy at birth increases to 84 years for men and 88 years for women by 2041-2045. Mortality is the same across all scenarios.

## 5. Results

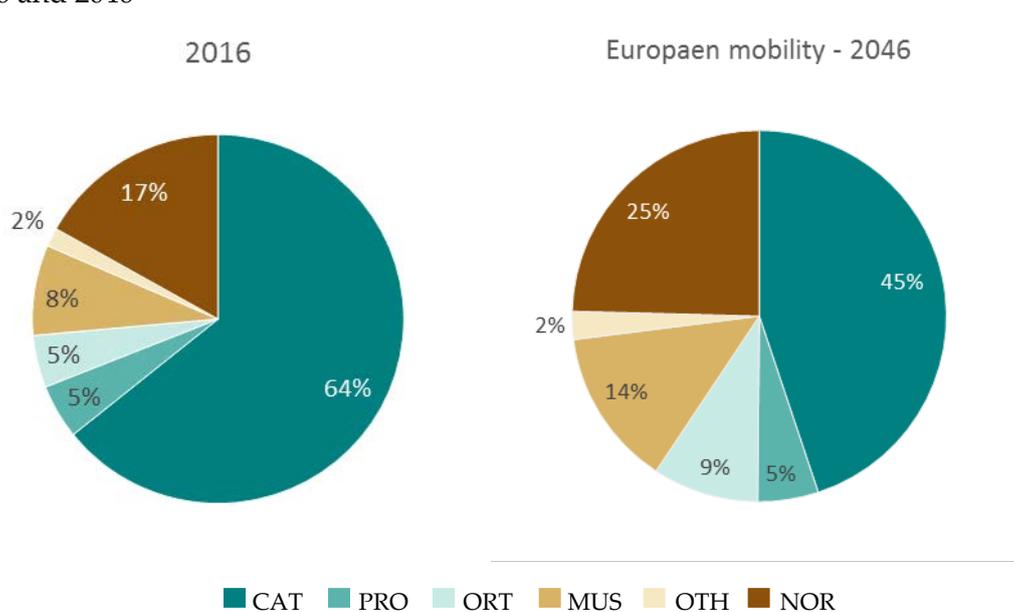
### 5.1. European Mobility Scenario

#### 5.1.1. Austria

Scenario *European mobility* illustrates a future in which migration processes return to past trends that were observed in the years 2006 to 2010, when migration flows were mainly composed of Europeans. Concerning other drivers of religious change, the scenario assumes medium secularisation and medium fertility.

Compared with 2016, the share of Roman Catholics would decrease from 64% to 45% in 2046 primarily due to the declining share in net-migration as well as continuing secularisation. In parallel, the group of the religiously unaffiliated would increase from 17% in 2016 to 25% in 2046. Both the share of Muslims (from 8% to 14%) and the share of Orthodox (from 5% to 9%) would grow in this scenario, while the share of Protestants (5%) and Others (2%) would remain constant (see Figure 34).

Figure 34: Scenario European mobility: Religious distribution of Austria's population in 2016 and 2046



Source: Statistik Austria and authors' calculations

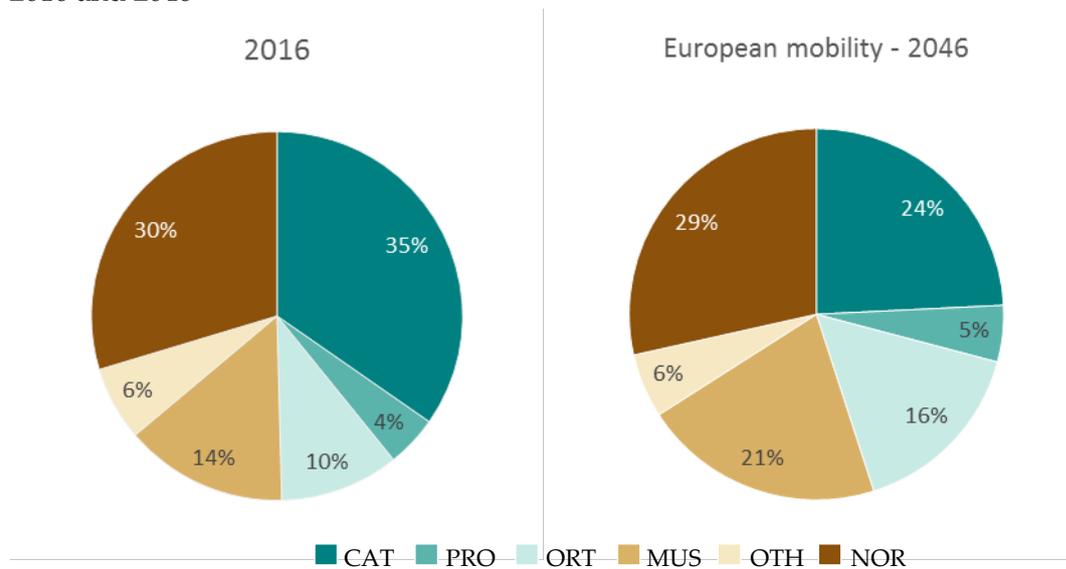
CAT = Roman Catholics, PRO = Protestants, ORT = Orthodox, MUS = Muslims, OTH = other religions, NOR = no religion

#### 5.1.2. Vienna

This scenario refers to a situation where international migration flows are mostly composed of migrants from the European Union. Despite the predominantly European immigration flow, the share of Roman Catholics in the Viennese population is projected to decline to 24% in 2046 primarily due to the declining share in net-migration as a result of

increasing outward movement from Vienna. The share of the population who is unaffiliated would decrease slightly to 29% as both a result of the migration of the unaffiliated and the saturation of secularisation. The share of the Muslims is projected to increase to 21% and that of the Orthodox to 16% in 2046. The results of this scenario are summarized in Figure 35.

Figure 35: Scenario European mobility: Religious distribution of Vienna's population in 2016 and 2046



Source: Statistik Austria and authors' calculations

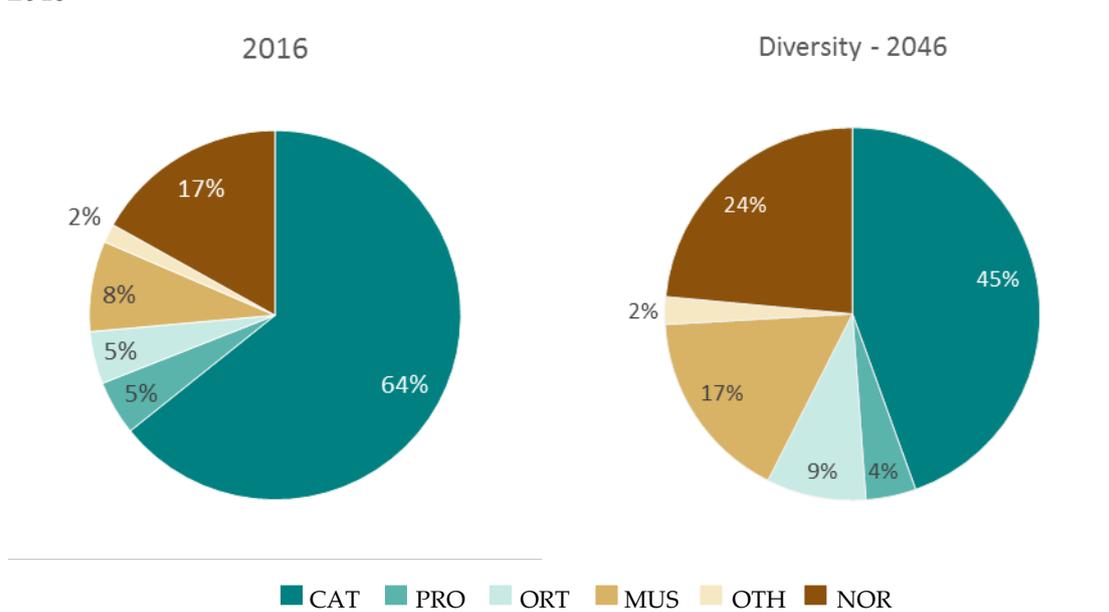
CAT = Roman Catholics, PRO = Protestants, ORT = Orthodox, MUS = Muslims, OTH = other religions, NOR = no religion

## 5.2. Diversity scenario

### 5.2.1. Austria

Scenario *Diversity* takes into account current trends of migration processes that are characterised by a strong non-European component. Just as scenario *European mobility*, scenario *Diversity* assumes medium secularisation and medium fertility. Figure 36 shows that the Roman Catholics would experience a strong decline from 64% in 2016 to 45% in 2046, while again the share of Protestants would decline only from 5% to 4%. The biggest increase once again would be attributed to the Muslims; their share would rise from 8% in 2016 to 17% in 2046. Compared to other religious groups, the religiously unaffiliated register the second-largest increase from 17% to 24%. The share of Orthodox would rise also from 5% to 9%. The share of Others would remain stable with 2%.

