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DEMIFER Case Studies

The Piemonte Region (Italy)
'Challenge of ageing' and immigration

Prepared by
Giuseppe Gesano
CNR-IRPPS – Italian National Research Council
Institute of Research on Population and Social Policies
Roma, Italy



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Table of contents

Table of contents	I
List of Figures	III
List of Maps	III
Key findings	IV
1 Introduction	1
1.1 General framework	1
1.2 The Italian region Piemonte in the DEMIFER classification	2
1.3 Specification of the research questions and aims	3
1.4 Outline of the case study report	4
2 Basic information on the Piemonte region	6
2.1 Regional morphology, connections, and human settlement	6
2.2 Historical demographic and economic background	8
2.3 Review of the existing studies of demographic and migratory flows in Piemonte ...	12
3 The demographic situation in the Piemonte region and its provinces	14
3.1 Age structure of the population	16
3.2 Population change and its components.....	19
3.3 Natural change: fertility and mortality.....	20
3.4 Net migration and migration flows.....	24
3.5 Presence of foreign migrants: their provenance and demographic characteristics .	31
4 The socio-economic environment and population in the Piemonte region and its provinces	36
4.1 Main economic characteristics at NUTS3 level	36
4.2 Workforce and working-age population	38
4.3 Role of foreign immigrants in the workforce.....	41
4.4 Human and Social Capital	42
4.5 The socio-economic environment and demographic behaviour	45
4.6 The socio-economic environment and population ageing.....	47
4.7 The socio-economic environment and foreign immigration	50
4.8 The socio-economic environment, population settlement and population mobility .	51
4.9 Current and predictable effects of the 'Global Recession'.....	52
5 Prospects for population ageing in the Piemonte region	54
5.1 A no-migration, constant-rates population projection	54
5.2 How much net migration to maintain demographic equilibrium?.....	56
5.3 The DEMIFER scenarios	57
5.4 Other regional population projection	59
6 Conclusions and generalisation of the case study	61
References	62

List of Statistical Tables

Table 1	Recent main demographics in the Piemonte region and its provinces.....	14
Table 2	Components of ageing of the elderly population in the Piemonte region by time period.....	17
Table 3	Components of ageing of the working-age population in the Piemonte region by time period	17
Table 4	Structure of the resident population by age group in the Piemonte region and its provinces: 1 st January 1992, 2002, and 2009 (%).....	17
Table 5	Birth rate, Total Fertility Rate (TFR), and Average Age of Mothers at Childbirth (AAMC) in the Piemonte region and its provinces.....	23
Table 6	Death rate and Life Expectancy at Birth (e_0) by gender in the Piemonte region and its provinces	24
Table 7	Intra-province migration in the Piemonte region and its provinces: average 2001-2007	26
Table 8	Inter-province, intra-region migration in the Piemonte region and its provinces: average 2001-2007	26
Table 9	Inter-region migration in the Piemonte region and its provinces: average 2001-2007	27
Table 10	In-migration from abroad to the Piemonte region and its provinces: average 2001-2002 and 2006-2007	28
Table 11	Some features of the foreign resident population in the Piemonte region and its provinces: 1/1/2009	31
Table 12	Foreign resident population in the Piemonte region and its provinces by geographical area of citizenship: 1/1/2009 (row %)	33
Table 13	Demographic structure of the foreign resident population in the Piemonte region and its provinces: 1/1/2009	34
Table 14	Added Value, Labour Units and Employed Population in the Piemonte region and its provinces: 2007.....	37
Table 15	Labour Units by economic sector in the Piemonte region and its provinces: 2007 (% of total LU).....	38
Table 16	Structure of the employed population by economic sector in the Piemonte region and its provinces: average 1993, 2001, and 2008 (% of total employed population).....	39
Table 17	Changes in the employed population by economic sector or worker position in the Piemonte region and its provinces: 2001-2008 (% change or net change in thousand)	39
Table 18	ISCED index and share of graduates or post-graduates in the 15 year and over population in the Piemonte region: 2001 and 2008.....	43
Table 19	Indexes of the situation of elderly people in the municipality of Torino, Piemonte, North-Western Italy and Italy (%).....	47
Table 20	Indexes of the ageing of labour-age population in the municipality and province of Torino, Piemonte, North-Western Italy and Italy	49
Table 21	Average annual rate of change of the no-migration, constant-rates projected population by age group in the Piemonte region and its provinces: 2009-2019 and 2020-2029 (%).....	55

Table 22	Some structural indexes of the no-migration, constant-rates projected population in the Piemonte region and its provinces: 1 st January 2009, 2020, and 2030	55
Table 23	Population projections for Piemonte by some agencies: EUROSTAT (Convergence Scenario); ISTAT-2007 (Middle Scenario); IRES-2006.....	59

List of Figures

Figure 1	Total population trends in the Piemonte region and its provinces: 1992-2010 (Index Numbers: Resident population 1/1/1992 = 100)	20
Figure 2	Main components of population change in the provinces of the Piemonte region: 2002-2009	21
Figure 3	Trends of the share of resident foreign population in the Piemonte region and its provinces: 1993-2009 (%)	32
Figure 4	Components of changes in the employed population by gender and age in the Piemonte region: 2001-2008.....	40
Figure 5	Annual net migration necessary for maintaining the listed variables constant in the Piemonte region: 2009-2029	57
Figure 6	Population trends in the Piemonte region according to the DEMIFER scenarios: 2005-2050	58

List of Maps

Map 1	Municipalities by their resident population in the Piemonte region: 1/1/2010 ...	7
Map 2	Municipalities by the average annual rate of population change in the Piemonte region: 2007-2009 (‰)	15
Map 3	Municipalities by the share of elderly resident population (65+ yrs) in the Piemonte region: 1/1/2009 (%).....	18
Map 4	Municipalities by the rate of natural change in the Piemonte region: 2007-2009 (‰).....	22
Map 5	Municipalities by the rate of internal net migration in the Piemonte region: 2007-2009 (‰).....	25
Map 6	Municipalities by the rate of international net migration in the Piemonte region: 2007-2009 (‰).....	29
Map 7	Municipalities by the share of foreign resident population in the Piemonte region: 1/1/2009 (%)	30

Key findings

- *The Piemonte region has been experiencing population ageing for long time, mainly because of low fertility that began in the first half of the past century. Recently, also important ageing processes at the top of the age pyramid and within the working-age population took place.*
- *In the past century, Piemonte has been a forerunner in the Italian industrial panorama, but some mountainous and hilly areas have been long suffering poverty and depopulation caused by internal moves to the towns in the plain or emigration abroad.*
- *The economic boom in the late 1950s and early 1960s required important inflows of migrants from other Italian regions to compensate the labour shortages due to insufficient cohort turnover in the local working-age population. Those immigrants, though barely integrated, contributed significantly in recovering the demography of vast areas but, eventually, they adopted a reproductive behaviour similar to the native population. The regional total fertility rate fell to one child per woman in the middle 1990s.*
- *Starting with the oil crises in the 1970s, the automotive industry, prevailing in Piemonte, went through a long-lasting crisis that heavily involved the whole regional economy till the end of the century. Emancipating from the Fordist economy that dominated the region is a still current process. In this, the organisation of the 20th Winter Olympic Games in Torino in 2006 may have helped in changing the polar axis of the regional economy, though it left behind some questionable results in public finance and the environment.*
- *New quantitative and qualitative mismatches between labour demand and supply came forth, by which immigration from abroad was attracted. Foreign workers are concentrated in construction and manufacturing industry, but specific flows of middle-aged women from eastern European countries found employment in housekeeping and elderly care.*
- *The settling of foreign migrants has not been easy, especially in the deprived areas of Torino and the towns' outskirts. However, house ownership is now increasing among the immigrants, who formed a new family or were joined by their original family, so having their former and new children in Piemonte. Their contribution to the increase of regional fertility is not negligible at all.*
- *Population ageing is slowed, but it hardly can be reversed by immigration, while also a steady working-age population could be achieved only by important annual inflows and fast increasing share of the foreign presence in the region.*
- *Piemonte region epitomizes the challenge of ageing in a dynamic context. Notwithstanding the shortages in the regional working-age population, the region has been developing almost continuously. The drawbacks suffered in the forth quarter of the last century must be ascribed to the productive system more than to population trends and ageing. Whenever necessary, the economic system was able to attract migrants to compensate the shortages.*
- *The generalisation of the Piemonte case study is limited historically to regions having experienced similar trends in socio-economic transformation and demographic decline, in prospect to the areas able to maintain a capability in socio-economic innovation and migrants' integration.*

1 Introduction

1.1 General framework

As Alfred Sauvy [2000] predicted, population ageing is a common destiny for the 21st century populations. The decrease in fertility ends by producing smaller cohorts of newborns so that the preceding cohorts, comparatively larger, shift into older ages. The latter ones may also benefit from reductions in mortality, thus causing a general ageing of the population structure and, eventually, the increase in the elderly. On the other side, out-migration of the young working-age population from backward areas heightens the burden of the unproductive age groups (the elderly, in particular) on the productive ones, as well as it reduces the birth rate because of the lack of reproductive population, thus fostering an ageing process also from the base.

Europe – with its demographic history marked by intense emigrations overseas, two ruinous wars and an early fertility control – witnessed the ageing of many of its populations early on. From a regional perspective, the ageing process appears even more accentuated, following the regional diversity in past demographic history and recent changes in population and socio-economic environment.

The challenge of population ageing not only undermines cohort turnover, but it also affects the equilibrium of a society and economy substantially based on growing or stationary populations. Regions that have to face this challenge risk productive recession and financial dependence [Crisci *et* Heins 2005]. Their socio-economic and demographic recovery, however, may come from the local capability to reshape their socio-economic environment and/or from any spur that can innovate it: the following immigrations, as well as the opening of opportunities for the young couples of natives, may change population trends into the positive and reduce population ageing. This process is more likely in regions where population ageing mainly comes from insufficient fertility levels in the past rather than from intense out-migration of the working-age population: the seed of the socio-economic and demographic 'renaissance' can be maintained there against the regions in which mainly an elderly, retired population remain.

The Italian region Piemonte is just one with a long-term ageing process, mainly because of low fertility, which began in the first half of the past century. Its lively economy had to face problems of insufficient labour supply because of scarce cohort turnover already in the 1950s and '60s. Massive immigration from other less developed regions of northern Italy and especially from the South filled up the labour force deficits, but also populated the young age groups in several areas of Piemonte with couples that had higher fertility models than the native ones. Population ageing was hampered temporally by the arrival of youngsters and relented over longer times by their offspring.

At the end of the past century, the Piemontese economy suffered some important drawbacks, while the ageing of its population increased from both the lowest-low fertility and reductions in elderly mortality. However, the local economy and society were able to be partially set free from the Fordist industrial environment that dominated the region, mainly through the presence of the FIAT headquarters and main productive plants, but also due to several other factories scattered over the plains in the region. Local potentialities have been encouraged

also in non-manufacturing fields (agriculture, tourism, etc.) and an important shift of the labour force into the service sector took place. The organisation of the 2006 'big event' 20th Winter Olympic Games in Torino favoured the restyling of the city and endowed some areas in the region with infrastructures for sport, tourism and easier commuting to the capital city.

Once again, the local population structure might have hindered those new developments. Immigration – now from abroad – has solved the quantitative and qualitative mismatches between labour demand and supply, not only relieving the labour market imbalances in the productive system, but also solving family problems in housekeeping, child assistance and elderly nursing.

The acceptance and settlement of those immigrants have not been easy at all, their provenance being various, but prevalently from Romania, Morocco, Albania, and China. Specific inflows of middle-aged women came from Eastern Europe to fulfil the request for housekeepers and nurses for elderly people. Other specific flows by gender and age may have met specific needs of the labour market. However, a large part of the immigrants settled down all over the region, but especially in the municipality of Torino, in the provinces' capital cities and around them. Most of the migrant communities are shaped approximately population-like, so that an important foreign offspring has begun to populate the younger cohorts in the region. In the meantime, also the native fertility has increased a little, though maintaining the population natural change in the negative.

The substantial contribution by foreign workers to the labour force employed in the region is much more evident in the young-age groups for both genders (but especially for men), where they have defied the important reductions coming from the insufficient cohort turnover in the native population. However, the analysis also shows internal changes in the labour market that may have forced middle-aged men, and especially women, to remain employed till older ages than they used to do even in the recent past.

1.2 The Italian region Piemonte in the DEMIFER classification

The DEMIFER 'Case studies' have a twofold aim: they contribute to improving the knowledge on demographic and migratory flows focusing on the aspects of internal and international migration, and to translating the output of the policy oriented activities into specific regional settings. The case studies bring together the various activities, connecting the implementation of the analyses, the development of the typology, the scenario building and the formulation of the policy implications. They also illustrate the results and impacts at a regional and sub-regional level. The selection of the NUTS2 regions that serve as case studies are based on the results of the DEMIFER activities 2 'Typology of regions and cities'. From each type defined in the typology at least one region or city, preferably the closest to the cluster centre, is selected to serve as case study. A total of 12 NUTS2 regions are selected, but obviously the case studies cannot cover the entire socio-economic diversity of the European regions.

The Italian region Piemonte belongs to the 'Challenge of ageing' cluster, which includes 33 ESPON regions [DEMIFER 2009]. With the exception of some regions in Great Britain (Devon, Dorset and Somerset, Lincolnshire, Cornwall, and Isles of Scilly) and in Greece (Ipeiros, Ionia Nisia), they are concentrated in Portugal,

Northern Spain, France (to the north of the Pyrenées), and, in particular, in Northern and Central Italy, where almost all regions (13/14) belong to this typology. Regions in the 'Challenge of ageing' cluster are characterised by both a large share of elderly population (65 years and over) and a positive population change driven by positive net migration, this latter feature being the one opposing the 'Challenge of decline' group. On the basis of the two structural variables used in the classification, the 33 regions can be subdivided into 3 approximate sub-clusters: the first sub-cluster includes about 10 regions where a large share of the population is aged 65 years and over and a small share of the population is aged 20-39 years; the second sub-cluster, slightly more numerous, where the share of the over-65s is large and that of the 20-39 year-olds more or less reflects the ESPON average (16,6%); and the third cluster includes a further 10 or so regions where the share of the 20-39 year-olds is larger. Piemonte is in the central sub-cluster, but it is also in 12th place in the descending ordered list of all the ESPON regions by share of elderly population.

It is interesting to note that the 33 regions included in the 'Challenge of ageing' cluster show a slight negative relationship ($r = -0.19$) between the share of population aged 65 years and over on 1/1/2005 and the 2001-2005 rate of net migration: the larger the share, the lower the net migration rate. This is not the case for the 13 Italian regions in this cluster: they show a higher net migration rate where the elderly population share is larger ($r = +0.45$). Where population ageing mainly depends on the insufficient cohort turnover in young ages because of low fertility in present and past times, immigration may be attracted there by quantitative and/or qualitative shortages in the labour market if the local economic environment maintains its vitality. Moreover, specific immigration flows from abroad can alleviate the elderly care problems, especially if public welfare is lacking and the socio-economic context is sufficiently affluent. In fact, the 13 Italian regions in the cluster are the economically most developed and rich in Italy. Piemonte is exactly in the centre of the elderly-share/net-migration scatter plot of those 13 Italian regions. It can well represent the positive linkages that may be set between population ageing and immigration. In any case, because of the important migration flows driven by push factors both from Eastern Europe and Third World countries, a too mechanical view of immigration to fill the local population shortages must be avoided: the large presence of undocumented migrants and the high unemployment levels the migrant workers are suffering testify to the importance of that component.

1.3 Specification of the research questions and aims

Population ageing is a widespread phenomenon in the ESPON space. Among the 30 oldest countries in the world, 24 are ESPON countries¹. In a weighted average of the 288 NUTS2 regions, the share of the population aged 65 years and over was 16.6% at the start of 2005: in 143 regions this share was larger, with the largest share of 26.5% being in Liguria (Italy). The share of the elderly population grew between 1997 and 2007 in most (127/145) of the ESPON NUTS2 regions for which this comparison can be made, in particular in Southern and Central-Eastern Europe².

¹ Statistics based on the share of the population aged 60 and over [UN, *World Population Ageing 2007*].

² ESPON database.

The demographic factors of population ageing are different and vary in importance according to the current phase of the phenomenon. Furthermore, ageing tends to affect all the different age groups and, in particular the working-age population. The levels that population ageing have reached and its distribution over the territory are only the first indication of the seriousness of the challenge to the demographic, economic and social vitality of a region. The demographic components of population ageing and the degree to which the various age-groups are affected indicate, on the one hand, the residual opportunities for the population to recover and, on the other, the effects of ageing on the functioning of the demographic mechanism, the economy and the society in the region.

In order to use the Piemonte region as a paradigm, it is therefore indispensable to know the situation of its population ageing, the demographic history that has produced it, and the effects and problems that population ageing may cause in the regional labour market and economy. The opposite is also worth studying, because of possible direct and indirect effects of economic change and structure on population ageing and its various components – migrations and reproductive behaviour.

Generally speaking, if mortality is stable or decreasing, population ageing can be countered by an increase in births and/or by immigration. New migrants introduce younger people into the region, instantly reducing the share of the older population and, if the immigrant population is structured and settled correctly, immigrants' offspring will contribute to a recovery in the region's birth rate. Such a recovery is due to an increase in the number of women of childbearing age as well as to a possible rise in local fertility, either because immigrant women tend to have a higher fertility, or because of a recovery from the low fertility level of the native population.

Another research question is therefore to discover if there are any induced factors that confront population ageing in Piemonte and, if so, how much influence they may have. It is also necessary to assess their effectiveness in terms of demography and economic production. Mention will also be made of the policies (or lack of policies) regarding the settlement of immigrants in the region and the related social problems.

1.4 Outline of the case study report

A feature background of the Piemonte region is given in Section 2 arranged in a territorial and settlement description (paragraph 2.1), a sketch of the historical, demographic and economic background (paragraph 2.2) and a short review of the main studies on the population and migrations of the Piemonte region done under the thesis of some parallelism between the current situation and the 1950s and '60s (paragraph 2.3).

The recent demographic situation in the region (Section 3) is then studied in respect to: its population structure and the factors of population ageing (paragraph 3.1), population trends (paragraph 3.2) and the recent natural (paragraph 3.3) and migratory (paragraph 3.4) components of population change. The presence of foreign migrants according to their provenance and demographic features will be analysed in paragraph 3.5.

Section 4 deals with the mutual linkages between the socio-economic environment and population: in paragraph 4.1, specific economic and productive features will be analysed at NUTS3 (province) level. Trends in working-age population and workforce will be studied in paragraph 4.2 and the role of labour immigrants in paragraph 4.3. Human capital and social capital (paragraph 4.4) in the region will be analysed and compared with Italy as a whole. Then the socio-economic environment will be considered according to the problems coming from demographic behaviour (paragraph 4.5), population ageing (paragraph 4.6), foreign immigration (paragraph 4.7), and population settlement over the regional territory (paragraph 4.8). A paragraph (4.9) devoted entirely to the effects of the 'Global Recession' will close this section.

The possible futures of population ageing in Piemonte will be examined in Section 5 through either an exercise of no-migration, constant-rates population projection (paragraphs 5.1 and 5.2), DEMIFER scenarios (paragraph 5.3) and other official projections (paragraph 5.4).

Conclusions will be drawn in Section 6, together with considerations about the extensibility of the Piemonte case study to other ESPON regions affected by the challenge of population ageing.

Wherever possible, the analysis will be broken down into the eight provinces in which at present the Piemonte region is subdivided from an administrative point of view. In the statistical tables and graphs, comparisons with the reference areas of Italy and North-Western Italy, will be reported.

2 Basic information on the Piemonte region

2.1 Regional morphology, connections, and human settlement

The territory of Piemonte extends over 25,400 km², of which 43% is mountainous, with the Alps forming a belt from north-north-east to south-west and dividing Piemonte from the Swiss regions of Valais and Ticino and from the French regions Rhône-Alpes and Provence-Alpes-Côte d'Azur³, while the Appennines separate Piemonte from the Ligurian coast. 30% of Piemonte is hilly, especially in the northwest (Canavese), centre (Monferrato) and south (Langhe); the remaining area is flat terrain. The plains are C-shaped from southwest to northeast and spread over into Lombardia to the east. To the northwest, Piemonte shares the shores of Lake Maggiore with Lombardia. The first section of the River Po, Italy's longest river, crosses the region and many tributaries contribute water from the surrounding mountains.

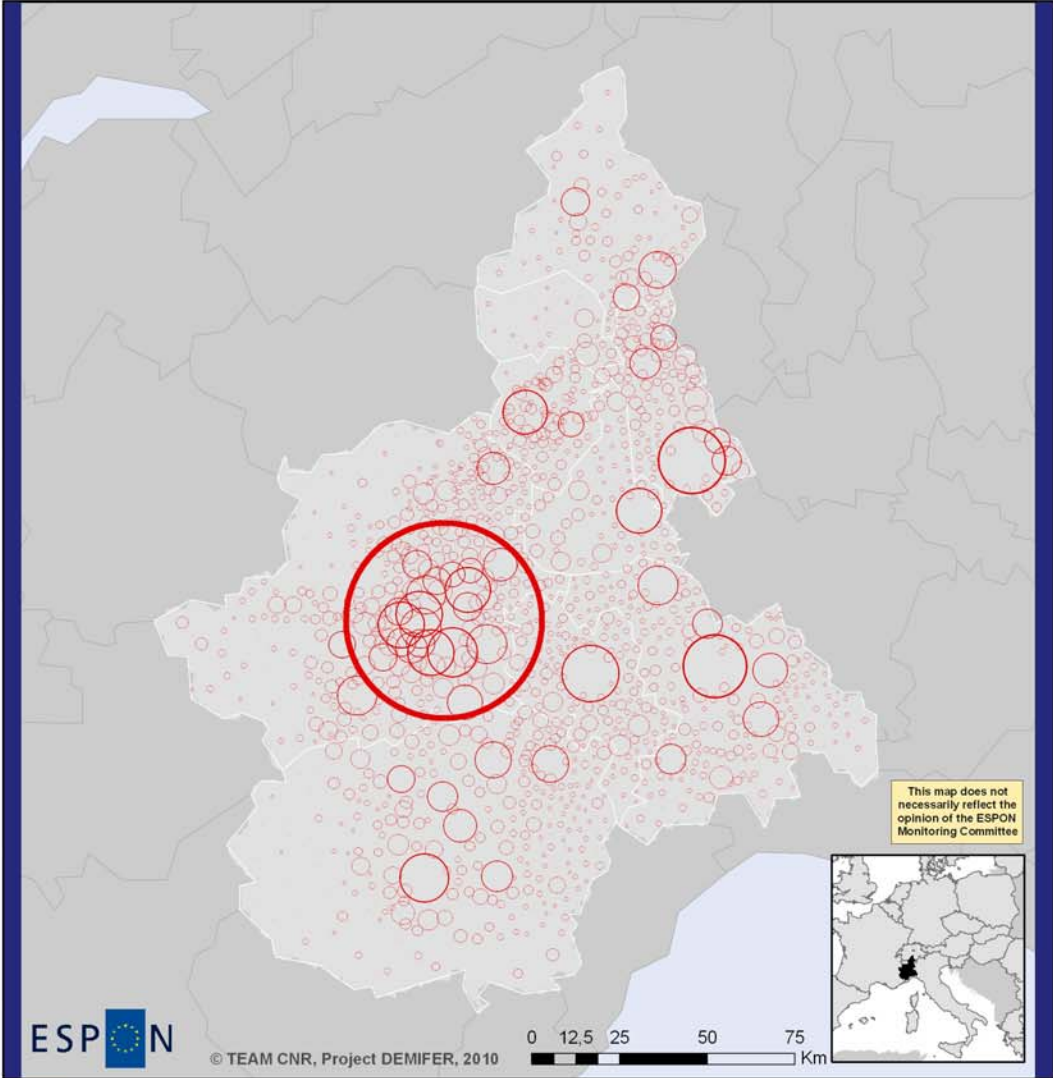
There is a generous opening to the east towards the Po Valley and various routes through the mountain chains linking Piemonte with the ports of Genova and Savona in Liguria and the port of Marseille on the French Mediterranean coast. Besides the numerous but high-altitude Alpine passes, there are tunnel links under the Piemonte mountains with Switzerland (Sempione) and Central and North-Western France (the Fréjus rail tunnel and, through the Valle d'Aosta region, the Mont Blanc road tunnel). The high-speed Torino-Lyon rail link, which should cover a section of "Pan-European Corridor 5" from Lisbon to Kiev, is at the planning stage, although there is local opposition to it. Torino has a category A airport and is a two hour bus journey from the Malpensa International Airport.

Piemonte's population is widely dispersed across the region. At the 2001 Population Census, just fewer than 7% of the population lived in isolated dwellings (but this proportion was more than 18% lived in the agricultural province of Asti and 16% in the mountainous province of Cuneo). The rest of population lived in a good 7,654 localities, collected into 1,206 municipalities that ranged from 46 to 865,263 inhabitants. Only 53 localities numbered more than 10,000 residents; only the city of Torino had more than 100,000 inhabitants (863,669); 1/6 of the population resided in communities of less than 1,000 inhabitants. 2/5 of the population lived at an altitude of between 250 and 600 metres, and 55% lived below 250 metres above the sea level.

The population settlement (Map 1) follows the regional morphology and the cumulated effects of the local different economic developments and recessions, which induced migrations and population moves, as well as some differential in demographic behaviours.

³ North-West of Piemonte, wedged between France and Switzerland, there is the small autonomous region of Valle d'Aosta, through which passes the important road to the tunnel under Mont Blanc.

**Map 1 Municipalities by their resident population in the Piemonte region:
1/1/2010**

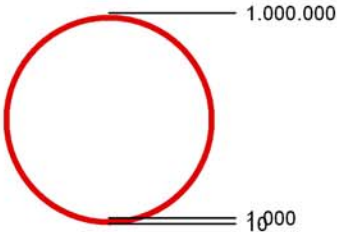



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Local level: LAU2
 Source: www.demo.istat.it resident population, 2010
 Origin of data: National Italian Statistical Office, 2010
 © EuroGeographics Association for administrative boundaries

Legend

Population 1.1.2009



Source: Elaborations of data from the ISTAT database available at <http://demo.istat.it/>.

Though 1/5 of the regional population (4,446,230 in total, on 1 January 2010) is resident in the municipality of Torino (909,538 inhabitants) and about 2/5 in its Metropolitan Area⁴ (1,747,641), Piemonte can be hardly defined as a 'monocentric' region. Many of its eight provincial capital cities, as well as some other towns, maintain their socio-economic importance that is often based on specific industrial activities or agricultural production. Some of them have stricter relationships with external poles than with Torino (e.g. Novara with Milano, Alessandria with Genova) or share the wealth coming from natural resources with the bordering regions (e.g. Verbania, on the shore of Lake Maggiore, which also meets the Italian region Lombardia and the Swiss region Ticino). Other areas have developed their own autonomy by exploiting some local resource (e.g., the large province of Cuneo mainly bases its economy on the production of wines, vegetable and fruit growing, and the industrial transformation of forest products).

2.2 Historical demographic and economic background⁵

In Italy, Piemonte has often been among the forerunner regions. Under the reign of the Savoia family, Piemonte extended into the Kingdom of Italy in the second half of the 19th century. The capital city of the kingdom was then moved from Torino, Piemonte's capital city, first to Firenze and, in 1871, to Roma. The loss of its role as the centre of political power determined the economic and social fortunes of Torino, which, together with Genova and Milano, was one of the first centres of industrialization – in the modern sense – in Italy [Esposito 1992]. In particular, the automotive industry was born in Torino at the end of the 1800s and developed in the first half of the 1900s under various important car makers (FIAT, Lancia, SPA, Cisitalia, etc.) and through several car-body designers famous the world over (Pininfarina, Bertone, etc.).

Piemonte can also be considered a forerunner in terms of demographic behaviour and trends⁶. As regards mortality, despite important internal differences in living conditions between mountain, lowland areas and towns, in 1863-1879 Piemonte was one of the first three Italian regions with the lowest child mortality rates (up to 3 years of age) [Bellettini 1982]. Piemonte was one of the regions with the lowest fertility in Italy in the period 1862-66, and the reduction in its Total Fertility Rate (TFR) to below the substitution level occurred shortly after World War One, in a cross-sectional perspective, or in the female cohorts born in 1906-11, earlier than all the other Italian regions [Livi Bacci 1977]. This was largely due to the interactions with neighbouring France, being more modern in reproductive behaviour. Even before Italy's unification, many migrants, mainly

⁴ There is no official administrative or operational definition of the Metropolitan Area. However, on the regional site (<http://www.regione.piemonte.it/>), regional data are given for a set of 61 municipalities around Torino, including the town of Torino itself, which is called the "Metropolitan Area of Torino".

⁵ This is only a sketch of the demographic and economic history of the Piemonte region. For a general history of Italy and its regions in modern times see Zamagni [1993]. The economic evolution in Piemonte has been analysed by V. Castronovo in many papers: a synthesis can be found in Castronovo [1977]. Important contributions to the study of the Piemontese demographic and socio-economic development since the 1960s' economic boom are gathered in [IRES 2010], where a wide thematic bibliography can also be found, mainly based on the IRES-Piemonte papers produced over fifty years.

⁶ For a sample history of the demographic situation in Piemonte between XVII e XIX century see Del Panta *et al* [2002].

seasonal, used to go from Piemonte, as well as from Liguria and Toscana, to France. From there, they 'imported' attitudes and methods for fertility control now necessary in an industrialising and urbanising society. On the other side, the wide presence of an 'enlightened' aristocracy and of Waldenses and Jews in Piemontese society favoured a lay attitude to the family and reproductive issues [Livi Bacci 1983].

In the internal population moves, as well as in out- and in-migrations, an important role was played by the geomorphologic heterogeneity of the territory and the typological variety of its towns. In a first phase of the industrial development, the shift of population from the Piemontese mountainous and poor areas was able to sustain the agriculture and industrial development all over the plains and the fruitful hills. Actually, in spite of the fast industrial growth, agriculture's abundance and capacity to evolve in Piemonte slowed down sectoral changes in its labour force compared with the regions of Liguria and Lombardia [Castronovo 1977], so that until the mid-1920s agriculture still employed the majority of Piemontese workers [Guarini 1975].

After World War Two, the economic-industrial boom was seen in all the lowland areas of Piemonte, provoking much internal movement in the region and inflows of migrants from other regions, producing a net migration of +416,000 persons between 1951 and 1961 and +406,000 between 1961 and 1971 [Golini 1974: 143]. The immigrants came mainly from the Veneto region and some regions in the South of Italy, above all from Puglia and Sicilia. For the most part, the immigrants settled in the Piemontese provinces of Torino, Alessandria and Novara [IRES-Piemonte 1965]. In fact, the increases in the demand for labour, especially in Fordist manufacturing, in those years largely outnumbered the internal supply, which was held back by a cohort turnover already low because of the limited birth rate in the preceding decades. This mass immigration had important effects on population trends in Piemonte, both directly and indirectly, and they continued over time. The expected fall in population and incipient population ageing were held at bay by the arrival of young immigrants and by a boost to births in the parts of the region provided by the newly-immigrated families that traditionally had more children than families native to the region, at least for a certain length of time following settlement [Gesano 1974; Gesano *et* Golini 1980; Michielin 2003].

The oil crisis of the 1970s hit the Italian automotive industry very hard and, as a result, harmed that sector of Piemonte's industrial system. The Piemontese industry suffered a long crisis, mainly due to the delocalisation of the FIAT plants to other Italian regions and abroad. Besides the settlement incentives in Italy's southern regions and wage differentials in Eastern Europe and South America, the FIAT delocalisation also came after the chaotic situation in the Torino plants caused by frequent and scattered workers' strikes in the early 1980s [Bonazzi 1991].

Although FIAT enjoyed a brief period of strong recovery in the second half of the 1980s, this did not increase employment in equal measure because many parts of the production process had been automated. In 1989, the firm entered a new and more serious period of crisis due to its lack of new models, strategies and investments and because of fierce foreign competition, particularly from Asia [Annibaldi *et* Berta 1999]. Nevertheless, previous decentralization of the FIAT

plants reduced the impact of the more recent crises suffered by the Piemontese economy [Castronovo 1999; Enrietti *et* Lanzetti 2002; Volpato *et* Zirpoli 2006]⁷. FIAT's current recovery of market share is the result of the rolling out of some well-chosen models but, in quantitative terms, the company has already been hit by the global recession and the domestic market is holding up only thanks to government incentives for scrapping obsolete vehicles.

Notwithstanding the presence in Piemonte, and especially in the province of Torino, of numerous upstream and downstream activities of the automotive industry⁸, the industrial system in the region is far from being restricted to the car and lorry production. Factories can be found in the chemical sector, mechanics, textiles and clothing, food industry, etc. Special mention must be made of the electronic industry, driven early on by Olivetti, in the Ivrea district (province of Biella), but also extended to automated machineries and ICT in other parts of the region.

In fact, the industries operating in those branches are often gathered in industrial districts [Vitali 2008], to which the fortunes and misfortunes of the surrounding territories are strictly bound: e.g., the recent crisis of the Cusio area (southern part of the Verbano-Cusio-Ossola province) after the downscaling of kitchenware production in the Omegna district at the end of the 1990s [Ressico 1999] and now worsened by the announced moving abroad of Bialetti, the world-wide famous producer of moka-pots.

Another important industrial district is Biella, devoted to textiles and clothing since ancient times, which experimented with the industrial revolution as a forerunner in respect to the rest of Italy. During the 1970s and 1980s, the sector has undergone profound restructuring in the district, mainly aimed at changing the 'vertical' integration into a 'horizontal' segmentation of productive cycles. In more recent years, the sector suffered important cut-backs in both productive units (-28.1% from 1991 to 2001) and employees (-14.8%) in the Biella district, and this trend has been worsening in the 2000s with an average annual loss of -4.6% productive units in the textiles branch and -1.3% in the clothing one [Maggioni 2008].

A till-now positive connection between a productive district and the surrounding territory can be found in Alba (province of Cuneo), where the Ferrero food industry (original producer of Nutella) began to develop just during World War Two and now is one of the European leaders among the food-and-beverage makers, with factories in various European and non-European countries. The district's success is based on the mutual and positive interactions between the factory and the environment, both natural (industrial transformation of products from the local agriculture and forestry) and social, at the industrial-relation level as well as from a larger societal perspective.

The average dimension of the productive units is quite small in the Piemontese industrial system (4.2 employees in 2001, with only 166 units with more than

⁷ For a thorough chronicle of FIAT, see the paper by Prof. P. Di Toro available on the internet: <http://www.unitus.it/ditoro/Exor-Fiat.pdf> .

⁸ Around 2003, 1,200 firms, employing 74,000 workers, were estimated to work for the FIAT plants in the province of Torino: <http://www.confartigianato.piemonte.it/cjisp/conods.jsp?anno=XXI&numero=4&articolo=speciale>

500 and 90.3% units with less than 6). The last thirty years witnessed progressive reductions in the units' dimension (in twenty years, from 1981 to 2001, the productive units increased by 33%, while the employees only increased by 22%). Part of this trend must be ascribed to the outsourcing policy adopted by the great industry, partly due to the diversification process that especially developed in the 1990s. On the contrary, medium-sized firms are lacking in Piemonte. Thus it faces additional difficulties both in international competition and effective local drivers [CSS 2007].

A large part of productions underwent a crisis immediately after 1990, mainly driven by Italy's recession on the international markets, which in particular hit the Piemontese manufacturing sector [IRES 1993]. In the meantime, since the second half of the 1980s, the regional economy underwent a progressive de-industrialisation and post-industrial transformation [Ferrero *et al* 2010: 26]. The population employed in agriculture declined by about 2/3 from 1971 to 2001 (halving in 1981-2001), those employed in manufacturing and constructions went down by -29% (-23% in 1981-1991) and the service sector grew by +75% (+23% in 1981-1991 and +11% in 1991-2001), while the total employed population remained almost constant, as it happened to the non-agricultural employed population between 1981 and 2001.