Figure 36: Scenario Diversity: Religious distribution of Austria's population in 2016 and 2046



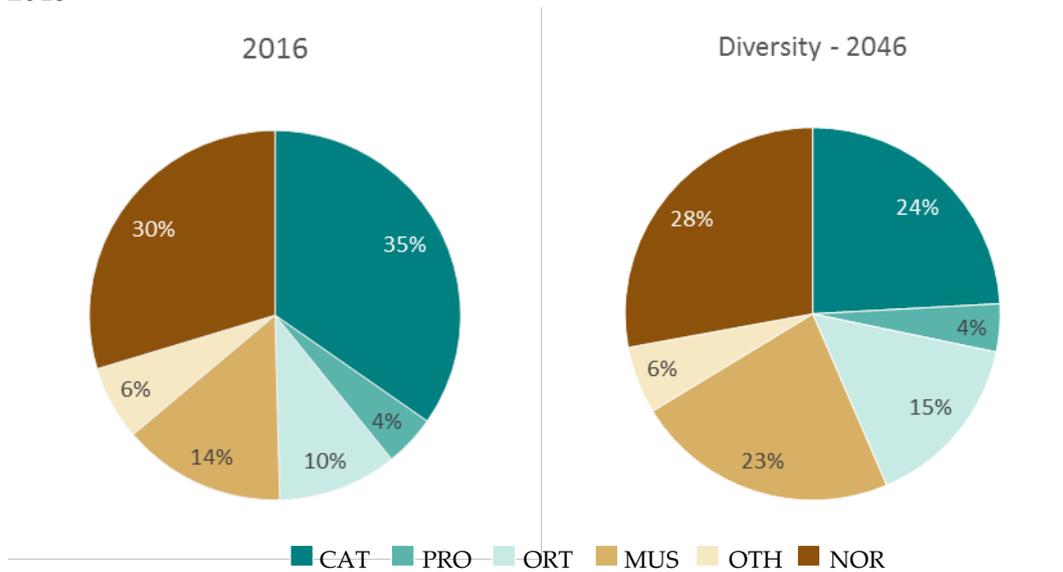
Source: Statistik Austria and authors' calculations

CAT = Roman Catholics, PRO = Protestants, ORT = Orthodox, MUS = Muslims, OTH = other religions, NOR = no religion

### 5.2.2. Vienna

This scenario is particularly interesting in the sense that it shows the sensitivity of the projections to migration, especially the effect of the reference period as a basis for projecting migration trends. When we take into consideration the trend that was observed in the last five years – with a large share of migrants arriving from countries outside of the EU – we see that while this would not affect much the share of the Roman Catholics and the unaffiliated, it would change considerably the share of the Viennese population with a Muslim affiliation: 23% in 2046 compared to 21% in scenario *European mobility* and to 14% in 2016. The share of the Orthodox would increase by about 5 percentage points to 15% in 2046 (see Figure 37)

Figure 37: Scenario Diversity: Religious distribution of Vienna's population in 2016 and 2046



Source: Statistik Austria and authors' calculations

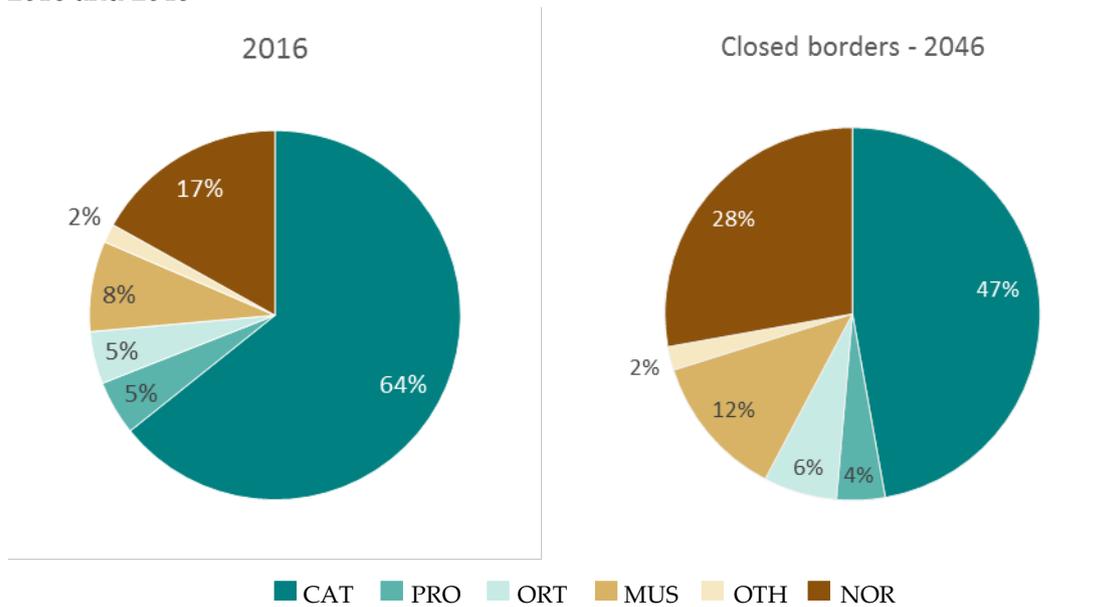
CAT = Roman Catholics, PRO = Protestants, ORT = Orthodox, MUS = Muslims, OTH = other religions, NOR = no religion

### 5.3. Low Immigration Scenario

#### 5.3.1. Austria

Scenario *Low immigration* is based on the idea that international migration comes to halt by 2021 as Austria closes its border. Such a scenario means that changes in the religious landscape are foremost attributed to secularisation and fertility assumptions. The scenario assumes strong secularisation, diminishing fertility differentials and fast decline of Muslim fertility below the replacement level. Figure 38 illustrates the development of the religious composition of Austria's population under these assumptions. In comparison with 2016, the highest proportional increase would be attributed to No Religion (from 17% to 28%), while the strongest decrease would be seen for Roman Catholics (from 64% to 47%). This scenario features, on the one hand, the lowest decline in the share of Roman Catholics across all the four scenarios and, on the other hand, the lowest increase of population with a Muslim or Orthodox affiliation: The share of Muslims would increase from 8% to 12% and the share of Orthodox would rise from 5% to 6%. The share of Protestants decreases slightly from 5% to 4%; the share of Others remains stable with 2%.

Figure 38: Scenario Low immigration: Religious distribution of Austria's population in 2016 and 2046



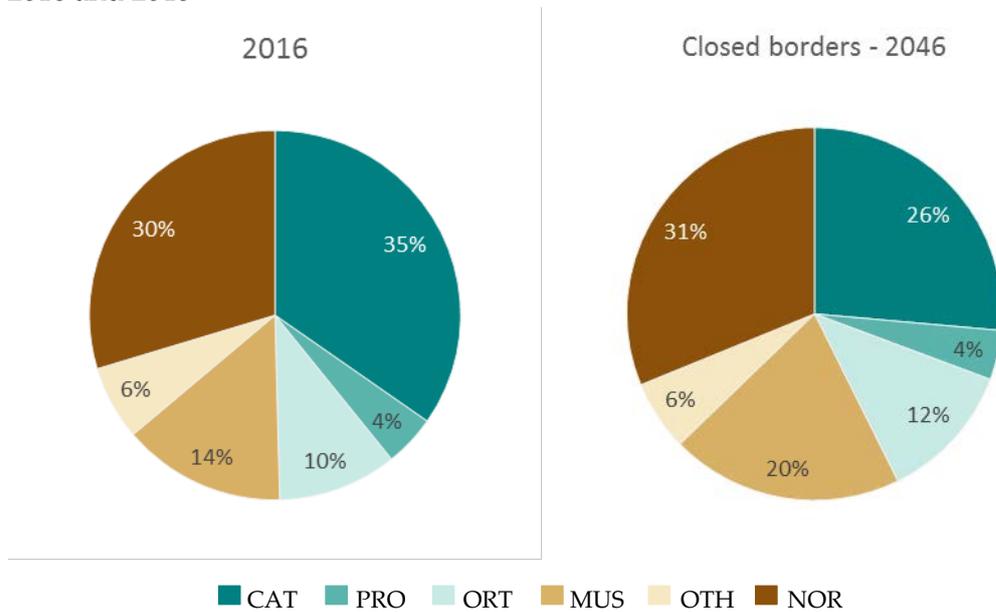
Source: Statistik Austria and authors' calculations

CAT = Roman Catholics, PRO = Protestants, ORT = Orthodox, MUS = Muslims, OTH = other religions, NOR = no religion

### 5.3.2. Vienna

According to this scenario, which reduces international migration to Austria substantially, the population in Vienna would be the lowest among all scenarios, and it would be the closest to the present one in terms of distribution by religion. The secularisation trend would still affect the Roman Catholic group, which would decline to 26% in 2046 (from 35% in 2016) (see Figure 39). The group of unaffiliated would increase to 31%. The increase is not as important as expected because many inhabitants of Vienna who become unaffiliated also move out of Vienna to other Federal States. As for Austria, this scenario shows the lowest increase in terms of population with a Muslim affiliation, with 20% in 2046 (from 14% in 2016); the same is true for the Orthodox, their share increases to 12% of the Viennese population in 2046 (from 10% in 2016).