The post-industrial sector recently experienced a high point during the 2006 Winter Olympic Games. From their organization and the creation of the necessary infrastructures, the city of Torino, along with specific parts of the region, received a decisive boost to renew and modernize⁹. However it also left a heavy heritage to manage, because of both the financial debt¹⁰ and difficult re-use of some of the structures [Legambiente 2007].

During the recent economic transformation and the following societal changes, once again the demand for labour did not find an adequate response, quantitatively or qualitatively, from the local supply of workers, who are better qualified and with greater pretensions, but whose numbers are tending to fall because the birth rate has been below the substitution level since the early 1970s¹¹. Once again, immigration – this time mainly from abroad – offset the labour force shortages, and the settlement of immigrants in the region partly improved the rate of growth and slowed down the ageing of the population.

⁹ Numerous studies on the economic and territorial effects of the event and its preparation preceded and followed the 20th Winter Olympic Games including: Ocelli [2000]; Guala *et al* Bobbio [2002]; Dansero *et al* [2003]; Segre *et al* Scamuzzi [2004]; Mela *et al* [2006]; Guala *et al* [2007]; and Guala [2009]. 91 municipalities, with about 1.4 million inhabitants, were involved directly (9) or indirectly in the event [De Leonardis 2007: 285-287].

¹⁰ A final budget of -4 million US\$2000 is reported for the local organising committee against a total cost of 1,333 US\$, but the real deficit of the Games had been -33 million US\$ that was balanced by some special public payments [Bondonio *et al* Campaniello 2007: 225-226]. The 'Agenzia Torino', charged with the realisation of the sports facilities and infrastructures, spent 2,208 US\$, State. 429 million US\$ must be added for 'connected public works' and 338 US\$ for 'provisional public works'. Only 2/3 of those costs were financed by the Italian government, while the remaining investments was found locally in the budgets of the Region, Provinces, Municipalities and other public bodies. The private participation had been negligible [*ibid*: 230-237].

¹¹ Actually, in the years from 1964 to 1971, the cross-sectional TFR has been only slightly above 2.1, also because of the young immigrants from other Italian regions.

A threefold perspective is imagined for the regional economy in the 21st century [Buran *et Lanzetti* 2005]: i) to maintain the 'industrial tradition' by rationalising the productive processes and making the productive factors more flexible; ii) to foster the 'new industry', based on high-tech productions, by stimulating R&D and sustaining international trading; iii) to move further towards a 'post-industrial' development by making the Piemontese service sector wider in typology and reference markets.

2.3 Review of the existing studies of demographic and migratory flows in Piemonte

The demographic and migration history of Piemonte has received special attention from scholars because of the intensity of the flows and the speed of events¹². Following the unification of Italy about 150 years ago, there have been at least three phases in Piemonte marking internal movements and migrations to and from 'the rest of the world'.

The first phase, at the end of the 19th and beginning of the 20th century, saw young people emigrating from the internal mountain and hill areas following a deep crisis in agriculture in those areas [Castronovo 1977]. Some of the emigrants took the usual road towards France, others set off for new destinations in South America¹³, and yet others headed for the towns in the plains, where the various industrial systems were springing up¹⁴.

During the Fascist period, during which emigration abroad was also hampered in an attempt to deal with the effects of the Great Depression, the authorities tried to reduce urbanisation, mainly to exercise political and social control over the working class.

The exodus from internal mountain and hill areas started up again after the World War Two, causing the depopulation of the mountains, of the less productive hill areas, and of other areas further away from the centres of industrial development. Actually, also close to the latter mentioned areas, combining part-time farming with employment in manufacturing was only possible in some districts and for particular industries and processes. In general, there was massive urbanisation towards most of the towns, and there was no need this time for large-scale emigration abroad. On the contrary, the fast increasing demand for labour on the part of Piemonte's industrial system was sufficient to attract internal migrants from Veneto and Emilia-Romagna, in the North, and then from Puglia, Sicilia and, in general, from all regions in the South. Flows directed to Piemonte were some of the most intense after the great internal migration in Italy during the 1950s and '60s, mainly headed towards the 'Industrial Triangle' formed by Torino, Milano and Genova [Galeotti 1971; Golini 1974].

¹² For an overview of the studies on the Piemontese emigration see [Reginato *et al* 1999; Corti 2002; Allasino 2010]. Nanni [2010] resumes the IRES-Piemonte studies on population during the last forty years.

¹³ It may be interesting to note the phasing of the Piemontese emigration abroad proposed by M. Reginato and available at http://www.regione.piemonte.it/emigrazione/dwd/dati_stat.pdf.

¹⁴ A compact picture of internal migration in Piemonte and out-migration from Piemonte is given by P. Corti in http://www.asei.eu/index.php?option=com_content&task=view&id=32&Itemid=192.

Part of that immigration replaced the local labour leaving agriculture, which was in any case rapidly mechanizing, but most immigrants came to work in manufacturing and constructions. From the settlement point of view, they made their homes in the dilapidated houses in the old historic centres or, later, in the suburban belts. For a long time, it was very difficult for immigrants to be accepted by the local population, especially immigrants from Southern Italy [Fofi 1964; Bertuglia *et al* 1965].

International migration crept into Piemonte at the beginning of the 1980s, but local scientific awareness only grew by the end of the decade¹⁵. Many of those papers, however, deal with the settlement and integration problems and will be referred to in the relevant chapters.

In the 1990s, net migration was barely positive and could not offset a clearly negative natural change. Indeed, a decline in the population was recorded in five provinces, while only the province of Cuneo showed any growth, but not more than +2.3‰. Today, in all the provinces of the region, besides a notable increase in migration, there has also been a slight moderation in the natural decline as a result of the small increase in births and a death rate that is basically stable [Tursi 2009: 6]. Forecasts have also shown that the ageing process that the region is suffering has only been slightly counterbalanced by the increase in births, but also that the contribution from migration has not modified the trend, although it has slowed it down somewhat [*ibid*: 9].

¹⁵ See Reginato *et* Allasino [1988], Allasino *et al* [1991] and all the bibliography produced in the 1990s and 2000s and reported in Allasino [2010]. Population trends in Piemonte during the second half of the past century are analysed in Bonifazi *et al* [2001].

3 The demographic situation in the Piemonte region and its provinces

The demographic situation of the Piemonte region and its provinces is summarized in Table 1 with reference to the most recent available data: 1 January 2009 for the structural data, and the time period 2002-2009 for the flow data. All the provinces – regardless of their size, relief and economy – have four factors in common:

- i) A share of elderly population (65 years and over) larger than 20% and, in some provinces, even larger than 25%.
- ii) A negative natural change, which from an annual -6.75‰ in the Alessandria province rises to -1.09‰ in the province of Torino. In the suburban municipalities of the Torino Metropolitan Area, however, more births than deaths have still been registered.
- iii) A significant flow of immigrants from abroad which makes net migration positive, reaching up to an annual $+7-9\text{‰}$ in most of the provinces-
- iv) A share of resident foreign population of between 5 and 10%, lower in the north-eastern provinces of Biella and Verbania and – surprisingly – in the suburban belt municipalities of the Torino Metropolitan Area, higher in the municipality of Torino and in the provinces at the eastern regional border, except for the province of Vercelli.

High immigration has kept total population change above zero in the period 2002-2009, except for the tiny province of Biella and, just above zero in the province of Vercelli: in both of these provinces net migration has been lower when compared with the rest of the region. Also the Verbania-Cusio-Ossola province registered a low international net migration, but it was compensated by a higher internal net migration and a natural change less in the negative.

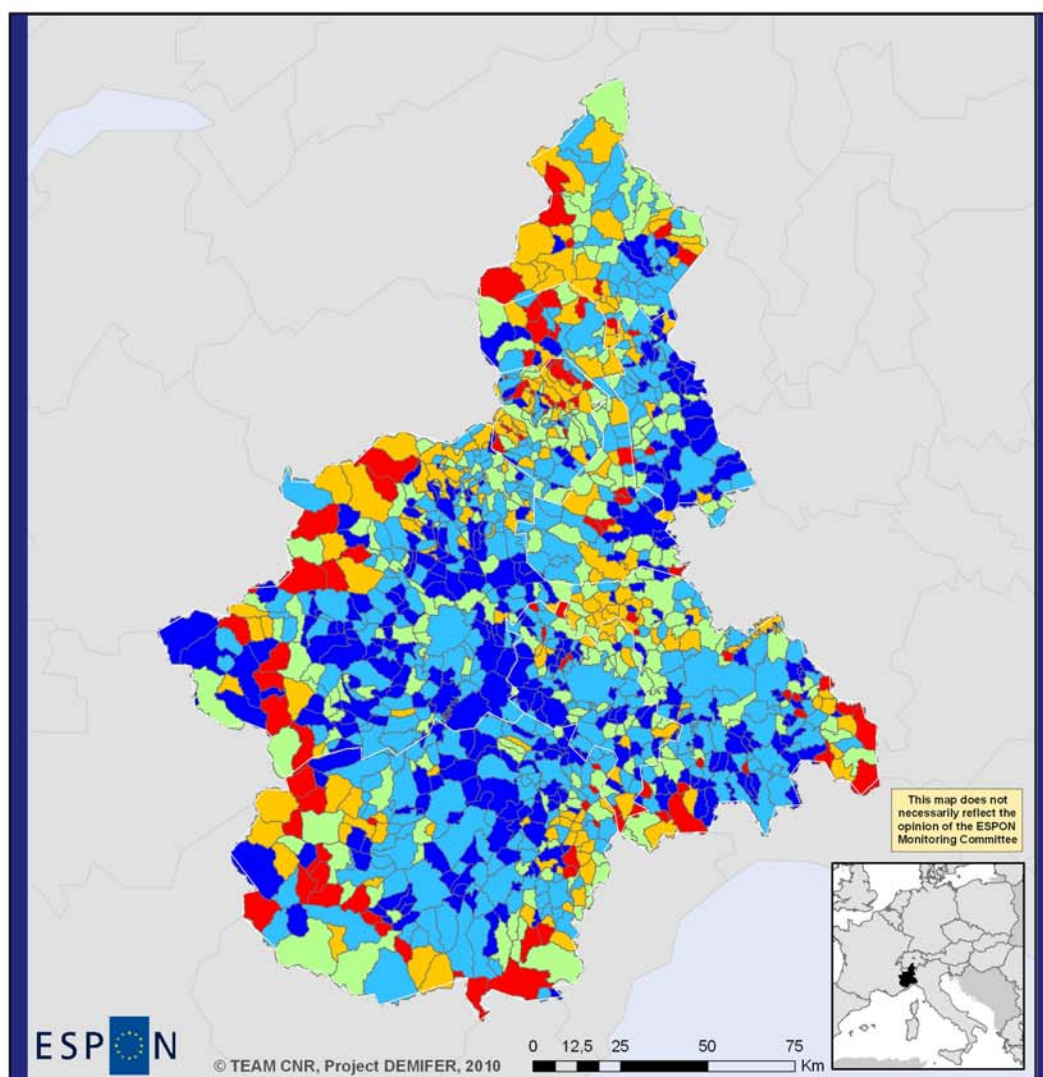
Table 1 Recent main demographics in the Piemonte region and its provinces

<i>Reference areas, Region, Provinces, Torino MA</i>	1/1/2009 resident population			2002-2009 average annual rate (‰)			
	Total (th.)	≥ 65 yrs (%)	Foreign citizens (%)	Total change	Natural change	Internal net migration	International net migration
ITALY	60,045.1	20.1	6.5	+6.06	-0.20	-	+5.85
NW Italy	15,917.4	21.4	8.6	+7.91	-0.86	+1.37	+7.40
Piemonte	4,432.6	22.7	7.9	+5.54	-2.46	+0.63	+7.37
Torino	2.291.0	22.0	8.1	+5.68	-1.09	-1.10	+7.86
Vercelli	180.1	24.6	6.7	+0.81	-5.19	+0.49	+5.50
Novara	366.5	21.1	8.0	+9.40	-1.64	+3.86	+7.18
Cuneo	586.0	22.1	8.3	+7.26	-2.35	+2.53	+7.08
Asti	220.2	24.0	9.6	+7.17	-4.52	+2.83	+8.86
Alessandria	438.7	25.8	8.4	+4.23	-6.75	+3.13	+7.85
Biella	187.3	25.0	5.4	-0.67	-4.98	+0.40	+3.91
Verbania-Cusio- Ossola	162.8	23.2	5.1	+2.92	-3.65	+1.68	+4.90
<i>Municipality of Torino</i>	<i>908.8</i>	<i>23.8</i>	<i>11.3</i>	<i>+2.72</i>	<i>-1.63</i>	<i>-7.73</i>	<i>+12.09</i>
<i>Rest of the Torino Metropolitan Area</i>	<i>833.9</i>	<i>19.7</i>	<i>4.7</i>	<i>+7.41</i>	<i>+1.02</i>	<i>+1.80</i>	<i>+4.35</i>

NB: Due to other formal registrations, natural and migration changes do not sum up to the total population change. In computing the 2002-2009 rates, those formal registrations were anticipated to 1/1/2002.

Source: Elaborations of data from the ISTAT database available at <http://demo.istat.it/>.

Map 2 Municipalities by the average annual rate of population change in the Piemonte region: 2007-2009 (‰)



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Local level: LAU2
Source: elaborations on www.demo.istat.it, 2010
Origin of data: National Italian Statistical Office, 2010
© EuroGeographics Association for administrative boundaries

Legend

Rate of population change 2007 to 2009

- less than -12.0 ‰
- -12.0 to -3.0 ‰
- -3.0 to +3.0 ‰
- +3.0 to +12.0 ‰
- more than +12.0 ‰

Source: Elaborations of data from the ISTAT database available at <http://demo.istat.it/>.

Compared with the other regions in North-Western Italy¹⁶ and with the rest of Italy, Piemonte takes to the extreme the demographics of almost all of the North and Centre of the country: population ageing is marked and increasing and the natural change is completely insufficient to sustain population growth. Foreign immigration and a stable resident foreign population that bring the total population change to plus figures and reduce the effects of ageing oppose this trend, more or less validly.

As it will become evident in the following pages, population increase/decrease at municipal level (Map 2) largely depends on the amount of the registered immigration, which opposes, in a more or less efficacious way, a natural population decrease mainly coming from the low reproductive levels and population ageing.

3.1 Age structure of the population

The population of Piemonte has been facing the challenge of ageing since the first half of the last century. Insufficient reproduction and emigration which, until the end of the 1950s, had depopulated its most internal valleys and its poorest areas, reduced the dimension of the new-born cohorts, so that there were more deaths than births between 1931 and 1961 and the share of young people was fast decreasing in the region.

In the last quarter of the century, there was also ageing 'from the top' due to important decreases in elderly mortality. The natural change remained negative and the population continued to decline in the region as a whole and in almost all of its provinces, starting from the 1970s up to the beginning of this century. Since then, foreign immigration has not only reversed the trend in terms of population change, but has also managed to contain population ageing. Similar dynamics had already been noted in Piemonte in the 1950s and '60s, when large flows of internal immigrants, mainly from Southern Italy, arrived in the industrial developing districts as well as in rich agricultural areas.

The effects of these dynamics on ageing are shown in Table 2 in relation to the elderly population, and in relation to the working-age population in Table 3. The cohort turnover has always moved in favour of an increase in the share of the elderly (65 years and over) and old (80 years and over) population, and in favour of a reduction in the share of the working-age population and its ageing. Reductions in mortality have led to the ageing of the elderly population in the last two decades, while changes in reproductive behaviour have always been fairly insignificant. The 'exogenous' components¹⁷, on the other hand, have countered the effects of population ageing by adding immigrants to the young and working-age population.

¹⁶ North-Western Italy comprises four regions: Piemonte, Valle d'Aosta, Lombardia, and Liguria.

¹⁷ We cannot ignore the effects of corrections to the population register, but it is not always possible to calculate this separately. However, the largest part of the exogenous component comes from net migration.

Table 2 Components of ageing of the elderly population in the Piemonte region by time period

Components	% P65 yrs and over				% P80 yrs and over			
	1952-1961	1962-1971	1992-2000	2002-2008	1952-1961	1962-1971	1992-2000	2002-2008
Initial value	11.4	12.7	17.5	21.3	1.5	1.9	4.4	5.1
Cohort turnover	+2.2	+1.7	+2.8	+2.1	+0.4	+0.4	-0.1	+1.1
Mortality change	+0.1	-0.1	+0.4	+0.4	+0.1	...	+0.1	+0.2
Fertility change	-0.1	...	...	-0.1	...	...	...	...
Mixed endogenous change	...	...	...	+0.1	...	...	...	...
Total endogenous change	+2.2	+1.6	+3.1	+2.5	+0.5	+0.5	+0.1	+1.3
Total exogenous change	-1.0	-0.6	+0.3	-1.1	-0.1	-0.1	+0.4	-0.1
Total change	+1.2	+1.1	+3.4	+1.4	+0.4	+0.4	+0.4	+1.2
Final value	12.7	13.7	20.9	22.7	1.9	2.3	4.8	6.2

Legenda: ... = Less than half of the minimum displayed.

Source: Elaborations based on ISTAT data.

Table 3 Components of ageing of the working-age population in the Piemonte region by time period

Components	% P620-59 yrs				P(20-39 yrs) / P(40-59 yrs)			
	1952-1961	1962-1971	1992-2000	2002-2008	1952-1961	1962-1971	1992-2000	2002-2008
Initial value	58.1	57.5	57.1	55.5	1.01	1.15	1.05	1.02
Cohort turnover	-0.3	-3.7	-0.7	-2.2	+0.02	-0.08	-0.05	-0.24
Mortality change	-0.1	+0.5	-0.3	-0.3	...	+0.05	...	...
Fertility change	-0.3	...	...	-0.2	-	-	-	-
Mixed endogenous change	...	...	...	+0.2	...	...	...	...
Total endogenous change	-0.7	-3.3	-1.0	-2.5	+0.02	-0.03	-0.05	-0.24
Total exogenous change	+0.1	-0.4	-0.3	+1.0	+0.12	+0.03	+0.04	+0.07
Total change	-0.6	-3.6	-1.3	-1.5	+0.14	-0.01	-0.01	-0.16
Final value	57.5	53.9	55.8	54.0	1.15	1.14	1.04	0.85

Legenda: ... = Less than half of the minimum displayed; - = No effect in the time period.