Figure 39: Scenario Low immigration: Religious distribution of Vienna's population in 2016 and 2046



Source: Statistik Austria and authors' calculations

CAT = Roman Catholics, PRO = Protestants, ORT = Orthodox, MUS = Muslims, OTH = other religions, NOR = no religion

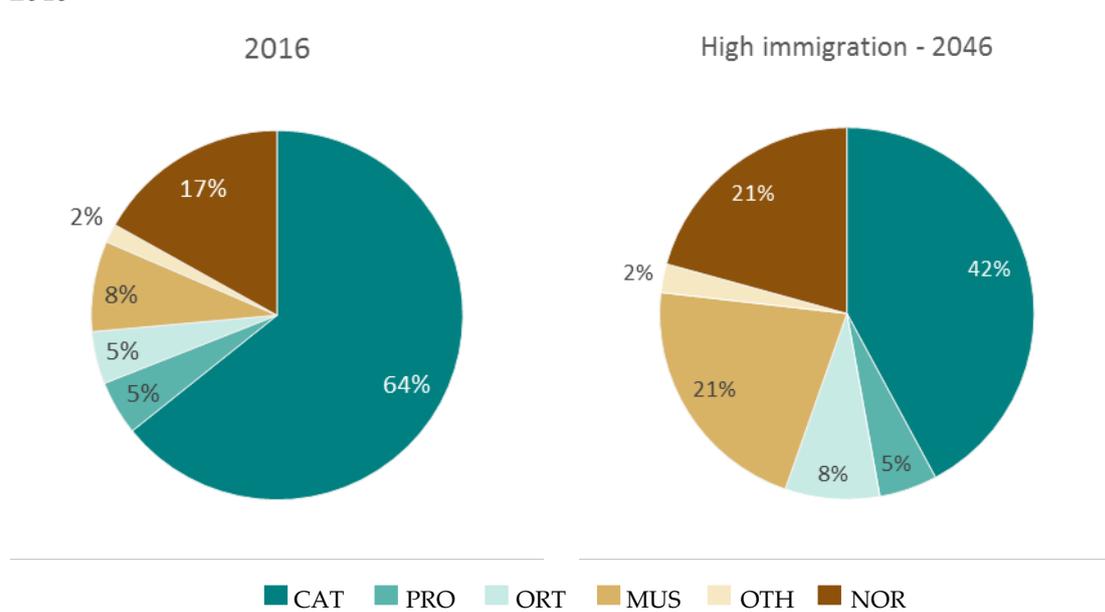
## 5.4. High Immigration Scenario

### 5.4.1. Austria

*High immigration* scenario depicts a future in which the population growth is characterised by high international migration flows, especially from the Middle East and North Africa and from sub-Saharan countries. High immigration from the countries with generally less secularised societies compared to Austria leads to higher levels of religiosity and to a trend reversal in secularisation. Due to constant influx of high volumes of new migrants, many of whom come from high-fertility countries, the scenario only slowly assumes converging fertility levels and fertility of Muslims remains above replacement until 2046.

Under these assumptions, Austria would see a rapid increase of Muslim population as the share of Muslims increases from 8% in 2016 to 21% in 2046 (see Figure 40). The reasons lie in the positive net-migration and the relatively high fertility. The share of Roman Catholics would decline strongly from 64% in 2016 to 42% in 2046, while the share of Protestants would remain stable by 5%. Both the share of unaffiliated (from 17% to 21%) and Orthodox (from 5% to 8%) would rise. The share of Others would remain constant by about 2%.

Figure 40: High immigration: Religious distribution of Austria's population in 2016 and 2046



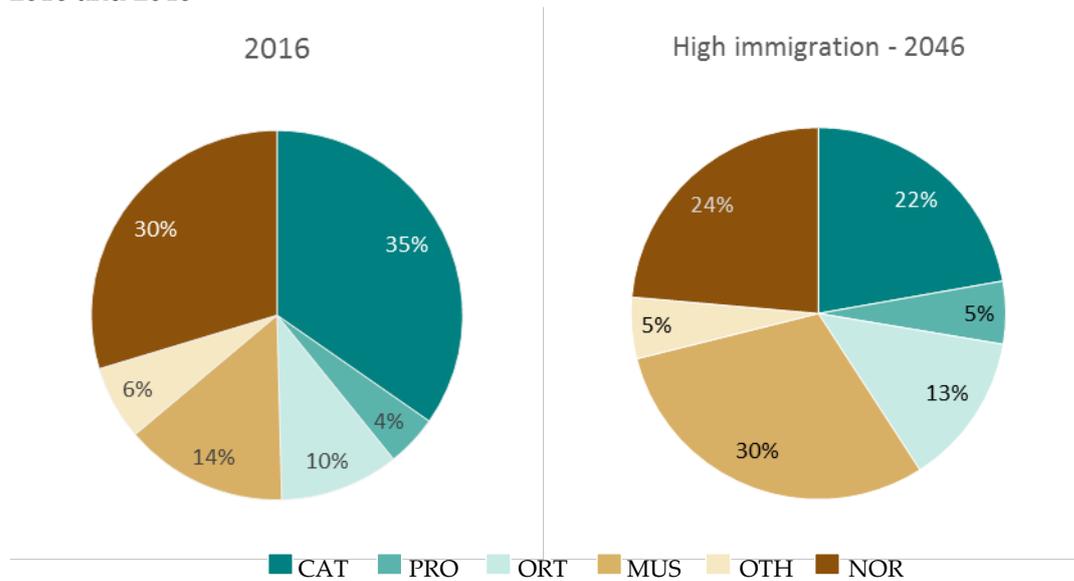
Source: Statistik Austria and authors' calculations

CAT = Roman Catholics, PRO = Protestants, ORT = Orthodox, MUS = Muslims, OTH = other religions, NOR = no religion

#### 5.4.2. Vienna

Vienna, a city attracting the most international migrants coming to Austria, would increase importantly in size under this scenario and would have around 2.4 million inhabitants by 2046. The share of Muslims is projected to increase from 14% in 2016 to 30% – the highest increase across the four scenarios. While the share of Roman Catholics would decrease in this scenario from 35% in 2016 to 22% in 2046, the share of Protestants (from 4% to 5%) and of Orthodox (from 10% to 13%) is projected to increase. The expected higher levels of religiosity would lead to a trend reversal in secularisation, resulting in a decline of the unaffiliated by about 6 percentage points (from 30% in 2016 to 24% in 2046). The share of Others would slightly decrease from 6% to 5%. Figure 41 summarizes the development of the religious composition of Vienna's population under the assumptions made.

Figure 41: Scenario High immigration – Religious distribution of Vienna’s population in 2016 and 2046



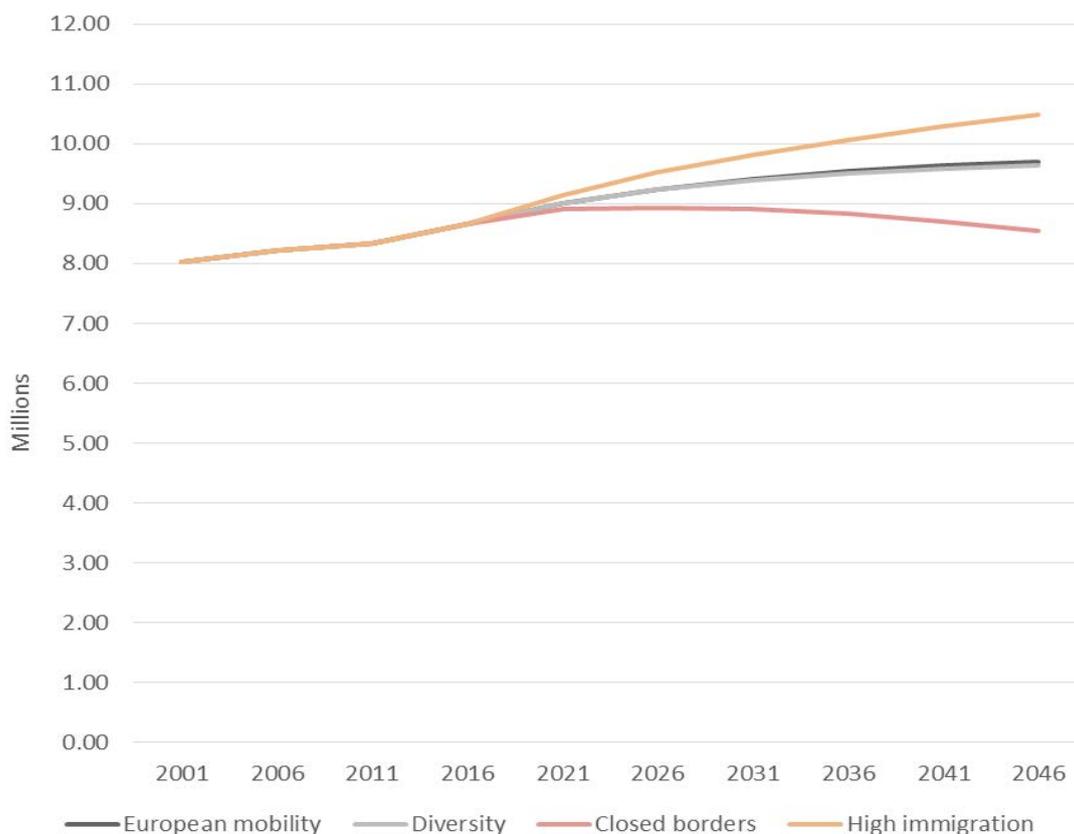
Source: Statistik Austria and authors’ calculations

CAT = Roman Catholics, PRO = Protestants, ORT = Orthodox, MUS = Muslims, OTH = other religions, NOR = no religion

## 6. Austria: Summary

The projected future population size varies significantly across the four scenarios (see Figure 42). In *Low immigration* scenario the population of Austria is shrinking after 2026 as a result of limited international migration flows. In contrast, the population increases by almost 21% between 2016 and 2046 in *High immigration* scenario, which assumes the largest net migration and highest fertility with no convergence among the religious groups. In the scenarios *European mobility* and *Diversity*, Austria’s population would increase by about 12%-11% until 2046. According to our estimates, the population would range between 8.5 million in *Low immigration* scenario and 10.5 million in *High immigration* scenario. In the latter large movements of migrants from MENA and SSA countries would arrive to Austria and significantly diversify the religious landscape of Vienna in particular.