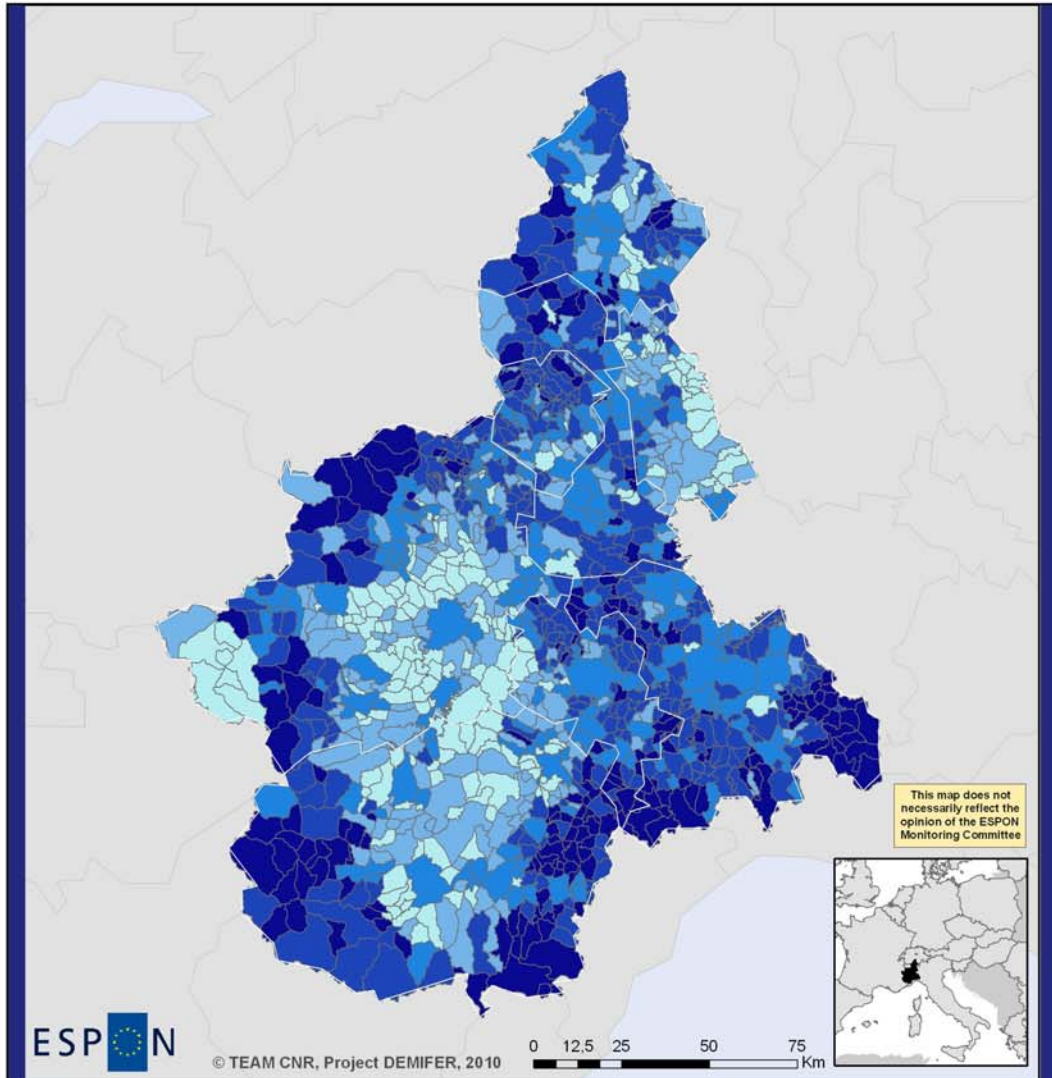
Source: Elaborations based on ISTAT data.

Table 4 Structure of the resident population by age group in the Piemonte region and its provinces: 1st January 1992, 2002, and 2009 (%)

Reference areas, Region, Provinces, Torino MA	0-19 yrs			20-59 yrs			60-79 yrs			80+ yrs		
	1992	2002	2009	1992	2002	2009	1992	2002	2009	1992	2002	2009
ITALY	22.8	19.4	19.0	55.9	55.8	54.9	17.8	20.4	20.5	3.5	4.4	5.6
North-West Italy	19.5	17.0	17.7	58.0	56.4	54.7	18.6	22.0	21.9	3.9	4.7	5.8
Piemonte	18.8	16.3	16.9	57.1	55.5	54.0	19.7	23.1	22.9	4.4	5.1	6.2
Torino	19.5	16.5	17.0	58.9	56.4	54.4	18.0	22.6	22.9	3.6	4.4	5.7
Vercelli	17.4	15.5	15.8	55.2	54.1	53.3	21.8	24.7	23.7	5.6	5.6	7.2
Novara	19.5	16.9	17.4	56.7	56.4	55.5	19.2	21.8	21.9	4.6	4.9	5.9
Cuneo	19.6	18.0	18.3	54.9	54.2	53.6	20.8	22.5	21.8	4.7	5.2	6.3
Asti	17.2	15.7	16.6	53.7	53.6	53.0	13.2	24.4	23.0	5.9	6.4	7.4
Alessandria	15.8	14.0	15.1	54.1	53.3	52.5	23.7	25.8	24.5	6.4	6.9	7.9
Biella	17.7	15.7	16.1	55.5	54.3	52.4	21.7	24.3	24.3	5.1	5.7	7.3
Verbania-Cusio-Ossola	19.0	16.0	16.2	57.5	55.8	54.0	19.3	22.9	23.3	4.2	5.2	6.4
Municipality of Torino	17.7	14.9	15.8	58.5	55.2	54.1	24.8	19.9	23.7	3.9	5.1	6.4
Rest of the Torino MA	22.8	18.2	18.3	60.6	58.7	55.2	14.1	19.9	21.9	2.5	3.2	4.6

Source: Elaborations of data from the ISTAT database available at <http://demo.istat.it/>.

Map 3 Municipalities by the share of elderly resident population (65+ yrs) in the Piemonte region: 1/1/2009 (%)









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Local level: LAU2
 Source: www.demo.istat.it resident population, 2010
 Origin of data: National Italian Statistical Office, 2010
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Legend

Population 65 years and older 1.1.2009 (%)

-  less than 20.0 %
-  20.0 to 22.5 %
-  22.5 to 25.0 %
-  25.0 to 30.0 %
-  more than 30.0 %

Source: Elaborations of data from the ISTAT database available at <http://demo.istat.it/>.

The age structure of the population, however, has suffered from an increase in the share of old people in all provinces, and the trend continues. In the last few years, the increase in the share of the elderly population has stopped or even been reversed, although not in the municipality of Torino or in its metropolitan area (Table 4 and Map 3). Part of this temporary slowdown in population ageing is due to the recent entering of the reduced cohorts born during the World War Two into the age group 65 years and over.

Despite young immigrants, the fall in the share of the working-age population (20-59 years) has continued and, at the beginning of 2009, this age group accounted for just over half of the total population of the region and of its provinces. The share of young population (0-19 years) is now slightly increasing everywhere, after the minimum reached in 2002, although it remains below 20% of total population.

From Map 3 the high share of elderly population in the municipalities on the mountains that circle the region is evident, apart from some exceptions mainly due to ski-sport resorts (e.g. Sestrière) or other tourist attractions. Population ageing, however, also affects large parts of the hills in the southeast.

3.2 Population change and its components

The effects over time of these contrasts between internal demographic dynamics and the direct and indirect additions of population from outside the region are clearly visible when considering population trends from 1992 to 2010 in the provinces of Piemonte (Figure 1). The decrease in most of the provinces in the 1990s (the only provinces to increase population in this period were Novara and Cuneo and the ring municipalities of the Torino Metropolitan Area) was followed by a sharp recovery from 2001 on¹⁸. However, notwithstanding the important immigration from abroad that has joined it, the municipality of Torino could only reverse its trend, but it could not bring its population up to its earlier number. It is worthwhile also to note that the population increases registered in 2009 were generally lower in respect to previous years. We should wonder whether this might be a consequence of the regional economic slowdown connected to the global recession.

The importance of foreign immigration in recent population increases in Piemonte, as in all its provinces (except Biella), seems clear from the cumulative histograms in Figure 2. A positive international net migration defies the natural change that is always negative everywhere¹⁹. The internal net migration²⁰, on the contrary, is only slightly positive in the region, while it is negative in the province of Torino, and especially in its capital city. The provinces of Biella and Verbania-

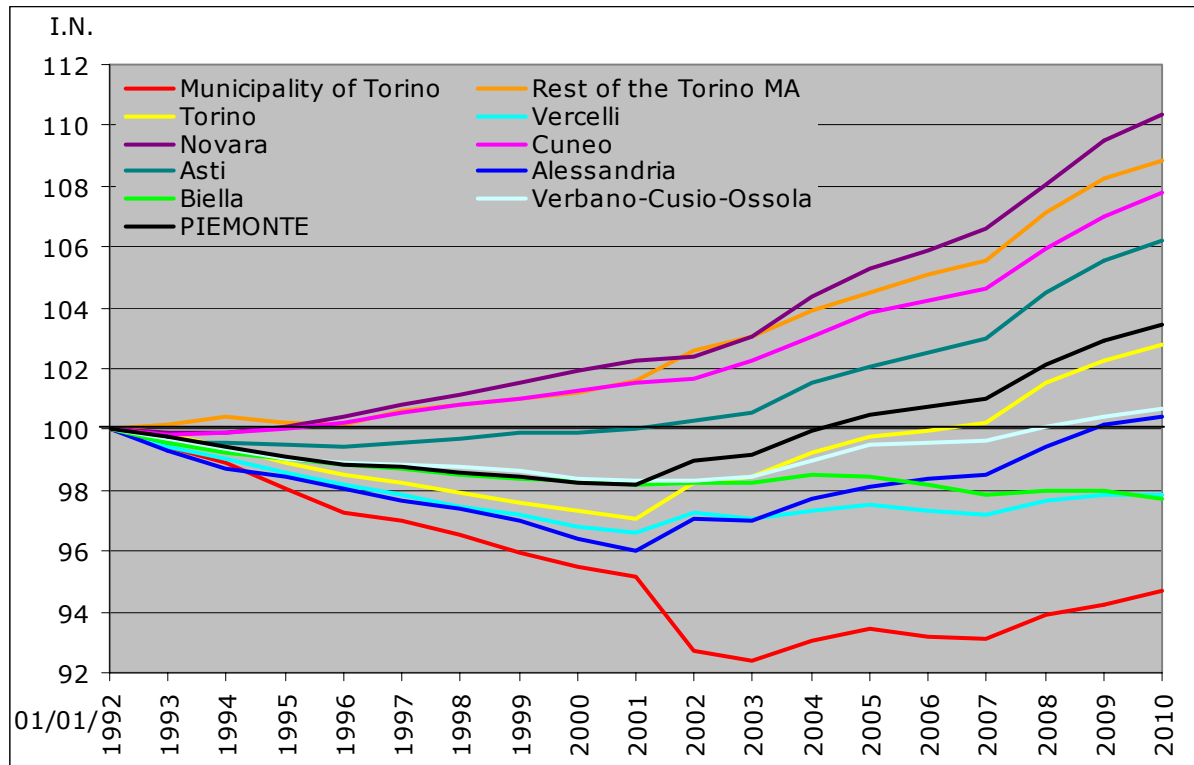
¹⁸ Some undercounting in the 2001 Population Census and the subsequent corrections may have emphasized the increase. The Author has taken part of this factor into account in estimating the 2002-2009 data by anticipating all formal registrations in the time period to 1/1/2002.

¹⁹ The late registration of the foreign resident population after the 2002 regularization (Law 189/2002, known as 'Bossi-Fini Law') should also be taken into account. The yearly variability of the international net migration mainly depends on local efficiency in recording foreigners in population registers after their regularization. An unknown quota of newly registered immigrants could already have been living in the province since an earlier date.

²⁰ The internal net migration is calculated by subtracting the registered outflows to other Italian municipalities from the corresponding inflows.

Cusio-Ossola and the agricultural province of Vercelli have registered a near-zero internal net migration. The provinces of Novara, Alessandria, Asti and Cuneo are attracting a significant amount of interregional migration besides that from abroad.

Figure 1 Total population trends in the Piemonte region and its provinces: 1992-2010 (Index Numbers: Resident population 1/1/1992 = 100)



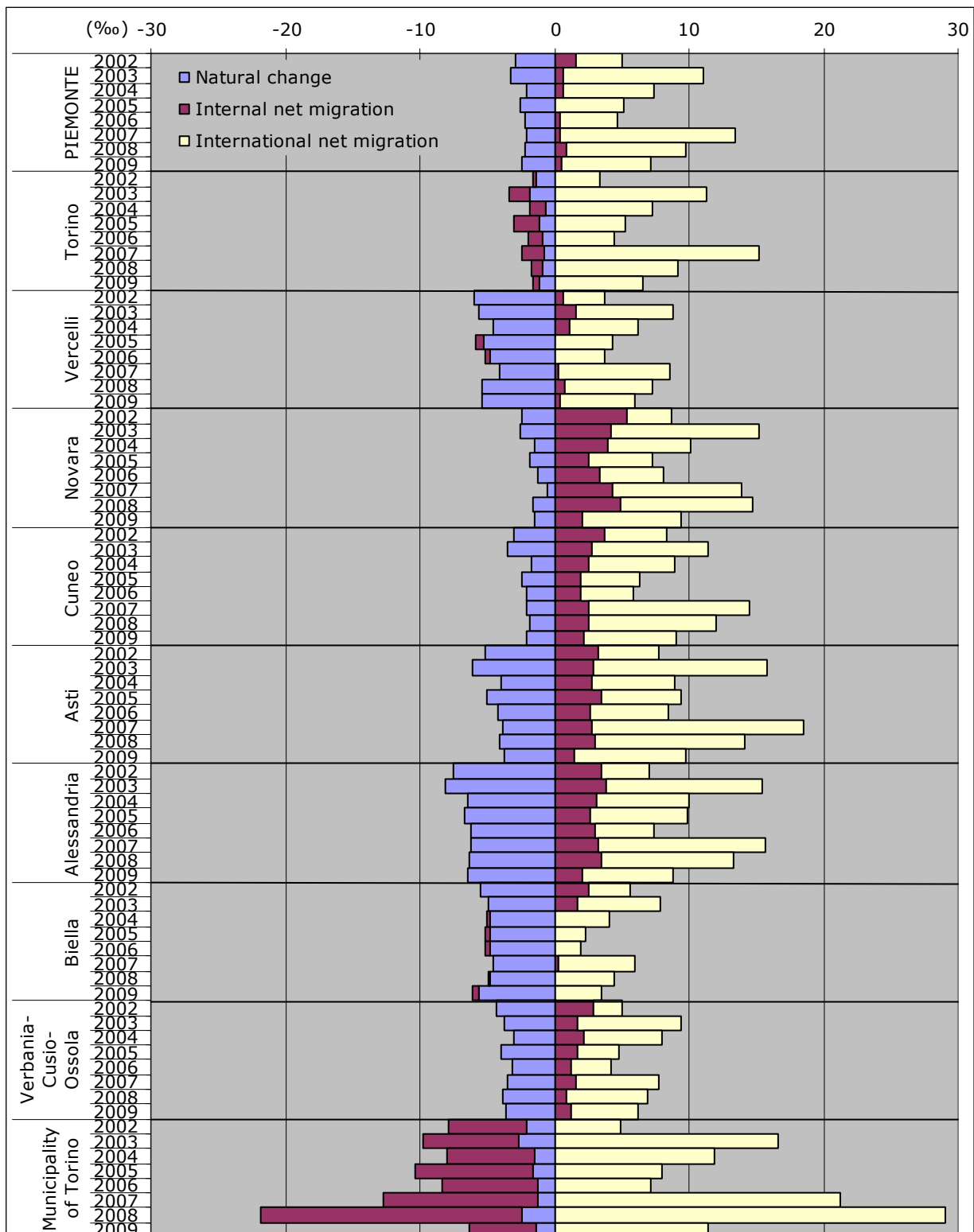
Source: Elaborations of data from the ISTAT database available at <http://demo.istat.it/>.

It is worthwhile noting that in 2009 net migrations, both the internal and international ones, suffered an evident slowdown everywhere, especially in the most dynamic areas: in some of them this slowdown had begun in 2008. Apart from possible reductions in the late registering of foreign immigrants, the current economic crisis may have reduced labour demand and subsequently population mobility.

3.3 Natural change: fertility and mortality

The natural change, which is widely and noticeably negative, depends on the persistently low fertility and on the native population structure, which has aged significantly and which, therefore, does not encourage births and has an increased number of deaths. There are provinces in Piemonte, such as Alessandria, where the number of deaths almost doubles that of births, notwithstanding that life expectancy is not significantly lower there than the Italian average. The fertility levels are even higher than for Italy as a whole in some provinces of Piemonte, but the birth rate is lower than the Italian average because of the small share of women of childbearing age.