Figure 42: Austria -- Total population 2001-2046 according to the four scenarios



	2001	2006	2011	2016	2021	2026	2031	2036	2041	2046
European mobility	8,020,946	8,219,790	8,337,812	8,662,193	8,996,222	9,234,942	9,409,825	9,538,568	9,633,184	9,704,503
Diversity	8,020,946	8,219,790	8,337,812	8,662,193	8,996,228	9,230,351	9,394,325	9,507,877	9,586,560	9,642,689
Low immigration	8,020,946	8,219,790	8,337,812	8,662,193	8,918,466	8,936,854	8,911,868	8,832,551	8,705,184	8,546,064
High immigration	8,020,946	8,219,790	8,337,812	8,662,193	9,140,802	9,515,909	9,818,199	10,068,714	10,283,757	10,476,283

Source: Statistik Austria and authors' calculations

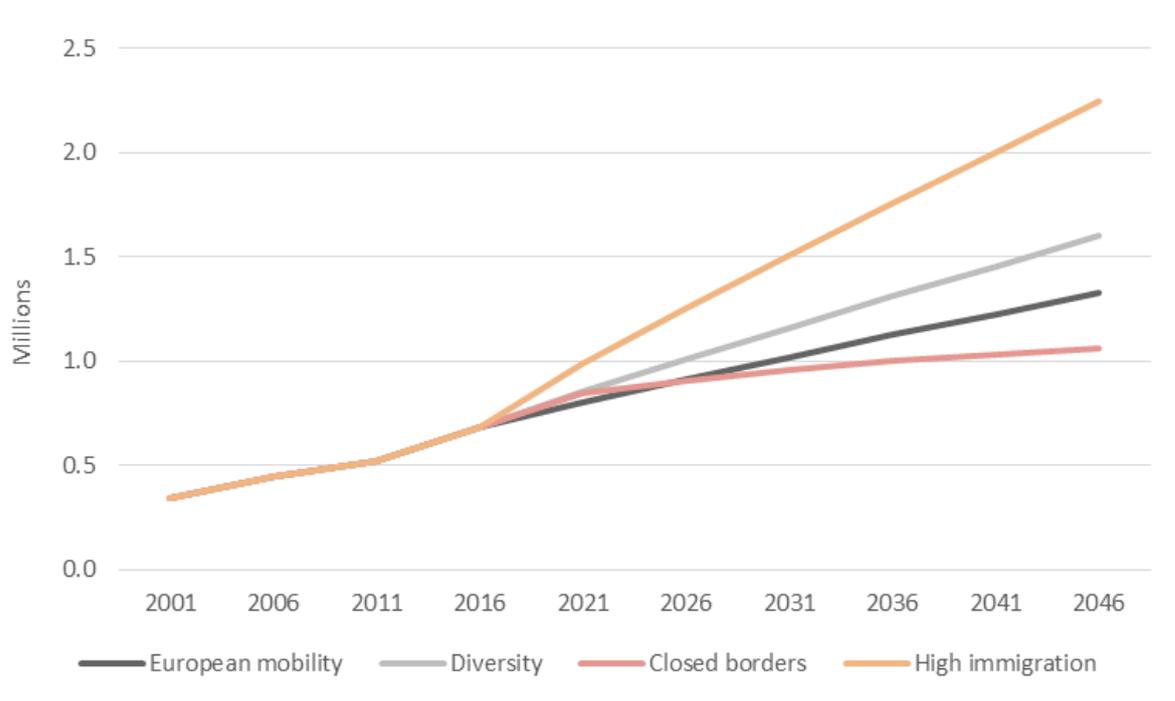
One interesting aspect is that the total population number is higher in the scenario *European mobility* than in *Diversity* scenario, where migration is more strongly driven by non-European migration flow and Muslim migrants respectively. At first glance, this seems somewhat surprising given that fertility of Muslim women is higher compared to native women, but looking in more detail we see that European migration – based on the trend observed in the period 2006-2010 – is predominately female resulting in higher numbers of births.

It is not surprising that our results do not differ much from those of the Statistik Austria (2016), since their assumptions serve as basis for ours on the volume of migration,

level of fertility and future mortality. However, the differences point out the importance of population composition, and highlight especially the consequences of the composition of migration flows.

Not just the overall population size differs in the four scenarios, but also the size of the religious groups. To give an example, different trajectories of the projected size of Muslim population in all four scenarios are depicted in Figure 44 and can be compared to the trends for the overall population size in Figure 43. Based on the assumptions made, we find on one end of the spectrum values for the *Low immigration* scenario with the smallest Muslim population that would not exceed 12% of the total population in 2046, and on the other end *High immigration* with the highest number and share of Muslim population as a result of the projected increase of immigrants from MENA and SSA countries (21% in 2046). The size of Muslim population would range between 1.1 million and 2.2 million. Table 3 provides the results for the other scenarios in terms of distribution of all religious groups. Apart from Muslims, most affiliations are influenced less substantially by the projections, as can be seen from the share of the Roman Catholics (within a range of 42-47% in 2046) and the unaffiliated (within a range of 21-28% in 2046) depending on the scenario.

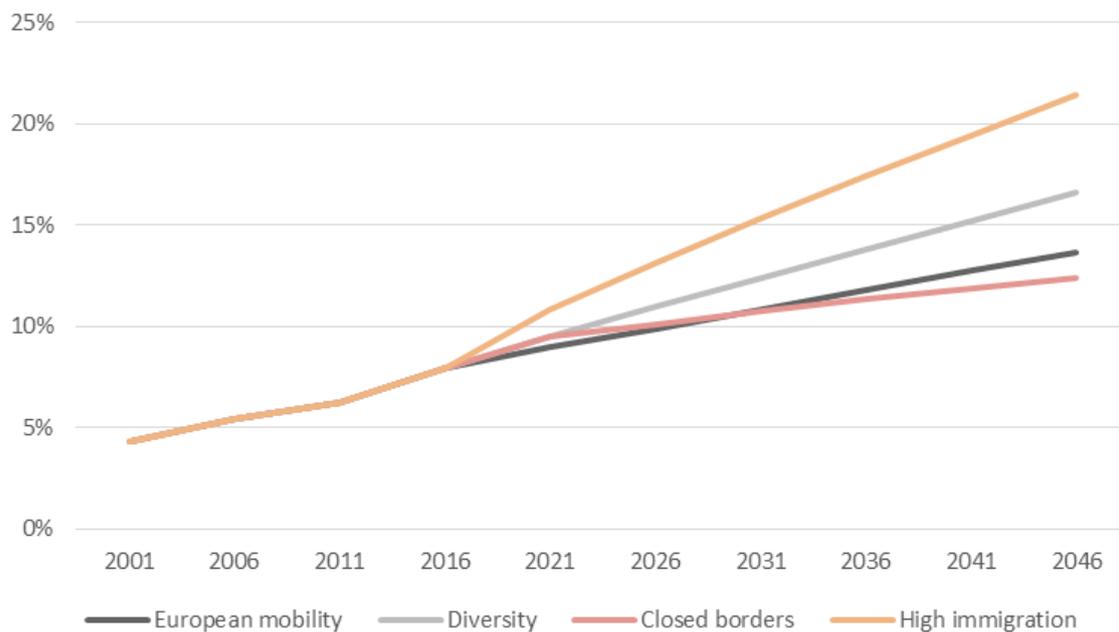
Figure 43: Austria – Absolute numbers of Muslims 2001-2046 according to the four scenarios



	2001	2006	2011	2016	2021	2026	2031	2036	2041	2046
European mobility	346,502	447,596	518,615	686,599	805,769	915,384	1,021,156	1,125,242	1,227,292	1,327,723
Diversity	346,502	447,596	518,615	686,599	855,689	1,011,812	1,162,264	1,310,624	1,457,837	1,605,198
Low immigration	346,502	447,596	518,615	686,599	846,931	90,5791	957,500	1,000,887	1,035,664	1,062,201
High immigration	346,502	447,596	518,615	686,599	988,047	1,253,427	1,506,985	1,755,541	2,000,611	2,247,777

Source: Statistik Austria and authors' calculations

Figure 44: Austria – Share of Muslim population according to the six scenarios



	2001	2006	2011	2016	2021	2026	2031	2036	2041	2046
European mobility	4%	5%	6%	8%	9%	10%	11%	12%	13%	14%
Diversity	4%	5%	6%	8%	10%	11%	12%	14%	15%	17%
Low immigration	4%	5%	6%	8%	9%	10%	11%	11%	12%	12%
High immigration	4%	5%	6%	8%	11%	13%	15%	17%	19%	21%

Source: Statistik Austria and authors' calculations

Results in Table 3 show interesting differences in the religious composition across different ages. This is because migrants are usually younger and more religiously diverse than the resident population and we can expect an increased share of young adults (20-34) among them. Therefore, religious groups with a strong migrant component have a younger population. If we look at population younger than 20 years, we can see that the share of persons aged 0-19 is higher among Muslims compared to the total population: 21-25% in *European mobility* and *Diversity*, compared to 14-17% among the total population. This is a result of migration as well as higher fertility of Muslims compared to other groups. In contrast, the share of elderly people (65+) is higher among the Roman Catholics compared with the other religious groups. We can say that Muslims are the youngest and Roman Catholics the oldest religious groups in terms of their age composition.