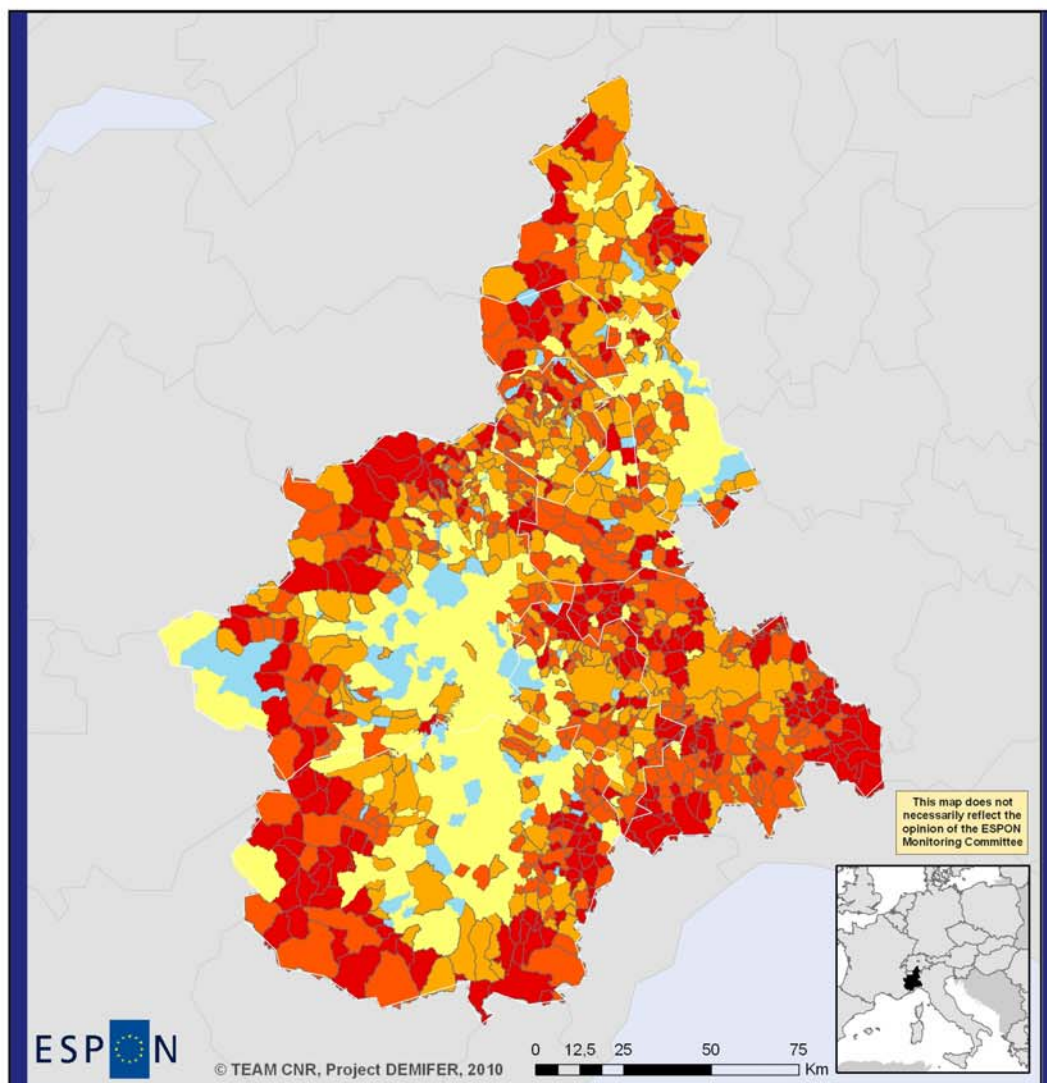
Figure 2 Main components of population change in the provinces of the Piemonte region: 2002-2009



Source: Elaborations of data from the ISTAT database available at <http://demo.istat.it/>.

The effects of population ageing on natural change at a municipal level can be appraised clearly in Map 4, where the lowest rates of natural change largely correspond to the highest shares of elderly population shown in Map 3.

Map 4 Municipalities by the rate of natural change in the Piemonte region: 2007-2009 (‰)



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Legend

Rate of natural change 2007 to 2009

- less than -10.0 ‰
- 10.0 to -5.0 ‰
- 5.0 to -2.0 ‰
- 2.0 to +2.0 ‰
- 2.0 and more ‰

Source: Elaborations of data from the ISTAT database available at <http://demo.istat.it/>.

The birth rate, however, has increased everywhere compared with the 1990s and the first years of the new century (Table 5), reducing the gap between one province and another in the region. The same is true for the Total Fertility Rate (TFR), which reached 1.5 children per woman in the province of Cuneo but is still below 1.2 in the province of Verbano-Cusio-Ossola. As regards the Average Age of Mothers at Childbirth (AAMC), all the provinces are converging on an AAMC that is higher than 30.5 years everywhere, and above 31 years in the provinces of Torino and Verbano-Cusio-Ossola. Fertility began to grow again in Piemonte from 1994, when the TFR reached its lowest point ever of 1.03 children per woman. Since then, the TFR has been growing continuously and had gained 30% up to 2007. Up to 2004 (+20%), the increase was greater for the second birth order (+24%), and afterwards for the first one (+22%). The contribution of foreign immigrants was important [Reginato *et* Barugola 2009]: 1/6 of the 2008 births was due to foreign women in the region (more than 1/4 in the municipality of Torino) and the foreign women's TFR in the region is estimated as being more than double (2.44) that of Italian women (1.20). However, the fertility of the Italian residents in Piemonte has been increasing slightly in the last few years, even if these women continue to have children later, so that their AAMC is now close to 32 years [Tursi 2009: 6].

Table 5 Birth rate, Total Fertility Rate (TFR), and Average Age of Mothers at Childbirth (AAMC) in the Piemonte region and its provinces

Reference areas, Region, Provinces	Birth rate (‰)		TFR (No)		AAMC (yrs)	
	1992-2001	2002-2009	1999	2007	1999	2007
ITALY	9.5	9.5	1.23	1.37	30.3	31.1
North-West Italy	8.4	9.3	1.13	1.40	30.8	31.2
Piemonte	8.0	8.7	1.12	1.35	30.6	31.0
Torino	8.2	9.0	1.11	1.35	30.8	31.2
Vercelli	7.3	7.7	1.07	1.38	30.1	30.7
Novara	8.2	9.1	1.13	1.40	30.4	30.9
Cuneo	8.8	9.2	1.26	1.45	30.3	30.9
Asti	7.5	8.5	1.15	1.40	30.2	30.6
Alessandria	6.6	7.4	0.97	1.27	30.7	30.7
Biella	7.5	7.7	1.10	1.27	30.4	30.8
Verbania-Cusio-Ossola	7.9	8.0	1.03	1.18	30.8	31.3
<i>Province variability (100xCV)</i>	<i>7.89</i>	<i>5.31</i>	<i>7.12</i>	<i>6.17</i>	<i>0.86</i>	<i>0.74</i>

Source: Elaborations of data from the ISTAT database available at <http://demo.istat.it/>.

The death rate has declined a little throughout the region (Table 6). In the presence of an ageing population, only slightly slowed by the effects of immigration, the cause of the decline can be attributed entirely to progress made in reducing mortality, especially as regards the elderly. If we compare the 2007 life tables with those of 1992, we can see that in the provinces of Piemonte there has been a gain in Life Expectancy at Birth (\dot{e}_0) for males of between 4.3 and 6.2 years, and for females of between 2.5 and 3.8 years. The gains in \dot{e}_0 have therefore been greater for males (+6,7%) than for females (+4,3%), but for both genders the gain increases with age, so that male life expectancy at age 60 is 10% higher and for females at the same age it is 5% higher. The variability between male \dot{e}_0 in the various provinces of Piemonte decreased, but it increased for women.

Table 6 Death rate and Life Expectancy at Birth (e_0) by gender in the Piemonte region and its provinces

Reference areas, Region, Provinces	Death rate (‰)		Male e_0 (yrs)		Female e_0 (yrs)	
	1992-2001	2002-2009	1992	2007	1992	2007
ITALY	9.8	9.7	74.0	78.7	80.6	84.0
North-West Italy	10.6	10.2	73.3	78.8	80.7	84.3
Piemonte	11.5	11.2	73.6	78.5	80.6	84.1
Torino	10.1	10.1	74.0	78.8	80.8	84.6
Vercelli	13.8	12.9	72.6	77.2	79.8	83.3
Novara	11.5	10.7	72.7	78.9	80.6	84.3
Cuneo	12.3	11.6	73.5	78.3	80.5	83.9
Asti	14.1	13.0	74.1	79.1	79.8	83.0
Alessandria	15.2	14.1	73.6	77.9	80.6	83.8
Biella	13.2	12.7	72.5	78.6	80.5	83.0
Verbania-Cusio-Ossola	11.7	11.6	72.3	77.9	80.5	83.5
<i>Province variability (100xCV)</i>	<i>12.23</i>	<i>13.10</i>	<i>0.92</i>	<i>0.76</i>	<i>0.44</i>	<i>0.65</i>

Source: Elaborations of data from the ISTAT database available at <http://demo.istat.it/>.

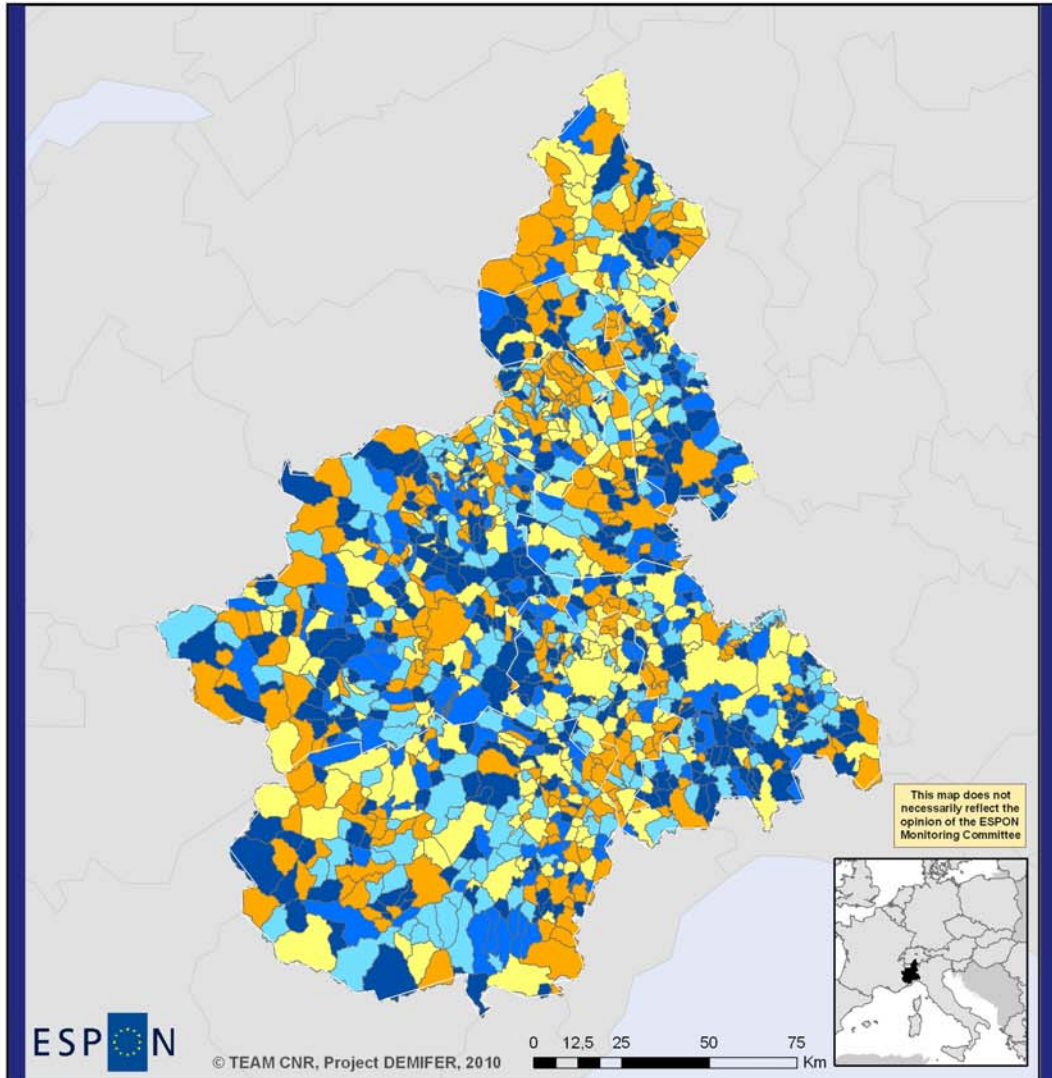
3.4 Net migration and migration flows

The importance of migration for recent population changes in Piemonte and its provinces has already been emphasized (Table 3). Without the addition of immigrants from other parts of Italy (with a balance for recorded arrivals and departures of around +2,750 annually, on average in the period 2002-2009) and especially from abroad (average international net migration of around +32,000 a year in the same period), the region and its provinces would have suffered from a fall in population and undergone an even more rapid ageing process. The territorial distribution of internal net migration is shown in Map 5 at municipality level.

In fact, population mobility was much more intense than that indicated by the net migration figures. An annual average of about 128,600 arrivals from other Italian municipalities was recorded in the Piemontese municipalities' population registers between 2002 and 2009 and the corresponding number of departures recorded was about 125,800. These data, however, also include all the internal mobility within the region and its provinces, dominated by moves from one municipality to another (there are a good 1,206 municipalities in Piemonte!). The average number of recorded arrivals from abroad was around 36,200, and departures abroad averaged about 4,200 each year. This bears witness to the fact that, on the one hand, foreign immigration is still high in Piemonte and, more generally, in Italy as a whole, while, on the other hand, it is difficult to record the departure of foreign immigrants if they leave the country or even the municipality where they were registered.

The classification of flows (both internal and from abroad) can be based on data published by ISTAT for the two-year period 2001-2002 and kindly provided in advance for the years 2003-2007. From them, it is possible to analyse the migration radius (intra-province, extra-province intra-regional, and interregional migrations) and, in parallel, to define the geographical areas involved (provincial capital city, municipalities of its 1st or 2nd ring, and the rest of the province).

Map 5 Municipalities by the rate of internal net migration in the Piemonte region: 2007-2009 (‰)



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Source: elaborations on www.demo.istat.it, 2010
Origin of data: National Italian Statistical Office, 2010
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Legend

Rate of internal net migration 2007 to 2009

- les than -2.0 ‰
- 2.0 to +2.0 ‰
- +2.0 to +6.0 ‰
- +6.0 to +10.0 ‰
- more than +10.0 ‰

Source: Elaborations of data from the ISTAT database available at <http://demo.istat.it/>.

The intra-province flows (Table 7) show that this is the prevalent mobility within all the domestic movements almost everywhere, but this is especially true for the provinces of Torino and Biella, less for Vercelli. In general, in the period 2001-2007, all the provincial capitals registered negative net migration in relation to the rest of the province (especially Novara, Torino, and Vercelli), whereas the point of arrival of the flows could have been the 1st ring (all the provinces, except for Torino, but particularly for Vercelli and Novara), the 2nd ring (all the provinces, except for Cuneo, but particularly for Torino), or even the farthest municipalities (only in the provinces of Torino and Novara). To a certain extent, this shows the degree of expansion reached from the main centre and the degree of demographic 'saturation' already suffered by the various areas.

Table 7 Intra-province migration in the Piemonte region and its provinces: average 2001-2007

Region, Provinces	Mobility rate (‰)	% of total internal		Prevalence index ^(a)			
		in-migration	out-migration	Province capital city	1 st ring municipalities	2 nd ring municipalities	Rest of the province
Piemonte	19.0	68.7	68.9	-16.4	-0.3	+7.0	+4.7
Torino	20.8	77.5	73.9	-19.7	-4.5	+11.6	+9.2
Vercelli	12.2	45.7	45.4	-14.2	+16.4	+6.0	-0.7
Novara	16.9	53.6	59.6	-24.1	+14.8	+4.3	+1.5
Cuneo	18.1	67.6	71.8	-7.5	+5.5	-0.9	-0.1
Asti	14.5	50.6	54.1	-2.8	+3.1	+3.4	-1.8
Alessandria	15.5	57.2	59.9	-5.1	+2.1	+1.5	-0.1
Biella	24.7	72.9	73.2	-6.7	+4.1	+1.6	-1.1
Verbania-Cusio-Ossola	18.0	65.7	69.1	-5.1	+3.6	+5.2	-2.9

Notes: ^(a) Prevalence index = $100 \times (I - E) / (I + E)$.

Source: Elaborations of data drawn from ISTAT (2006). *Movimento migratorio della popolazione residente. Anni 2001-2002*. Data for the following years have been graciously provided.

Population mobility from one Piemontese province to another has not been intense, on average, between 2001 and 2007 (Table 8). Only the provinces of Vercelli and Asti have registered higher rates and shares of internal flows, but only the latter one had a positive net migration from those inter-province flows.

Table 8 Inter-province, intra-region migration in the Piemonte region and its provinces: average 2001-2007

Region, Provinces	Rate (‰)		% of total internal		Prevalence index ^(a)			
	In-migration	Out-migration	in-migration	out-migration	Province capital city	1 st ring municipalities	2 nd ring municipalities	Rest of the province
Piemonte	3.0	3.0	10.8	10.8	-5.5	-6.6	-1.5	+6.2
Torino	1.5	2.2	5.7	7.8	-9.9	-28.8	-22.7	-11.6
Vercelli	8.3	8.2	31.1	30.4	-5.0	+5.4	-4.7	+2.9
Novara	3.1	2.8	9.8	9.9	+1.0	+9.1	-2.3	+6.5
Cuneo	4.3	3.2	16.0	12.5	-0.5	+16.1	+12.7	+16.8
Asti	9.5	7.2	32.9	26.9	+3.6	+11.8	+17.8	+15.7
Alessandria	2.7	2.4	10.0	9.2	-0.8	+3.0	+7.8	+9.4
Biella	4.5	4.1	13.4	12.1	+9.8	+4.1	+1.3	+2.6
Verbania-Cusio-Ossola	2.7	2.6	9.8	9.9	+2.6	-2.7	+3.0	+2.0

Notes: ^(a) Prevalence index = $100 \times (I - E) / (I + E)$.

Source: Elaborations of data drawn from ISTAT (2006). *Movimento migratorio della popolazione residente. Anni 2001-2002*. Data for the following years have been graciously provided.

There were few differences between inter-province and intra-province migrations in 2001-2007, especially regarding the Torino province, which suffered negative net migration in all the geographical areas under consideration here. In most of the other provinces the 1st ring municipalities benefited from the more positive net migration caused by this particular type of flow, but many provincial capitals still registered negative net migration. The inter-province urbanization flows, if they still occur, seem to settle in the rings around the capital cities. This is perhaps for economic reasons or due to a preference for the type of housing and surrounding environment.