Table 3: Religious distribution of Austria's population by broad age groups in 2016 and 2046 according to the different scenarios

		CAT	PRO	ORT	MUS	OTH	NOR
2016	Total Population	64%	5%	5%	8%	2%	17%
	0-20	62%	4%	6%	15%	2%	10%
	20-64	60%	4%	5%	9%	2%	21%
	65+	70%	7%	2%	2%	1%	19%
2046 - European mobility	Total Population	45%	5%	9%	14%	2%	25%
	0-20	39%	5%	12%	21%	3%	20%
	20-64	39%	4%	9%	16%	2%	29%
	65+	58%	7%	4%	6%	1%	23%
2046 - Diversity	Total Population	45%	4%	9%	17%	2%	24%
	0-20	38%	4%	11%	25%	3%	19%
	20-64	37%	3%	9%	22%	2%	27%
	65+	58%	7%	4%	7%	1%	23%
2046 - Low immigration	Total Population	47%	4%	6%	12%	2%	28%
	0-20	45%	3%	7%	17%	2%	25%
	20-64	39%	3%	7%	16%	2%	34%
	65+	57%	7%	4%	7%	1%	23%
2046 - High immigration	Total Population	42%	5%	8%	21%	2%	21%
	0-20	35%	4%	10%	31%	3%	16%
	20-64	35%	4%	8%	29%	2%	21%
	65+	58%	7%	4%	7%	1%	23%

Source: Statistik Austria and authors' calculations

CAT = Roman Catholics, PRO = Protestants, ORT = Orthodox, MUS = Muslims, OTH = other religions, NOR = no religion

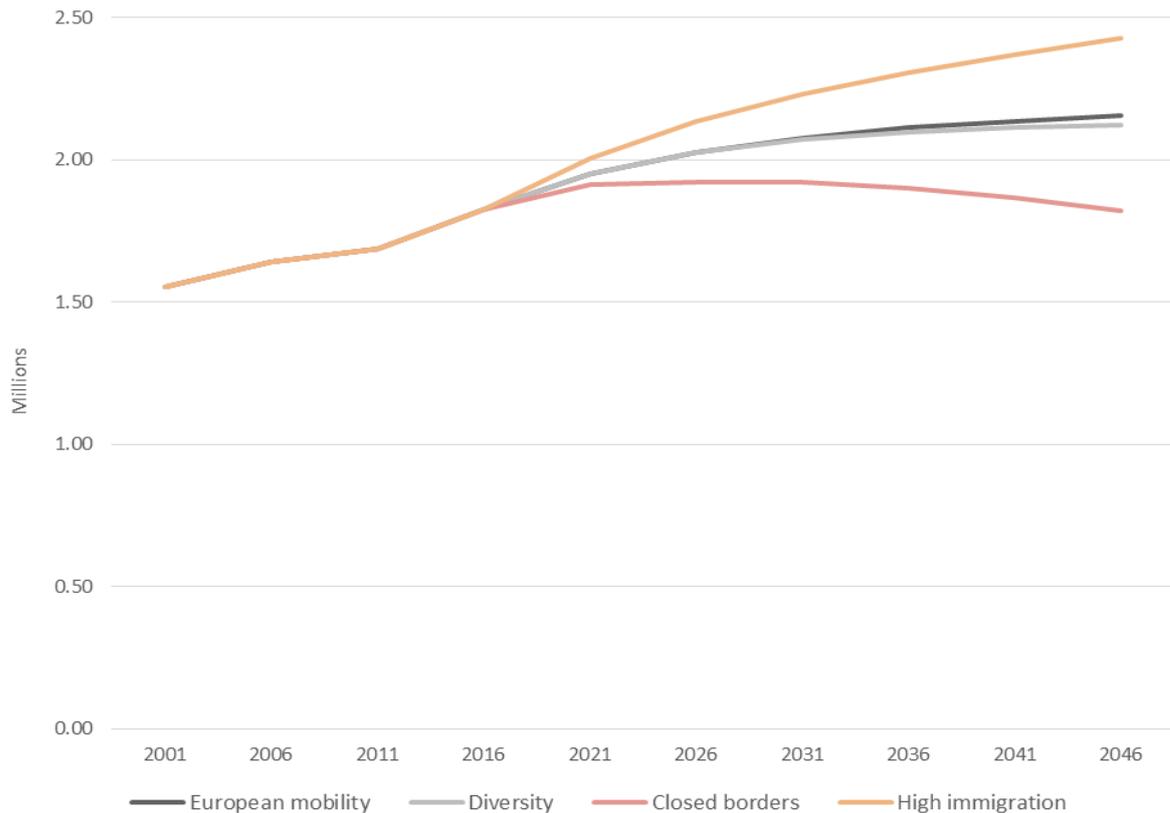
## 7. Vienna: Summary

The population of Vienna would increase in three out of four scenarios. It would decline under the conditions of the *Low immigration* scenario that would greatly limit and later completely diminish international migration (see Figure 45). The lack of international immigrants that would contribute to Vienna's population is further exacerbated by losses due to internal migration. If international migration flows came to a halt, the population size would remain relatively stable at about 1.8 million by 2046.

The increase in the city's population would be particularly acute in the case of the *High immigration* scenario according to which it would reach 2.4 million in 2046. This would

represent an increase of 33% compared to 2016. On the other hand, Goujon et al. (2014) have demonstrated that migration was the key factor shaping Vienna's population size already in the past and found that in absence of migration between 1971 and 2013, the city's population would have dropped to mere 1.2 million instead of 1.7 million in 2013. The two different trend migration scenarios implemented under *European mobility* and *Diversity* would entail a population between 2.1 and 2.2 million, which is close to the projections results of Statistik Austria (2016) for the medium variant.

Figure 45: Vienna –Total population 2001-2046 according to the four scenarios



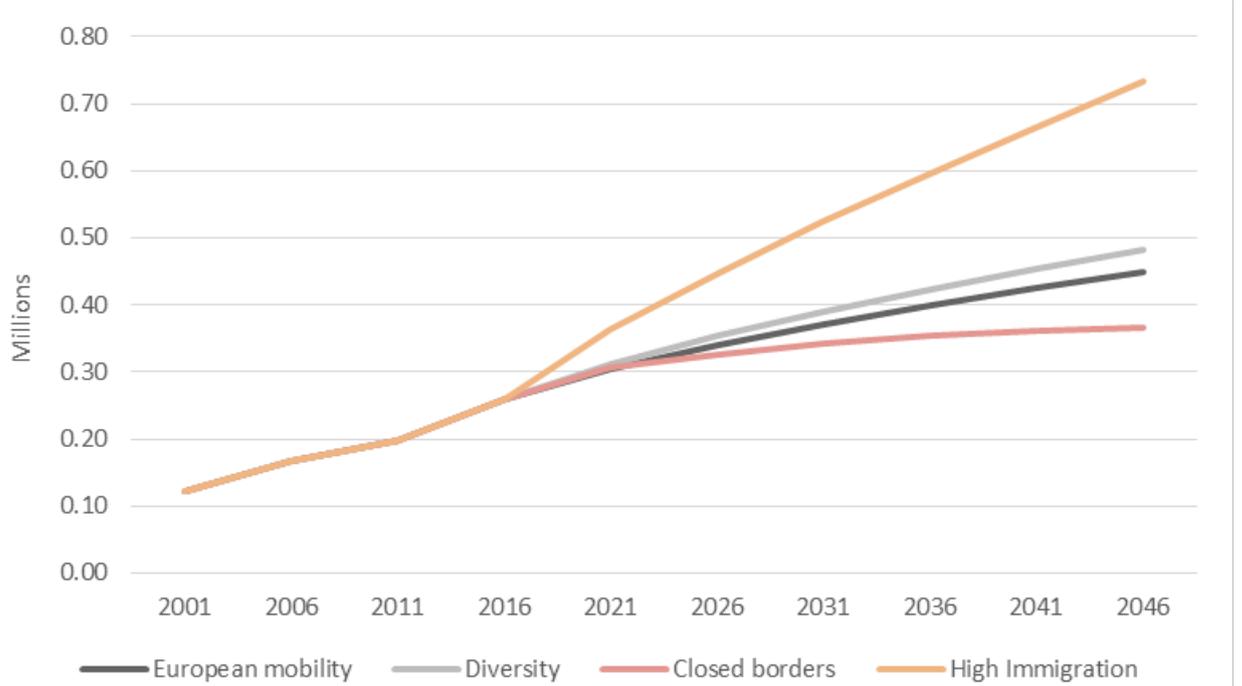
	2001	2006	2011	2016	2021	2026	2031	2036	2041	2046
European mobility	1,553,951	1,641,746	1,689,109	1,826,222	1,950,687	2,027,576	2,078,005	2,112,662	2,136,846	2,156,963
Diversity	1,553,951	1,641,746	1,689,109	1,826,222	1,950,685	2,025,768	2,071,718	2,099,268	2,114,317	2,123,907
Low immigration	1,553,951	1,641,746	1,689,109	1,826,222	1,912,538	1,923,653	1,921,421	1,902,075	1,866,448	1,820,675
High immigration	1,553,951	1,641,746	1,689,109	1,826,222	2,007,005	2,136,489	2,233,353	2,308,930	2,370,924	2,427,817