In 2001-2007, a little more than 1/5 of Piemonte's internal migration was to and from the other regions of Italy in equal measure (Table 9), and the net balance was virtually nil, as in almost all of Piemonte's provinces, with the exception of Torino, which suffered a negative inter-regional net migration, and Novara and Verbania-Cusio-Ossola, which registered a positive one. The latter, together with the South and the West coastlines of Lake Maggiore, may attract elderly and well-off immigrants. By contrast, Novara, which borders with Lombardia and participates in its industrial development and services, still attracts economic migrants from areas of Italy suffering from lack of labour demand for both general and skilled workers. In this particular case, the flows have arrived throughout the whole province. In other cases, the flows have mainly been directed to the provincial capital cities. It is interesting to note that all the areas in the province of Torino suffer negative net migration along with the other Italian regions. This is a situation far different from the past immigrations in the 1950s throughout the 1970s, which may account for some return migrations of former immigrants who are now retired from work.

Table 9 Inter-region migration in the Piemonte region and its provinces: average 2001-2007

Region, Provinces	Rate (‰)		% of total internal		Prevalence index ^(a)			
	In-migration	Out-migration	in-migration	out-migration	Province capital city	1 st ring municipalities	2 nd ring municipalities	Rest of the province
Piemonte	5.7	5.6	20.5	20.4	-0.4	...	-2.8	+2.3
Torino	4.5	5.2	16.8	18.3	-3.6	-11.0	-7.7	-10.0
Vercelli	6.2	6.5	23.2	24.2	+1.1	-7.0	-7.2	-3.5
Novara	11.5	8.6	36.5	30.5	+7.7	+19.3	+14.1	+16.4
Cuneo	4.4	4.0	16.4	15.7	+8.5	+3.5	+13.6	+2.5
Asti	4.7	5.1	16.4	19.1	+0.9	-11.1	-5.6	-6.0
Alessandria	8.9	8.0	32.9	30.9	+2.6	+5.1	-13.7	+14.6
Biella	4.6	4.9	13.7	14.6	+0.2	-4.7	-8.0	-2.9
Verbania-Cusio-Ossola	6.7	5.5	24.5	21.0	+10.8	+20.3	+8.3	+4.3

Notes: ^(a) Prevalence index = $100 \times (I - E) / (I + E)$.

Legenda: ... = Less than half of the minimum displayed.

Source: Elaborations of data drawn from ISTAT (2006). *Movimento migratorio della popolazione residente. Anni 2001-2002*. Data for the following years have been graciously provided.

For the immigration from abroad it is preferable to analyse the average data for 2001-2002 and 2006-2007 separately (Table 10). The first time period precedes the large regularisation of foreign migrants issued in 2002, which made the number of new, but probably late registrations (in-migrations), grow exceptionally. 2006-2007 should be at the end of that process.

Table 10 In-migration from abroad to the Piemonte region and its provinces: average 2001-2002 and 2006-2007

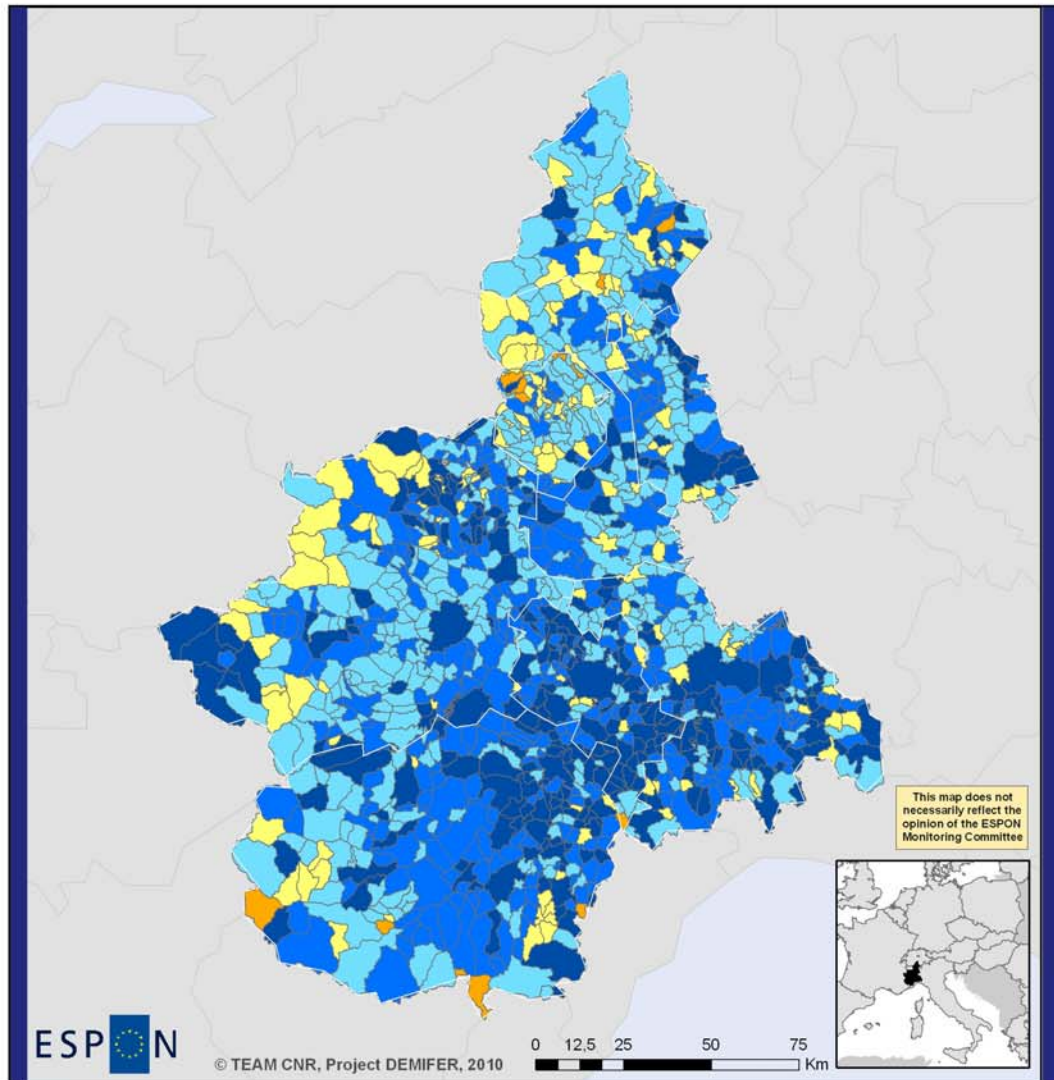
Region, Provinces	In-migration rate from abroad (‰)	Foreigners in in-migration from abroad (%)	Foreign in-migr. out of total in-migr. (%)			
			Province capital city	1 st ring municipalities	2 nd ring municipalities	Rest of the province
<i>Average 2001-2002</i>						
Piemonte	3.8	84.5	5.8	6.2	21.7	10.7
Torino	3.8	83.3	4.0	3.4	14.9	16.6
Vercelli	3.0	79.3	2.1	5.4	31.6	4.3
Novara	3.7	84.9	8.5	3.2	30.5	6.8
Cuneo	4.7	88.6	15.6	16.3	42.6	1.9
Asti	5.0	88.9	8.8	11.7	24.4	11.3
Alessandria	3.6	86.9	9.9	10.8	18.1	6.6
Biella	3.4	80.7	5.8	6.0	10.0	10.3
Verbania-Cusio-Ossola	2.8	74.0	7.9	7.2	9.1	5.4
<i>Average 2006-2007</i>						
Piemonte	9.4	94.7	15.4	13.5	39.5	21.8
Torino	10.7	95.2	13.5	11.4	35.1	32.1
Vercelli	6.7	92.4	5.7	15.7	53.1	9.6
Novara	7.7	94.1	17.2	5.8	50.5	12.2
Cuneo	8.6	94.9	23.7	24.1	57.0	4.1
Asti	10.8	95.6	20.1	24.7	44.9	16.8
Alessandria	8.3	95.8	26.7	21.0	36.5	12.3
Biella	5.0	89.0	10.0	7.5	13.4	13.7
Verbania-Cusio-Ossola	5.7	86.1	16.6	11.0	18.6	12.6

Source: Elaborations of data drawn from ISTAT (2006). *Movimento migratorio della popolazione residente. Anni 2001-2002*. Data for 2006-2007 have been graciously provided.

In 2001-2002, Asti and Cuneo were the provinces most interested by international migration, while Torino fell within the regional average. In general, foreigners accounted for about 79-89% of international migration, while in the province of Verbania-Cusio-Ossola 1/4 were Italians, presumably return migrants for the most part. The proportion of foreign immigration in all immigration in the various provincial areas considered varied considerably. In general, however, the highest proportion of foreign immigrants was found in the 2nd ring, where low-cost housing was available not too far away from the provincial pivot.

In 2006-2007 the panorama changed considerably. The immigration rate from abroad grew everywhere, and particularly in the provinces of Asti and Torino. The share of foreigners in the flows from abroad became higher than 90%, except for the provinces of Biella and Verbania-Cusio-Ossola. The municipalities in the 2nd ring remained the most hit by foreign immigration as measured in percent of total immigration: for some provinces (Cuneo, Vercelli, and Novara) foreign immigrants were the majority in the flows headed to the municipalities in the 2nd ring. The external municipalities of the Torino province have been heavily engaged in the foreign immigration. The territorial distribution of international net migration is shown in Map 6 at municipality level.

Map 6 Municipalities by the rate of international net migration in the Piemonte region: 2007-2009 (‰)









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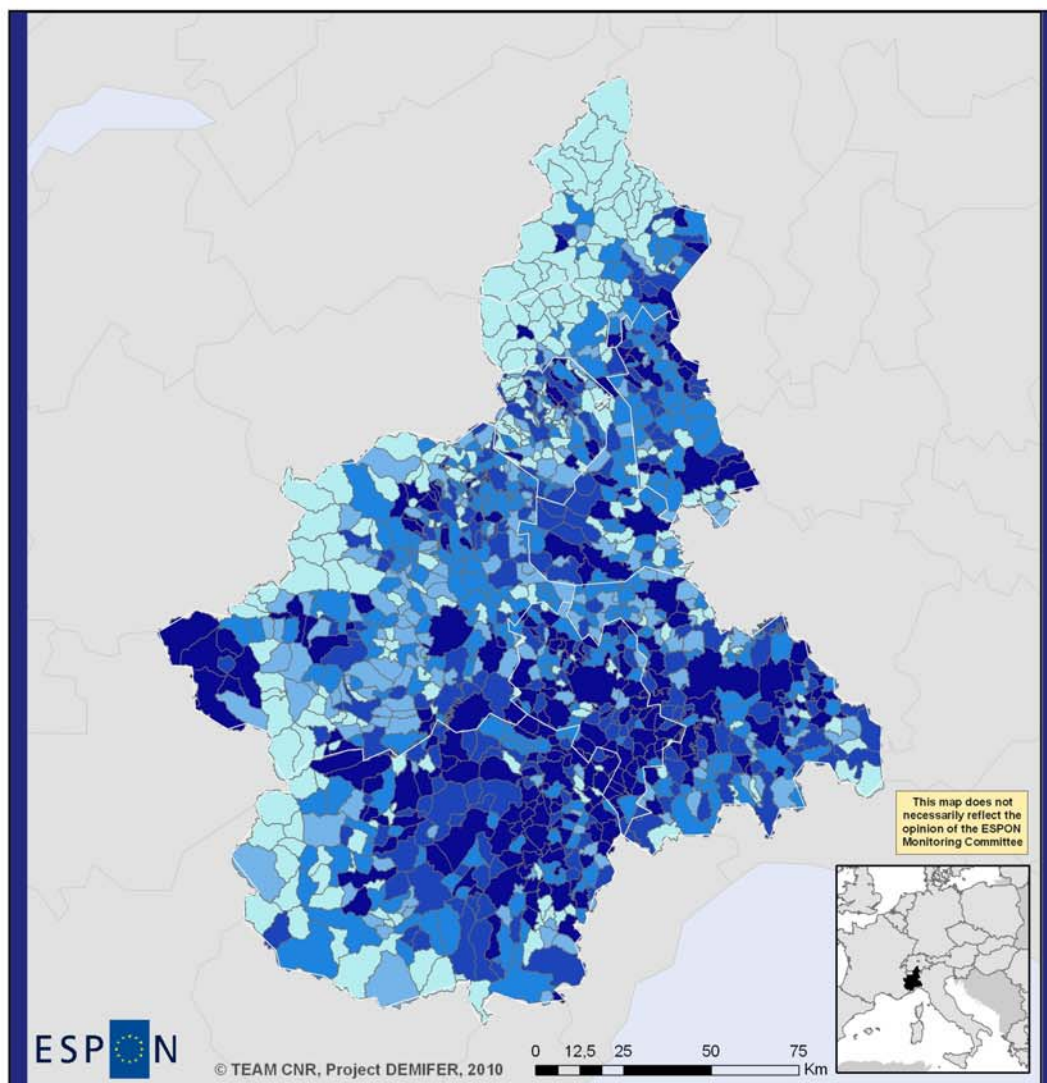
Legend

Rate of international net migration 2007 to 2009

-  less than -2.0 ‰
-  -2.0 to +2.0 ‰
-  +2.0 to +6.0 ‰
-  +6.0 to +10.0 ‰
-  more than 10.0 ‰

Source: Elaborations of data from the ISTAT database available at <http://demo.istat.it/>.

Map 7 Municipalities by the share of foreign resident population in the Piemonte region: 1/1/2009 (%)

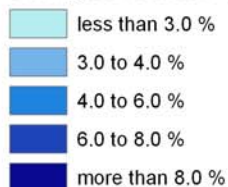


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Local level: LAU2
Source: www.demo.istat.it resident population, 2010
Origin of data: National Italian Statistical Office, 2010
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Legend

Foreign residents 1.1.2009 (%)



Source: Elaborations of data from the ISTAT database available at <http://demo.istat.it/>.

3.5 Presence of foreign migrants: their provenance and demographic characteristics

On 1 January 2009 there were 351,112 foreigners who resided in Piemonte, i.e. 7.9% of its total resident population²¹. There were several other regions with larger shares of foreign residents in Italy, including the bordering Lombardia (9.3%). Nevertheless, the share was particularly large in many provinces in Piemonte (9.6% in Asti, in particular) and in the Torino municipality (12.6%).

Map 7 shows the scattered concentration of the presence of foreign residents as share of total population. We must consider that many municipalities are very small in population, so that the casual presence of few immigrants can make that share be high. However, besides Torino and its surroundings, resident immigrants are more present in the hilly and mountainous municipalities in the south of the region, apart from a nucleus in the western mountains that borders with France. Here we find the most famous ski-sport resorts like Sestrière.

The characteristics of the foreign resident population (Table 11) indicate the accumulation of young immigrants taking root where they reside or, at least, where for the most part they are settled in a semi-permanent way.

Table 11 Some features of the foreign resident population in the Piemonte region and its provinces: 1/1/2009

Reference areas, Region, Provinces	% foreigners in				% Households		House- holds settle- ment index ^(b)	% foreign pop. born in Italy
	total resid. pop.	0-17 yrs pop.	2008 new- borns	2008 in-mi- grants (a)	with at least one for- eigner	with a foreign head		
ITALY	6.5	8.5	12.6	36.5	7.6	6.2	0.95	13.3
North-West ITALY	8.6	12.8	18.3	37.2	9.1	7.3	0.85	14.5
Piemonte	7.9	12.0	17.3	35.7	8.2	5.6	0.70	13.3
Torino	8.1	11.7	16.9	34.5	8.6	5.0	0.63	12.7
Vercelli	6.7	11.8	15.7	30.8	6.7	5.2	0.78	16.7
Novara	8.0	11.9	17.8	36.8	8.1	6.5	0.81	14.7
Cuneo	8.3	12.5	18.3	40.9	8.3	6.8	0.81	14.7
Asti	9.6	15.3	23.7	42.4	9.0	7.5	0.78	13.1
Alessandria	8.4	14.7	18.9	38.5	7.9	6.3	0.75	12.2
Biella	5.4	8.9	13.1	24.4	5.4	4.0	0.74	15.5
Verbania-Cusio- Ossola	5.1	6.4	9.9	31.0	6.1	4.8	0.93	10.7
<i>Municipality of Torino</i>	<i>12.6</i>	<i>20.0</i>	<i>27.0</i>	<i>56.5</i>	<i>12.7</i>	<i>6.2</i>	<i>0.49</i>	<i>13.3</i>

NB: Most of the reference data are estimated by ISTAT.

Notes: ^(a) Both internal and international immigrants; ^(b) Ratio between the percentage of households with a foreign head and the percentage of foreigners in total resident population.

Source: Elaborations of data from the ISTAT database available at <http://demo.istat.it/>.

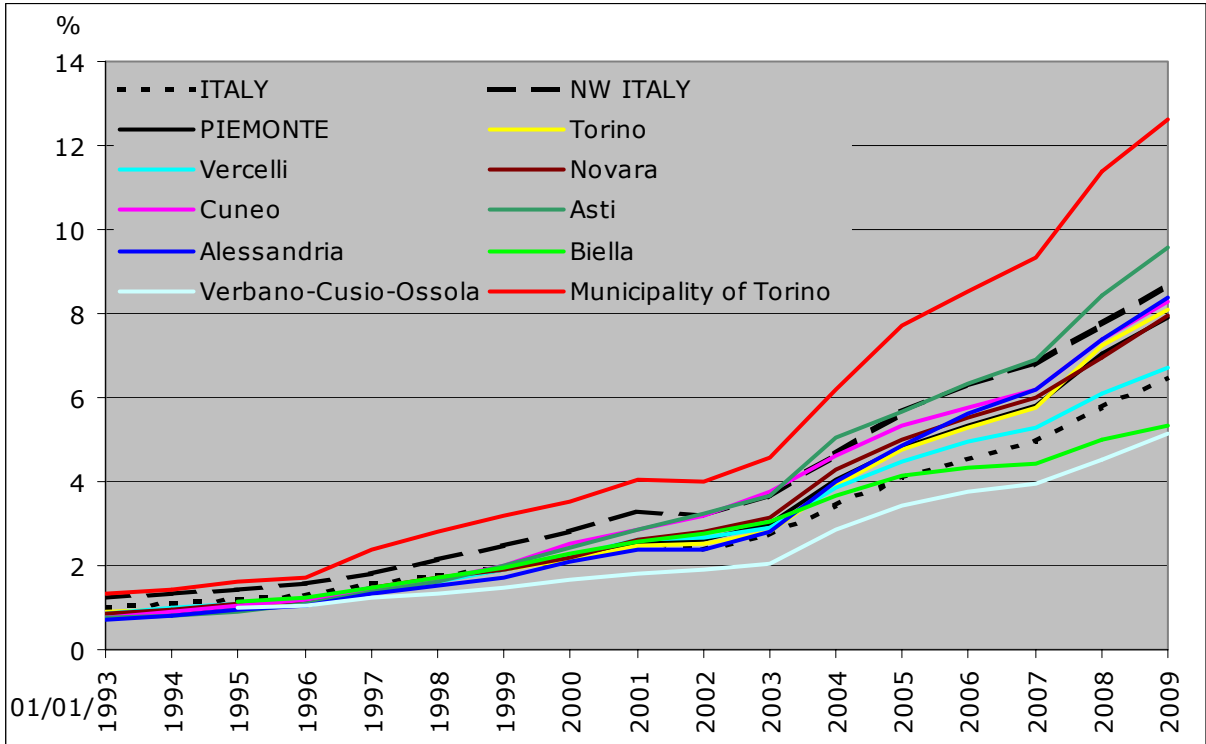
The large shares of young foreigners (0-17 years), foreign newborns and of foreigners born in Italy, demonstrate the vitality of immigration in most of Piemonte's provinces. In particular Asti, Alessandria and Cuneo. The particular type of immigration can explain the lower percentages in the Verbania-Cusio-

²¹ Following the evaluations produced by ISMU, 32,000 or so irregular extra-EU migrants should be added in Piemonte on 1 January 2009 and about 14,000 in the province of Torino. Those numbers were estimated to be lower in respect to 2008. For an earlier analysis on the presence of foreign migrants in Piemonte see Allasino [2000].