Source: Statistik Austria and authors' calculations

As was shown in the case of Austria, most of the variation in the religious composition would occur with the absolute number and the share of the Muslim population (see Figure 46 and Figure 47). The Muslim population is more visible in the city of Vienna, also because other religions are less represented in the population compared to the whole of Austria, with the share of the unaffiliated being particularly high. In 2046, there could be

between 360 and 730 thousands of Muslims residing in the city of Vienna. Vienna's Muslim population would be the largest under the assumptions of *High migration* scenario with large migration flows originating mostly from the Middle East and North Africa and sub-Saharan countries and under the condition of persisting high fertility of Muslim women – in that case, the number of Muslims would almost triple compared with 2016 and the share of Muslims would increase to 30% by 2046. In contrast, Muslim population would be the least sizeable if international migration came to a halt during the projection period (scenario *Low immigration*). This scenario would still result in an increase of the share of Muslims to 20% in 2046. Similarly to the results for Austria, the two trend scenarios (*European mobility* and *Diversity*) result in very different group sizes and a different share of Muslim population in Vienna. Should Vienna follow the migration trend observed in the most recent period (2011-2015), the share of Muslims would increase to 23% in the city of Vienna, whereas a pursuit of the trend that was prevalent in 2006-2010, with more European than non-European composing the international migration flows, would mean a share of Muslims of about 21%.

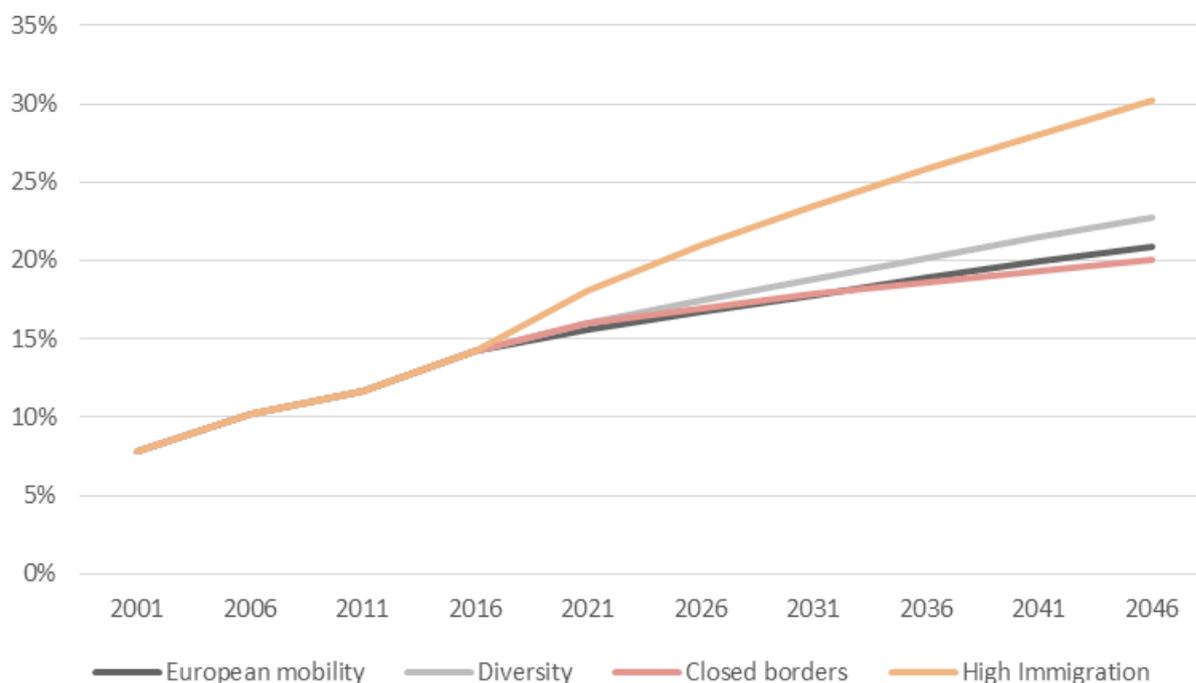
Figure 46: Vienna – Absolute numbers of Muslims 2001-2046 according to the four scenarios



	2001	2006	2011	2016	2021	2026	2031	2036	2041	2046
European mobility	121,439	166,830	197,105	259,894	303,776	339,188	370,213	398,679	425,288	449,829
Diversity	121,439	166,830	197,105	259,894	311,392	353,062	389,735	423,109	453,993	482,541
Low immigration	121,439	166,830	197,105	259,894	306,198	326,555	342,760	354,514	361,766	364,823
High immigration	121,439	166,830	197,105	259,894	362,586	447,765	525,009	597,117	665,570	732,876

Source: Statistik Austria and authors' calculations

Figure 47: Vienna – Share of Muslims population according to the four scenarios



	2001	2006	2011	2016	2021	2026	2031	2036	2041	2046
European mobility	8%	10%	12%	14%	16%	17%	18%	19%	20%	21%
Diversity	8%	10%	12%	14%	16%	17%	19%	20%	21%	23%
Low immigration	8%	10%	12%	14%	16%	17%	18%	19%	19%	20%
High immigration	8%	10%	12%	14%	18%	21%	24%	26%	28%	30%

Source: Statistik Austria and authors' calculations

Contrary to what we have seen in the case of Austria, the population of the religiously unaffiliated strongly varies in the four scenarios. Table 4 shows that the share of the unaffiliated could be as low as 24% in 2046 (*High immigration scenario*) and as high as 31% (*Low immigration scenario*). Diversification of the religious landscape through intense migration results in a declining share of the unaffiliated because most international immigrants are religiously affiliated. This is partly an effect of our assumptions because we assume the same religious composition of these immigrants as there was in their country of origin in 2010, i.e. we do not take into account projected religious compositions in these countries that may be different in nearly 50 years from now if secularisation spreads in these countries.

As shown for Austria, the religious composition of the population of Vienna varies across age groups. Scenario *High immigration*, with very high migration and slow transition of fertility for the Muslim group, leads to a situation where 43% of the population under the age of 20 would be Muslim in Vienna. Under the trend scenarios *European mobility* and *Diversity*, the share of the Muslim population in the younger age

group would be between 30% and 33%, and thus still largely above the share in the total population (21%-23%).

Table 4: Religious distribution of Vienna's population by broad age groups in 2016 and 2046 according to the different scenarios

		<b>CAT</b>	<b>PRO</b>	<b>ORT</b>	<b>MUS</b>	<b>OTH</b>	<b>NOR</b>
2016	Total Population	35%	4%	10%	14%	6%	30%
	0-20	35%	4%	12%	26%	6%	17%
	20-64	31%	4%	11%	15%	7%	33%
	65+	31%	7%	5%	4%	7%	47%
2046 – European mobility	Total Population	24%	5%	16%	21%	6%	29%
	0-20	22%	4%	18%	30%	5%	21%
	20-64	24%	4%	15%	21%	5%	31%
	65+	21%	8%	10%	12%	8%	40%
2046 – Diversity	Total Population	24%	4%	15%	23%	6%	28%
	0-20	21%	3%	17%	33%	5%	21%
	20-64	24%	3%	15%	24%	5%	29%
	65+	21%	8%	9%	13%	9%	40%
2046 – Low immigration	Total Population	26%	4%	12%	20%	6%	31%
	0-20	28%	3%	8%	27%	5%	28%
	20-64	24%	3%	14%	21%	6%	32%
	65+	24%	8%	12%	14%	8%	35%
2046 – High immigration	Total Population	22%	5%	13%	30%	5%	24%
	0-20	19%	4%	14%	43%	4%	16%
	20-64	22%	6%	12%	34%	5%	22%
	65+	20%	8%	9%	17%	8%	38%

Source: Statistik Austria and authors' calculations

CAT = Roman Catholics, PRO = Protestants, ORT = Orthodox, MUS = Muslims, OTH = other religions, NOR = no religion

## 8. Discussion and Conclusion

While the projections demonstrate some of the possible futures that Austria and its capital city could experience in the coming decades, and those are all quite dissimilar, they also show that religious diversity is bound to increase, and there are no reasons to think that any of the trends that have been in place already for several decades in the country will stop and that the country would move back to the situation of the early 1970s. Religious homogeneity will be diminishing. The report demonstrates that the split between religiously affiliated and unaffiliated population will be less and less relevant and that it is more the co-existence of different religious groups that will require the attention of the different stakeholders, both at the national and at the capital city level. This is in line with the post-secular theory.

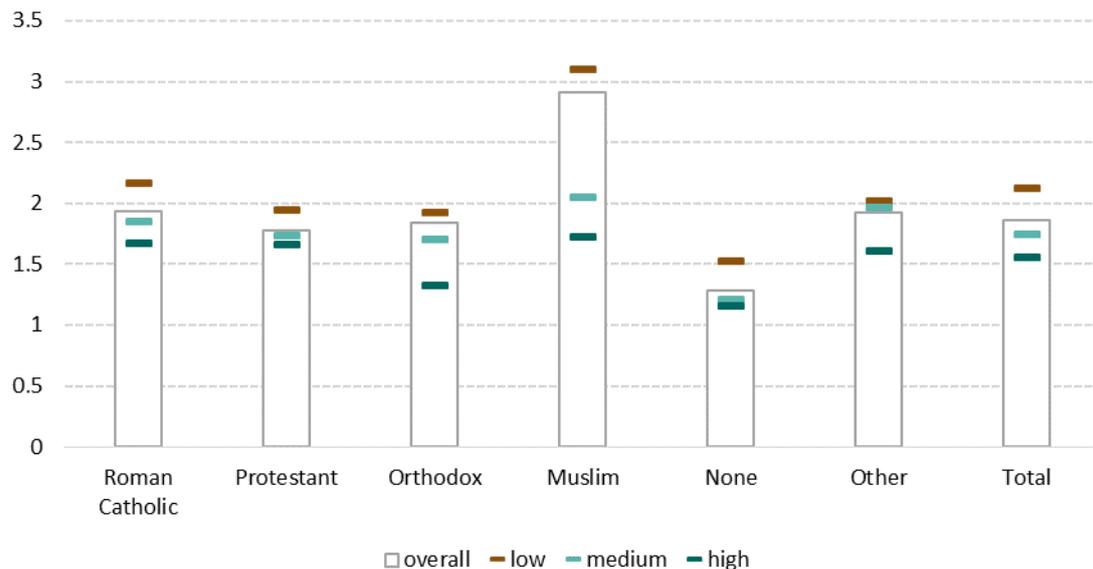
The Austrian situation and that of its capital city are not unique in Europe, and most Western European countries are currently going through similar experiences. Europe's religious landscape is going through profound transformations that have been referred to as a *soft revolution* (Goujon et al. 2014; Goujon and Bauer 2015). *Revolution* because it affects Christianity, which has long been considered the "foundation of a common European identity" (Halman and Riis 2003, p. 1) and *soft* because it is neither violent or sudden, nor is it an organized movement but rather a development that progresses gradually but surely through different societal mechanisms. On the one hand, many Europeans have a low sense of religious belonging, having become secularised or turned towards other forms of spirituality. On the other hand, religious diversity is on the rise, as many European countries have become major receivers of often religiously different international immigrants during the last decades. The increasing stock of international migrants, including second and further generations, is the main driver of socio-demographic, cultural, ethnic and religious diversity in destination countries, where new arrivals have come with an array of religious denominations that were previously often just marginal or non-existent.

The growth of minority religions is not solely driven by immigration but also by the relatively strong demographic momentum of particular migrant groups with youthful age structures and high fertility rates (see also Kulu and González-Ferrer 2014). Immigrants and people belonging to minority religions tend to have a higher level of religious intensity in order to strengthen their self-identity, but also they often come from countries where religion remains important in shaping the social life and levels of religiosity in terms of beliefs and practice. At the same time, descendants of immigrants show a general convergence towards the religious intensity and demographic behaviour of the host society (Inglehart and Norris 2009). However, such secularisation trends are less pronounced among some groups, and a revival of religiosity has been documented within certain second- or third-generation Muslim communities (e.g. Simon and Tiberj 2016; Maliepaard, Gijsberts and Lubbers 2012).

As for the differences in demographic behaviour, and particularly regarding fertility, it is not all about religion. While the positive relationship between religious intensity, family size, and fertility has been well documented (and also holds among the Christians who

are native to the country) (Baudin 2015, Berghammer 2012, Philipov and Berghammer 2007, Adsera 2006), belonging to a religious groups does not predict fertility outcomes. Other socio-cultural and socio-economic characteristics, such as nativity status (recent immigrants tend to have more children), educational attainment (less educated having larger families) or female labour force participation (full-time employed women having smaller families) may be underlying factors of high fertility in some religious groups, in particular in those with a predominantly immigrant background (for Muslims see Stonawski et al. 2015). Muslims in Austria are not an exception and the evidence from census 2001 shows a) that educational gradient in fertility also holds for Muslim women (Figure 48), b) that native-born Muslim women have a lower lifetime fertility compared to foreign-born ones (Figure 49), and c) that there is a large diversity in fertility outcomes of Muslim women of various origins (Figure 49). To sum up, fertility of Muslim women in Austria is high because many have low education and come from countries with higher fertility ideals. However, those Muslim women who are highly educated have similar fertility outcomes as highly educated Roman Catholic women in Austria (Figure 49). Thus, if the new generations of Muslims in Austria achieve higher education and social status, we can expect that they will also have smaller families.

Figure 48: Educational differences in completed fertility<sup>28</sup> of women of various religious groups, Austria 2001



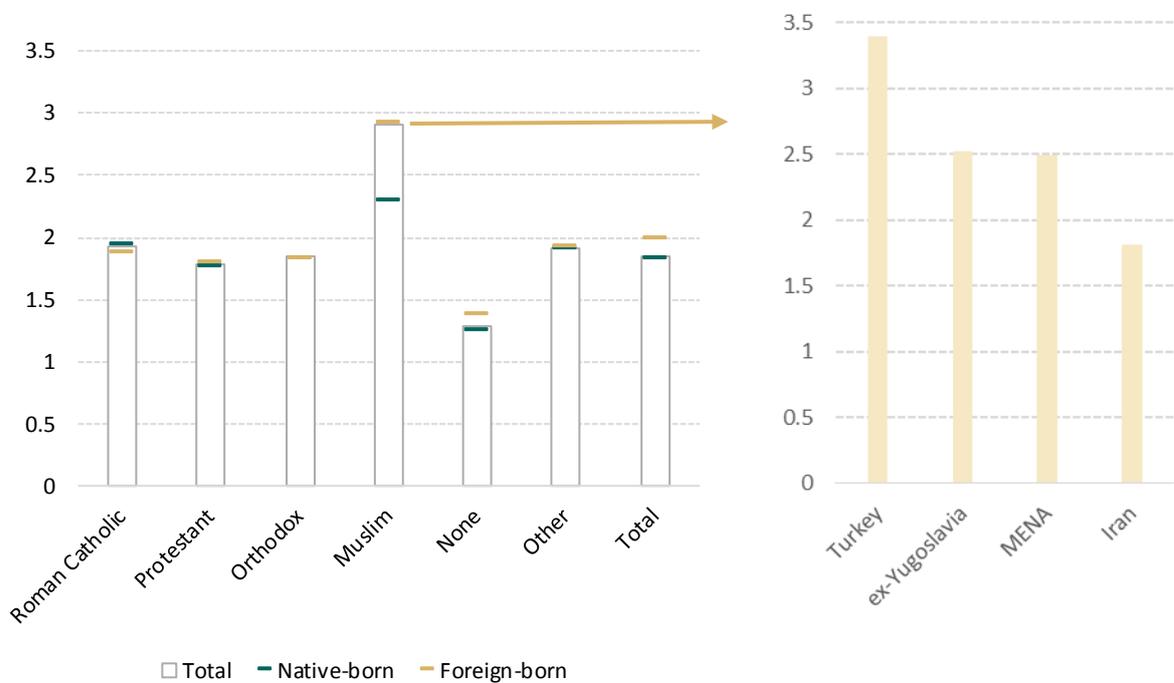
Source: census 2001, authors' calculations

Note: Educational attainment: low – Pflichtschule or lower (ISCED 2 or lower); medium – some secondary education (ISCED 3); high – completed university, kolleg or FH (ISCED 4, 5 or higher).

<sup>28</sup> Completed fertility is synonymous with lifetime fertility. It is an average number of children per women of a given group at the age of 40-54. The fertility of women older than 40 is very low, so we can consider women at that age to have completed their childbearing.

Nativity status and country of origin play a big role, too. Muslim women born in Austria have much lower fertility than their counterparts of immigrant origin (Figure 49). This is in line with the findings of studies from other countries that show convergence of second generation immigrants towards the fertility levels common among the host population (Kulu and González-Ferrer 2014). Recent immigrants tend to have higher fertility, also because they may come from societies and settings where larger families are common and highly valued. Most Muslims in Austria are of Turkish origin, and we can see that Turkish have the highest fertility outcomes among Muslims in Austria (and they also tend to have low education as many came as guest workers and were integrated into the working class social strata). In contrast, Iranian women had a fertility about as high as the average for all women of the same generation in Austria, namely about 1.8 children.