Ossola province – there is large demand for middle-aged women as housekeepers and nurses for elderly care. The share of households with a foreign head and the corresponding household settlement index would also confirm that foreign immigrant families are taking root in Piemonte, if not for the fact that single-member households or 'living together' households, formally headed by a foreigner, are included as well.

Apparently, the history of the foreign presence in Piemonte, as in most of the Italian regions, is a very recent one: the share of foreign residents grew sharply only from 2002-2003, even if the trend had begun to grow more slowly before this date (Figure 3).

Figure 3 Trends of the share of resident foreign population in the Piemonte region and its provinces: 1993-2009 (%)



Source: Elaborations of data from the ISTAT database available at <http://demo.istat.it/>.

It is impossible to say how many new arrivals there were after 2002 and how many were simply late registrations of immigrants who had arrived previously, registered after that date thanks to the new migrant regularization rules²². Growth in the share of resident foreign population in Piemonte's provinces seems

²² By elaborating data drawn from the Ministry of the Interior, the ISMU database states the number of requests for regularisation after the DL 195/2002 in Piemonte was about 53 thousand. A little less than 1/2 were Romanians and, in the second group, 1/5 of males were from Morocco and 1/8 of females from the Ukraine. Since only payroll employees could regularise their stay, in Piemonte the manual workers were the most numerous group, followed by masons and labourers: http://www.ismu.org/ISMU_new/upload/files/20040916131658.xls. In 2009, another regularisation was launched, but limited to housekeepers and private caregivers (*badanti*, in the Italian language): Torino was the 6th province in Italy for the number of requests (about 8.300), but only 43rd if related to the resident population, surpassed in Piemonte by the province of Novara.

to be fairly similar to average trends in Italy, but in general slightly less than the average for North-Western Italy. Only Asti, in recent years, and the Torino municipality had stronger growth, whereas in the two small provinces of Biella and Verbano-Cusio-Ossola, the share of the foreign resident population has grown less, and at the start of 2009 it was at just over 5%.

Foreign residents in Italy have very diversified citizenship characteristics: 195 nationalities were represented on 1 January 2009, 147 of which counted more than one hundred members. In Piemonte as well, the citizenship of foreign residents was very diverse, with 172 nationalities, 84 of which had one hundred or more members. Nevertheless, most of the foreign resident population is concentrated in a few communities. Half of the foreign people who resided in Piemonte at the beginning of 2009 belonged to only two communities – 121,150 Romanians and 58,811 Moroccans. By adding two more nationalities (42,321 Albanians and 11,422 from China) we come to 2/3 of the total. With four more nationalities (10,443 Peruvians, 7,169 from Macedonia, 7,112 from Moldavia, and 6,795 Ukrainians) we cover more than 3/4.

However, because of the 'migration chains' and the labour specificity of some ethnic groups, the situation may be different at lower territorial levels. The descending order and the concentration in the most populous communities were quite different in the provinces of Piemonte, and also quite different from the average in Italy and North-Western Italy. Even if we consider only the geographical areas of citizenship we have very diverse situations (Table 12).

Table 12 Foreign resident population in the Piemonte region and its provinces by geographical area of citizenship: 1/1/2009 (row %)

<i>Reference areas, Region, Provinces</i>	ESPON Cs		Eastern Europe, Balkans	Non ESPON MDCs	Non ESPON MENA Cs	Other LDCs
	Total	EU NACs				
ITALY	29.4	24.9	23.8	0.8	16.6	29.5
North-West ITALY	25.1	20.7	19.0	0.6	20.5	34.8
Piemonte	40.2	36.4	19.8	0.4	20.4	19.2
Torino	50.8	47.7	10.5	0.5	18.0	20.2
Vercelli	24.0	21.8	25.8	0.5	29.6	20.1
Novara	16.8	13.0	28.2	0.4	25.6	29.1
Cuneo	29.7	25.9	30.4	0.3	22.1	17.4
Asti	34.7	31.3	40.3	0.3	16.6	8.0
Alessandria	31.7	28.8	30.3	0.4	20.8	37.6
Biella	25.5	21.3	17.3	0.4	36.3	20.5
Verbania-Cusio-Ossola	25.8	14.8	30.4	0.6	17.8	25.4
<i>Municipality of Torino</i>	<i>45.8</i>	<i>42.5</i>	<i>9.1</i>	<i>0.4</i>	<i>20.4</i>	<i>24.2</i>

NB: Most of the reference data are estimated by ISTAT.

Legenda: EU NACs = New Accession Countries to the European Union (Bulgaria, Czech Republic, Cyprus, Estonia, Latvia, Lithuania, Hungary, Malta, Poland, Romania, Slovenia and Slovakia); MDCs = More Developed Countries (all regions of Europe plus Northern America, Australia/New Zealand and Japan); MENA Cs = Middle East and North Africa Countries (Algeria, Bahrain, Djibouti, Egypt, Iran, Iraq, Israel, Jordan Kuwait, Lebanon, Libya, Malta, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates, West Bank and Gaza, Yemen); LDCs = Less Developed Countries.

Source: Elaborations of data from the ISTAT database available at <http://demo.istat.it/>.

Piemonte could seem to be more integrated in the ESPON area than the rest of North-Western Italy. In reality, however, it is less integrated with the EU-15, and much more in line with the EU's New Accession Countries (NACs), especially because of the strong presence of Romanians. This is particularly true in the

municipality and province of Torino²³. In percentage, only the lake province of Verbania-Cusio-Ossola hosts more foreign residents who are citizens of one of the EU-15 countries, allowing for the conjecture of a retirement migration in the area favoured due to its attractive landscape and climate. In the provinces of Cuneo, Asti and Alessandria, a significant number of Albanians (10,611, 4,535, 7,840, respectively) have settled after the large inflows from Albania in the 1990s [Allasino *et* Ricucci 2003]. For this reason, the share of citizens from Eastern Europe and the Balkans is particularly high there. In Verbania-Cusio-Ossola, the same large share from Eastern Europe was mainly due to an inflow of mainly female migrants from the Ukraine (1,073, the most numerous group at the beginning of 2009), who do house work for families or in the communities.

The effects of the 2002 regularization of immigrants had similar effects on the 2003-2009 change in the citizenship composition of the foreign resident population in Piemonte as compared with North-Western Italy and the country as a whole. The presence of people from Europe's NACs increased six fold, owing to the accession of these countries into the EU and, partially, to the Schengen area during this period, while citizens from the other East European and the Balkan countries increased less than 60%. The overall increase, however, was higher in Piemonte (+80%, against +50% in Italy and North-Western Italy), and particularly in the province of Torino where the foreign resident population more than doubled between 2003 and 2009.

The effects of the recent global crisis cannot be appreciated from these data, but we must recall the slowdown of immigrant registration from abroad from 2008 to 2009: -23% in Piemonte as a whole (against -17% on average in Italy, -12% in North-Western Italy and -5% in Lombardia), with a maximum of -27% in the province of Alessandria and a minimum of -14% in that of Vercelli; in the province of Torino (-24%), the surrounding municipalities of the Metropolitan Area suffered the most (-32%), while in the municipality of Torino the 2008-2009 decrease in immigrants from abroad was only -19.4%.

Table 13 Demographic structure of the foreign resident population in the Piemonte region and its provinces: 1/1/2009

Reference areas, Region, Provinces, Torino MA	M / F (%)	Average age (yrs)		20-39 yrs (%)		40-59 yrs (%)	
		M	F	M	F	M	F
ITALY	96.8	30.5	32.1	46.2	45.9	25.0	27.0
North-West ITALY	102.8	30.2	31.0	45.8	46.1	25.2	25.0
Piemonte	95.6	30.0	31.3	46.7	47.7	24.3	25.1
Torino	94.6	30.0	31.2	48.2	49.5	24.5	25.3
Vercelli	95.4	30.0	31.3	44.2	44.8	25.3	26.1
Novara	101.7	30.2	31.7	45.8	44.5	24.4	25.9
Cuneo	99.9	29.6	30.5	44.9	45.9	23.0	23.5
Asti	101.5	30.0	30.9	45.7	47.9	23.3	23.0
Alessandria	94.3	29.9	31.2	45.0	46.8	24.0	23.9
Biella	85.6	30.0	32.6	41.8	45.2	24.7	26.6
Verbania-Cusio-Ossola	78.3	32.8	36.1	43.2	41.0	26.8	34.4
Municipality of Torino	98.9	30.5	31.2	48.1	48.8	25.5	25.5
Rest of the Torino Metropolitan Area	85.6	29.3	31.1	48.8	51.1	22.9	24.7

Source: Elaborations of data from the ISTAT database available at <http://demo.istat.it/>.

²³ On the presence of the Romanians, either gipsy Rom or immigrants, in the province of Torino see Saletti Salza [2009], Ambrosini *et al* [2008], Ponzio [2005].

The demographic structure of the foreign resident population in Piemonte confirms that, overall, immigration is gender-balanced (95.6 males per 100 females; Table 13) and there is a concentration in the younger working ages (20-39 years). However, these characteristics are not always found in all provinces, or as regards the different nationalities that make up the foreign population in the region. For example, in the province of Verbano-Cusio-Ossola only 78 foreign males are resident for every 100 foreign females and more than 1/3 of the latter ones are in a higher working-age band (40-59 years): the demand for domestic work and care of the elderly attracted older women to migrate there from the countries of Eastern Europe.

This kind of selection can be found by analysing the demographic structure of foreigners resident in Piemonte according to their nationality. Ukrainian, Moldavian and Polish women are much more numerous than their male counterparts and this is also generally the case for immigrants from South America. There is a clear prevalence of male immigrants from Senegal, Egypt, Tunisia and Morocco, but not among the Nigerian immigrants, 2/3 of whom are women. Cultural models and migration plans intersect with specific jobs and upset the gender and age balances making it more difficult for some ethnicities to achieve a population-like settlement.

4 The socio-economic environment and population in the Piemonte region and its provinces

The two-way actions between the socio-economic environment and the population involved are not easy to disentangle in a short-term analysis. Most of the demographic components move in long-term perspectives, much longer than the socio-economic variables do. They, however, contribute to making up the socio-economic environment by producing critical points to tackle as well as potentialities to foster. On the other side, the socio-economic pattern and its change over time condition demographic behaviour and may stimulate some important changes in population dynamics. Here, after a description of the main economic characteristics at provincial level and an analysis of the labour market and human and social capital in the region, only some hints are given as to the main connections between the socio-economic environment and population, with special regard to the demographic behaviour (family formation and reproductive models), population settlement and mobility, effects of population ageing, and the socio-economic impact of immigrants. The current and predictable effects of the 'Global Recession' are discussed in the final paragraph.

4.1 Main economic characteristics at NUTS3 level

As we described above, in the past Piemonte was a forerunner among the regions for what regards manufacturing, but for some decades now it has no longer been considered as one of the top regions in the Italian economic panorama. There are some indisputable points of excellence in the different sectors (e.g., rice-growing in the province of Vercelli, fruit plants in the province of Cuneo, wine-growing and vegetable growing in various hill and plain areas; fine and automatic mechanics in the Torino, Biella and Novara areas; winter tourism in some famous mountain resorts; and the Torino Politecnico) but the region has not managed to overcome the crisis in the automotive industry that began in the 1970s and surmount its basic incapacity to recycle an industry that had become too heavily based on one industry.

Only in more recent years has Piemonte's economy started up again by leaving partially behind the Fordist model that had characterized its previous development²⁴. It has moved towards the service sector, supported and directed by significant state investment (e.g. the fast rail link between Torino and Milano) and the 2006 Winter Olympics, which revived the region's economy and has at least partly redesigned the overall picture.

The trends in the main economic variables demonstrate this recovery, but also the gap Piemonte suffers in respect to the NUTS1 North-Western Italy in both the per capital GDP and labour unit GDP (labour productivity). The large contribution of agriculture to GDP (as much as 4.1% in the province of Cuneo) may hardly

²⁴ The FIAT dominance in the economic panorama of Torino and the Piemontese core industry as well as the Fordist way of production have certainly shaped the relationships between the factory and the society, either formed by the FIAT employees or as a whole. A typical exemplum of the latter can be found in the management of the immigrant's settlement during the 1960's economic boom: it was left entirely to individual initiative and/or to the municipalities' interventions, especially in the Torino outskirts; no specific settlement plan was undertaken or favoured by FIAT [Guercio *et al* 2004].

explain these gaps. Similar gaps are not found, however, for per capita domestic final consumption or for labour income per payroll employee. The standard of living of the population in Piemonte seems similar to the NUTS1 average, partly thanks to the standardization of work contracts and partly, perhaps, to the increased consumption in the region.

Piemonte's per capita GDP falls between the average figure for Italy as a whole and that for the regions in the North-West, and the same is true for productivity per labour unit (LU). There are some structural reasons for Piemonte's backward position (€28.9 thousand per capita and €63.7 thousand per LU in 2008) compared with neighbouring Lombardia (€30.3 thousand per capita and €63.3 thousand per LU). In 2007, none of the provinces in Piemonte exceeded the per capita income, measured in added value terms (AV; Table 14), or the average productivity for North-Western Italy. To find per capita AV at the same level as the province of Verbania-Cusio-Ossola, the lowest in all of Piemonte, we have to look at provinces south of Roma.

Table 14 Added Value, Labour Units and Employed Population in the Piemonte region and its provinces: 2007

<i>Reference areas, Region, Provinces</i>	Added Value (€ x10 ³)			Labour Units		Employed pop.	
	Amount (x10 ⁶)	Per capita	Per LU	Total (x10 ³)	Employ- ees (%)	Total (x10 ³)	Employ- ees (%)
ITALY	1,381,586	23.3	53.2	25,025	71.5	25,184	63.4
NW ITALY	444,331	28.3	60.5	7,350	71.6	7,442	64.4
Piemonte	111,736	25.5	55.4	2,016	66.5	2,035	63.6
Torino	58,219	25.7	56.4	1,033	70.9	1,063	68.5
Vercelli	4,664	26.3	54.7	85	65.7	85	59.3
Novara	9,216	25.6	57.1	161	68.8	163	64.4
Cuneo	15,786	27.4	51.6	306	57.2	297	49.3
Asti	4,934	22.8	54.5	91	61.2	89	54.1
Alessandria	10,749	24.8	55.5	194	66.1	194	58.5
Biella	4,726	25.2	54.7	86	69.3	88	70.5
Verbania-Cusio-Ossola	3,443	21.3	57.3	60	71.2	58	70.4

Source: Elaborations of data from the ISTAT database on the Regional Accounting System.

The structure of the labour units and the employed population in Piemonte also indicate some degree of backwardness compared with the other regions of North-western Italy. In almost all the provinces of Piemonte the share of payroll employment is lower than the NUTS1 average. In particular, the share is low in the province of Cuneo, where there is a high number of farmers, while the more industrialized provinces (Biella, Novara, and Torino) and the provinces where the service sector is more important (Torino and Verbania-Cusio-Ossola) have a share of employees closer to the NUTS1 average.

In effect, industry is heterogeneous in Piemonte's provinces as clearly shown by the data presented in Table 15. The predominance of the primary sector in the mountain province of Cuneo (and also of Asti, Vercelli and Alessandria) is in contrast to that of the manufacturing industry in Biella, Novara and Vercelli, while the service sector (which is prevalent everywhere) is mainly represented in the provinces of Torino (financial services) and Verbania-Cusio-Ossola (trade and tourism).

Table 15 Labour Units by economic sector in the Piemonte region and its provinces: 2007 (% of total LU)

Reference areas, Region, Provinces	Agricul- ture etc.	Manufacturing		Service sector			
		Total	Real M.	Total	Trade	Finance	Others
ITALY	5.3	28.2	20.3	66.5	26.7	14.1	25.7
NW ITALY	3.3	32.1	24.9	64.5	26.2	16.1	22.2
Piemonte	4.7	30.3	23.6	65.0	26.4	15.7	22.9
Torino	2.0	28.5	22.5	69.5	26.3	18.6	24.7
Vercelli	8.0	31.9	24.9	60.1	24.2	12.7	23.3
Novara	3.0	35.3	27.7	61.7	25.7	14.1	21.9
Cuneo	12.7	31.2	23.4	56.1	25.3	12.3	18.5
Asti	9.3	30.1	22.2	60.7	26.9	11.6	22.2
Alessandria	6.1	30.1	22.9	63.7	28.8	12.6	22.3
Biella	2.5	38.7	32.3	58.7	24.9	14.8	19.0
Verbania-Cusio-Ossola	2.2	29.6	21.8	68.2	31.8	11.3	25.1

Source: Elaborations of data from the ISTAT database on the Regional Accounting System.