Figure 49: Completed fertility of women of various religious groups and Muslim women of selected origins by education, Austria 2001



Source: census 2001, authors' calculations

This means that with increasing education, integration and with fewer immigrants from high fertility countries, we can expect fertility of Muslim women to continue its downward trend.

Historically, religious belief and affiliation to religious groups and communities were the cornerstones of societal relations. While religion has been at the inception of many conflicts, there is at the same time a rich tradition of coexistence of diverse religions in Europe. This is especially the case in cities and urban areas, which have always been, and still are, hubs of migration and places of social and cultural change (Murphey 1954). Today, European capitals and major cities are at the forefront of both secularisation (Cox

2013; Norris and Inglehart 2004) and post-secular tendencies with the re-emergence of religiosity (Beaumont and Baker 2011; Habermas 2008) as well as the growing visibility of religions in the public space (Oosterbaan 2014; Finke and Stark 2000), including issues of various forms of segregation (Catney 2016). According to Beaumont and Baker (2011, p.1), “rapidly diversifying urban locations are the best places to witness the emergence of new spaces in which religions and spiritual traditions are creating both new alliances but also bifurcations with secular concepts.”

In the public debate, religious diversity is often considered as a constraint for the peaceful coexistence of, and dialogue among, different communities and social groups (Carol and Koopmans 2013), particularly so if secularism is seen as one of the core values and rules of conduct in European societies, with religion broadly perceived as private. The polarizing trends of increased religious pluralism and religiosity on the one side and ongoing secularisation on the other side are shaping the diverse religious landscape of Europe (Knippenberg 2005), as well as the global environment in terms of national policies and international settings (see Beaumont and Baker 2011; Gale and Naylor 2002).

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## 10. Annex

The results of the reconstruction and of the projections according to different scenarios for Austria and Vienna are based on authors' calculations and Statistik Austria data.

### 10.1. Results for Austria

<i>European mobility scenario</i>		Absolute Numbers	Share
<b>2001</b>	Roman Catholics	6,025,623	75%
	Protestants	383,026	5%
	Orthodox	183,187	2%
	Muslims	346,502	4%
	Other religions	100,856	1%
	No religion	981,752	12%
	<b>Total Population</b>	<b>8,020,946</b>	
	<b>2016</b>	Roman Catholics	5,563,551
Protestants		412,423	5%
Orthodox		397,219	5%
Muslims		686,599	8%
Other religions		142,062	2%
No religion		1,460,339	17%
<b>Total Population</b>		<b>8,662,193</b>	
<b>2046</b>		Roman Catholics	4,357,037
	Protestants	508,755	5%
	Orthodox	888,988	9%
	Muslims	1,327,723	14%
	Other religions	236,236	2%
	No religion	2,385,764	25%
	<b>Total Population</b>	<b>9,704,503</b>	

<i>Diversity scenario</i>		Absolute Numbers	Share
<b>2001</b>	Roman Catholics	6,025,623	75%
	Protestants	383,026	5%
	Orthodox	183,187	2%
	Muslims	346,502	4%
	Other religions	100,856	1%
	No religion	981,752	12%
	<b>Total Population</b>	<b>8,020,946</b>	
	<b>2016</b>	Roman Catholics	5,563,551
Protestants		412,423	5%
Orthodox		397,219	5%
Muslims		686,599	8%
Other religions		142,062	2%
No religion		1,460,339	17%
<b>Total Population</b>		<b>8,662,193</b>	
<b>2046</b>		Roman Catholics	4,293,842
	Protestants	416,900	4%
	Orthodox	828,587	9%
	Muslims	1,605,198	17%
	Other religions	230,182	2%
	No religion	2,267,980	24%
	<b>Total Population</b>	<b>9,642,689</b>	

<i>Low immigration scenario</i>		Absolute Numbers	Share
<b>2001</b>	Roman Catholics	6,025,623	75%
	Protestants	383,026	5%
	Orthodox	183,187	2%
	Muslims	346,502	4%
	Other religions	100,856	1%
	No religion	981,752	12%
	<b>Total Population</b>	<b>8,020,946</b>	
	<b>2016</b>	Roman Catholics	5,563,551
Protestants		412,423	5%
Orthodox		397,219	5%
Muslims		686,599	8%
Other religions		142,062	2%
No religion		1,460,339	17%
<b>Total Population</b>		<b>8,662,193</b>	
<b>2046</b>	Roman Catholics	4,033,780	47%
	Protestants	356,901	4%
	Orthodox	541,008	6%
	Muslims	1,062,201	12%
	Other religions	174,602	2%
	No religion	2,377,572	28%
	<b>Total Population</b>	<b>8,546,064</b>	

<i>High immigration scenario</i>		Absolute Numbers	Share
<b>2001</b>	Roman Catholics	6,025,623	75%
	Protestants	383,026	5%
	Orthodox	183,187	2%
	Muslims	346,502	4%
	Other religions	100,856	1%
	No religion	981,752	12%
	<b>Total Population</b>	<b>8,020,946</b>	
	<b>2016</b>	Roman Catholics	5,563,551
Protestants		412,423	5%
Orthodox		397,219	5%
Muslims		686,599	8%
Other religions		142,062	2%
No religion		1,460,339	17%
<b>Total Population</b>		<b>8,662,193</b>	
<b>2046</b>	Roman Catholics	4,416,956	42%
	Protestants	526,502	5%
	Orthodox	854,999	8%
	Muslims	2,247,777	21%
	Other religions	261,327	2%
	No religion	2,168,722	21%
	<b>Total Population</b>	<b>10,476,283</b>	

## 10.2. Results for Vienna

<i>European mobility scenario</i>		Absolute Numbers	Share
<b>2001</b>	Roman Catholics	764,101	49%
	Protestants	72,699	5%
	Orthodox	93,446	6%
	Muslims	121,439	8%
	Other religions	103,733	7%
	No religion	398,533	26%
	<b>Total Population</b>	<b>1,553,951</b>	
<b>2016</b>	Roman Catholics	634,181	35%
	Protestants	82,049	4%
	Orthodox	189,506	10%
	Muslims	259,894	14%
	Other religions	118,471	6%
	No religion	542,121	30%
	<b>Total Population</b>	<b>1,826,222</b>	
<b>2046</b>	Roman Catholics	522,619	24%
	Protestants	106,056	5%
	Orthodox	342,955	16%
	Muslims	449,829	21%
	Other religions	120,298	6%
	No religion	615,206	29%
	<b>Total Population</b>	<b>2,156,963</b>	

<i>Low immigration scenario</i>		Absolute Numbers	Share
<b>2001</b>	Roman Catholics	764,101	49%
	Protestants	72,699	5%
	Orthodox	93,446	6%
	Muslims	121,439	8%
	Other religions	103,733	7%
	No religion	398,533	26%
	<b>Total Population</b>	<b>1,553,951</b>	
<b>2016</b>	CAT	634,181	35%
	PRO	82,049	4%
	ORT	189,506	10%
	MUS	259,894	14%
	OTH	118,471	6%
	NOR	542,121	30%
	<b>Total Population</b>	<b>1,826,222</b>	
<b>2046</b>	CAT	480,980	26%
	PRO	78,247	4%
	ORT	217,783	12%
	MUS	364,823	20%
	OTH	110,665	6%
	NOR	568,177	31%
	<b>Total Population</b>	<b>1,820,675</b>	

<i>Diversity scenario</i>		Absolute Numbers	Share
<b>2001</b>	Roman Catholics	764,101	49%
	Protestants	72,699	5%
	Orthodox	93,446	6%
	Muslims	121,439	8%
	Other religions	103,733	7%
	No religion	398,533	26%
	<b>Total Population</b>	<b>1,553,951</b>	
<b>2016</b>	Roman Catholics	634,181	35%
	Protestants	82,049	4%
	Orthodox	189,506	10%
	Muslims	259,894	14%
	Other religions	118,471	6%
	No religion	542,121	30%
	<b>Total Population</b>	<b>1,826,222</b>	
<b>2046</b>	Roman Catholics	512,501	24%
	Protestants	88,300	4%
	Orthodox	324,163	15%
	Muslims	482,541	23%
	Other religions	124,154	6%
	No religion	592,248	28%
	<b>Total Population</b>	<b>2,123,907</b>	

<i>High immigration scenario</i>		Absolute Numbers	Share
<b>2001</b>	Roman Catholics	764,101	49%
	Protestants	72,699	5%
	Orthodox	93,446	6%
	Muslims	121,439	8%
	Other religions	103,733	7%
	No religion	398,533	26%
	<b>Total Population</b>	<b>1,553,951</b>	
<b>2016</b>	Roman Catholics	634,181	35%
	Protestants	82,049	4%
	Orthodox	189,506	10%
	Muslims	259,894	14%
	Other religions	118,471	6%
	No religion	542,121	30%
	<b>Total Population</b>	<b>1,826,222</b>	
<b>2046</b>	Roman Catholics	539,145	22%
	Protestants	132,297	5%
	Orthodox	321,442	13%
	Muslims	732,876	30%
	Other religions	129,095	5%
	No religion	572,962	24%
	<b>Total Population</b>	<b>2,427,817</b>	

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