It is worth asking whether this economic and productive heterogeneity has harmed or benefited Piemonte's performance. In reality, the choice of agriculture does not seem to have any adverse effects on productivity levels in the province or even on per capita income. Indeed, the most agricultural province, Cuneo, has the highest per capita AV of all. This is also seen in the share of labour units in manufacturing or, in general, in the service sector. There is, rather, a weak negative link between the LU share in trade and per capita AV. Basically, it is precisely this heterogeneity that seems to have allowed Piemonte to maintain its reasonable economic levels and standard of living even during the prolonged crisis suffered by its mainstay, the car industry and, in more general, by manufacturing²⁵.

4.2 Workforce and working-age population

The changes in the fifteen years from 1993 to 2008 affected, in the same way, the employed population in Piemonte, North-Western Italy and the whole of Italy: agriculture's share halved and there was an increase of more than 10 percentage points in the share of the population working in the service sector (Table 16). The share in manufacturing declined everywhere, but more in the Northwest and Piemonte, where it was and is still larger than in the rest of the NUTS1. Among the provinces of Piemonte, the gap widened between the share of the employed population in manufacturing and that in the service sector, with the province of Torino counting almost 2/3 of workers employed in the service sector, followed by Verbano-Cusio-Ossola, with its lakeside tourism and accommodation facilities for elderly, well-off clients.

The agricultural sector continues to be important for employment in the province of Cuneo (10.1%) and Asti (8.6%), but while in Cuneo only 1 worker in 7 is a payroll employee because of the prevalence of the direct cultivation of small lots, in Asti more than 1 in 4 are employed by farming companies (especially in the wine-growing sector), which cover an extensive area of land. In the small province of Biella there is still a large share of the employed population working in manufacturing (41.4%), with 4/5 of workers as payroll employees, in a very similar way to Novara, the other more industrialized province (36.6%).

²⁵ For official documents on the recent trends, current situation and prospect of the regional economy see Unione Industriale di Torino [2004] and Regione Piemonte [2005].

Table 16 Structure of the employed population by economic sector in the Piemonte region and its provinces: average 1993, 2001, and 2008 (% of total employed population)

Reference areas, Region, Provinces	Agriculture			Manufacturing			Service sector		
	1993	2001	2008	1993	2001	2008	1993	2001	2008
ITALY	8.2	5.2	3.8	32.9	31.8	29.7	58.9	63.0	66.5
NW ITALY	4.6	2.6	2.4	40.7	37.7	33.6	54.7	59.7	64.0
Piemonte	7.5	3.7	3.6	40.0	38.2	33.6	52.5	58.1	62.8
Torino	3.2	1.8	1.6	42.3	37.5	32.3	54.5	60.7	66.1
Vercelli ^(a)	8.7	5.1	5.1	40.2	42.5	34.9	51.1	52.4	60.0
Novara ^(b)	4.4	3.3	2.7	43.3	38.7	36.6	52.3	58.0	60.7
Cuneo	20.2	8.8	10.1	33.9	36.6	33.6	45.9	54.6	56.3
Asti	14.3	9.6	8.6	33.3	36.6	32.0	52.4	53.8	59.4
Alessandria	11.6	4.7	3.6	32.3	35.6	35.2	56.1	59.7	61.2
Biella ^(a)	NA	1.4	2.5	NA	51.4	41.4	NA	47.2	56.1
Verbania-Cusio-Ossola ^(b)	NA	2.0	2.1	NA	39.2	32.4	NA	58.8	65.5

Notes: ^(a) In the 1993 survey the province of Biella was still included in the province of Vercelli; ^(b) In the 1993 survey the province of Verbania-Cusio-Ossola was still included in the province of Novara.

Legenda: NA = Not Available.

Source: Elaborations of the ISTAT dataset from the Labour Force Survey.

In recent years, between 2001 and 2008 (Table 17), the changes confirmed the contraction in manufacturing in Piemonte (in seven years, there were 48,000 fewer workers employed, a drop of -7.1%, double the reduction for North-Western Italy as a whole and moving in the opposite direction to the rest of Italy, where there was a slight increase), especially if the construction industry is excluded. Agriculture, on the other hand, took on more workers (+2,000 or +3.3%), while those employed in the service sector increased by +146,000 (or +14%, just under the figure for North-Western Italy and the national average). The structure of employment by workers' position between 2001 and 2008 moved towards payroll employment, mainly because some forms of temporary work had been regulated and considered as payroll employment even if it was atypical.

Table 17 Changes in the employed population by economic sector or worker position in the Piemonte region and its provinces: 2001-2008 (% change or net change in thousand)

Reference areas, Region, Provinces	Total	Economic sector				Worker position	
		Agriculture	Manufacturing	Real manuf.	Services	Employees	Independent
ITALY (%)	+8.8	-20.5	+1.7	+1.4	+14.8	+12.4	-0.6
NW ITALY (%)	+8.3	+0.7	-3.5	-6.0	+16.1	+10.5	+2.2
Piemonte (%)	+5.6	+3.3	-7.1	-9.7	+14.0	+7.2	+1.2
Piemonte (000)	+100	+2	-48	-66	+146	+94	+6
Torino (000)	+56	-1	-30	-43	+87	+45	+12
Vercelli (000)	-3	...	-7	-7	+4	-1	-2
Novara (000)	+14	...	+2	-1	+13	+16	-1
Cuneo (000)	+14	+5	-3	+2	+12	+7	+7
Asti (000)	+6	...	-2	-2	+9	+12	-6
Alessandria (000)	+9	-2	+2	-2	+8	+12	-3
Biella (000)	...	+1	-8	-9	+7	-3	+3
Verbania-Cusio-Ossola (000)	+2	...	-4	-3	+6	+5	-3

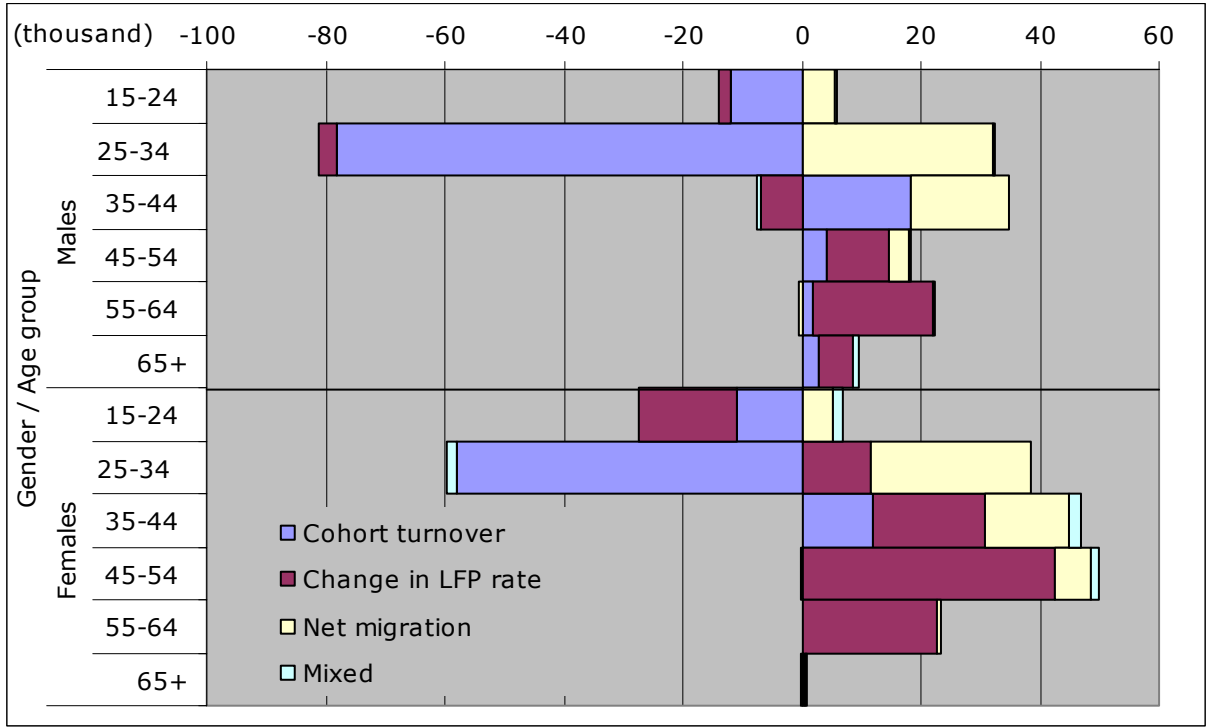
Legenda: ... = Less than half of the minimum displayed.

Source: Elaborations of the ISTAT dataset from the Labour Force Survey.

Apart from those who crossed over between sectors and position, the overall workforce employed in Piemonte increased by +100,000 between 2001 and 2008. In particular, it grew in the provinces of Torino, Novara and Cuneo, whereas it fell a little in that of Vercelli.

It would be interesting to discover the cause of these increases, either from an endogenous increase in the working-age population, or from an increase in employment rates or because of workers migrating to the area. It is only possible to make such a calculation, in approximate terms, for the region as a whole²⁶. Figure 4 shows the gender and age-group components of the changes in the employed population.

Figure 4 Components of changes in the employed population by gender and age in the Piemonte region: 2001-2008



Source: Elaborations based on ISTAT data.

About 10% of the overall +100,000 workers is due to the increase in employed males over the age of 65 years because of a larger demographic turnover (+3,000), and also to an increase in the relevant employment rate (+6,000). Between the ages of 15 and 64 years, the cohort turnover at constant employment rates would have led to a decrease of -122,000 workers between 2001 and 2008, while the single change in the sex-and-age-specific employment rates would have caused an increase of about +97,000 workers (+18,000 men and +79,000 women). Therefore, the two 'internal' items taken together would have led to a reduction of -25,000 workers. In short, the entire increase

²⁶ We used the structures by single age supplied by ISTAT POSAS, but they were re-proportioned to the values reported in the Labour Force Surveys. The expected 2008 population was calculated by the application of the 2005 regional life table. The various components were calculated via a usual distribution model.

recorded can be ascribed to net migration which, at constant 2001 employment rates, would have increased the numbers of workers aged 15 to 64 years by about +110,000 (+57,000 men and +53,000 women) which, at 2008 rates, rises to an increase of +112,000.

The large deficit in the turnover of young workers, especially in the 25-34 year age group (-78,000 men and -58,000 women), emerges clearly from Figure 4. This deficit is only partly offset by net migration, which however gave a positive contribution to the later age groups as well. By contrast, in the older age groups, the most important positive contribution came from the increase in employment rates, particularly for women. The increases can be explained by the fact that a large part of the workforce changed from manufacturing to services, became more feminised, and official retirement criteria were more strictly implied.

In short, the changes in employment that occurred in Piemonte between 2001 and 2008 were characterized by:

- i) A sharp reduction in younger workers (-99,000 overall, aged 15-34 years), mainly due to insufficient cohort turnover (-159,000), which has not been offset by net migration (+70,000), but was aggravated by a decrease in the employment rates (-10,000);
- ii) An increase in older workers (+198,000 overall, aged 35 years and over), caused by the cohort turnover (+40,000), positive net migration (+40,000) and, especially, by an increase in the employment rates (+113,000), particularly for women (+84,000).

4.3 Role of foreign immigrants in the workforce

The importance of the recent inflow of migrants into Piemonte's labour market forces one to examine precisely the role of migrations in the regional workforce. The size of the resident foreign population in Piemonte was more than 350,000 on 1 January 2009, i.e. 8% of the total resident population, and the number of registrations of immigrants from abroad between 2002 and 2009 was 290,000, i.e. 36,200 as an annual average, or +8.6% a year. These migrants have made an essential contribution to employment growth²⁷.

In the absence of the most recent data, we can look at the 2006 IRES Report on immigration in Piemonte [IRES-Piemonte 2007]. A summary of this information now follows, bearing in mind that data are based on ISTAT's Labour Force Survey and only refer to non-EU citizens, Romanians and Bulgarians included because data refer to a time period before their inclusion in the EU.

The foreign population has a much higher labour force participation rate than the Italian component: 73.4% against 66.8%, a figure that depends on the higher levels among foreigners as regards both the employment rate (68.8% against 63.7% respectively) and the unemployment rate (6.3% against 4.6%).

²⁷ It is not possible to distinguish between internal and foreign immigration in the above calculations for net migration within the 2002-2009 variations in employed population. Nevertheless it is worth noting that in the 2002-2008 period 92% of Piemonte's net migration was with foreign countries.

The employment picture shows a strong concentration of foreign males in the construction and manufacturing industry²⁸, and of foreign women in services for the family. However, the ISTAT Labour Force Survey does not seem able to identify the number of foreigners working in agriculture, linked to seasonal activity, which is often characterized by the temporary passage of newly arrived workers across the territory. The professional placement of non-EU citizens is very low: they make up 5.6% of all workers but account for 20% of unskilled workers and 12.5% of manual workers, especially in mechanical metalwork, construction and rubber-plastics.

Foreign women make up 36.7% of employed foreigners (as against the higher figure of 42% among Italian workers), with clear segregation into services related to housekeeping and needy-persons care, which absorb half of all the female labour immigrants, (only 5% of the local Italian female workforce). They almost all work in one of two professional areas: unskilled professions (49.2% of foreign working women), and qualified professions in trade and services (20%).

After an analysis of the relations between new job opportunities for immigrants and their consolidated presence, IRES draws some conclusions about the different roles of male and female immigrants in the regional economy. While the labour market is a significant driver for males, and localized in territorial terms, for women, their presence does not seem to be tied to market conditions, i.e. the presence of non-EU families increases where there is work for the men, not where there is work for the women. Single women are more represented in places where there are fewer foreigners and their presence, differently from men, does not follow market conditions, at least not the official ones. They often follow the demand for private and strongly ethnicised work (e.g. private carers in families), and equally frequently, they arrive on their own from countries in Eastern Europe or Central and Southern Asia, without having their families join them later.

4.4 Human and Social Capital

The economic structure that until recently was mostly industrial and agricultural, the workforce that until recently was mainly made up of manual labourers, and the large flows of in-migrations from the poorest areas of Italy fully explain the lower educational level of the population living in Piemonte, not only compared with other NUTS2s regions in North-Western Italy, but even compared with the national average (Table 18). This also applies to the labour force, albeit to a lesser extent. However, the trends in recent years have been parallel to those in the other reference areas, with a particular increase in educational levels among women, who now broadly exceed men in their share of graduates or post-graduates.

A two-peaks distribution in education characterizes the labour force in Piemonte. It was and is still perfectly functional to the labour market stratification, where Fordist manufacturing asked for low-educated manual workers, while the firms' management, R&D and knowledge economy asked for highly educated specialists [Borrione 2010]. The changes occurred in recent decades in the regional economy, its productive system and the natives' schooling, which modified this

²⁸ For a study on the role of immigrants in the Piemontese manufacturing see Luciano *et al* [2007].

pattern toward an increasing educational level of the workforce, also boosted by the mass-entrance of young women in the service sector. The following problems are: i) whether the specialisations achieved by most of the local young people are fitted to the labour market's needs; ii) how much the higher educational level is adequately remunerated in terms of wages and/or work conditions [Davico *et al.* Staricco 2007].

Table 18 ISCED index and share of graduates or post-graduates in the 15 year and over population in the Piemonte region: 2001 and 2008

Reference areas, Region	15 year and over population ^(a)				Labour force			
	Males		Females		Males		Females	
	2001	2008	2001	2008	2001	2008	2001	2008
	ISCED index^(a)							
ITALY	2.31	2.74	2.18	2.61	2.85	3.10	3.13	3.45
NW ITALY	2.36	2.80	2.21	2.66	2.91	3.15	3.10	3.42
Piemonte	2.29	2.73	2.15	2.59	2.84	3.10	3.02	3.35
	Share of graduated or post-graduated people (%)							
ITALY	6.6	10.3	5.8	11.1	10.5	13.5	14.1	21.2
NW ITALY	7.2	11.1	6.1	11.5	11.2	14.5	13.1	20.3
Piemonte	6.6	9.9	5.4	10.5	10.3	13.2	11.3	18.8

Notes: ^(a) Because of lack of data, doctorate and research titles are included in university degrees (ISCED level 5).

Source: Elaborations of the ISTAT dataset from the Labour Force Survey.

The theory of selection in migration and several field surveys show that the educational level of foreign migrants in Italy is anything but low²⁹. Nevertheless, there is no functional pre-selection of job applications and, following entry into Italy, work placements are rarely matched to educational level. This is especially the case for labour migrants from developing countries. This gap is partly due to the difficulties encountered in Italy in having qualifications obtained in a foreign country officially recognized, but it is mainly due to the Italian productive system that usually utilises foreign workers in low-level jobs.

In this regard, Piemonte is no different from the other regions. The 2006 IRES-Piemonte immigration report, analysing the microdata from the ISTAT Labour Force Survey based on respondents' answers, noted that «the gap [between Italians and immigrants in terms of educational qualification] was small, and the difference seems very clear only in the group with a higher educational level – post-school leaving certificate and university degree, where Italians account for almost the double, while at the lower levels there is a similar distribution, with a higher foreign presence among people with better qualifications than the legal minimum.» [IRES-Piemonte 2007: 26]. Further on in the report, a process that could involve a growing number of settled immigrants is suggested: «foreigners, for the most part placed in positions on the lower steps of the professional ladder, accept jobs for which they are over-qualified, but presumably those who decide to settle in Italy, once they have consolidated their situation, will try to exploit their own potential to the full, freeing up low-level jobs which are unappetizing to the local population and thus opening up the road for further flows of migrants.» [*ibid.*]. This is a process that we have already seen in action in many immigration countries, but which seems to have greater difficulty in

²⁹ The ISTAT Labour Force Survey in 2006 found no significant difference in education between Italians and foreigners aged 15-64 years living in Northern Italy: e.g., 11.1% of foreign people declared to have a university degree against 11.8% of the Italians.

starting up in Italy (and therefore in Piemonte) due to a contradictory attitude to foreign labour immigrants, including discrimination on work.

There are also problems connected with the education of the next generations of immigrants, starting with that made up of children born abroad and who have immigrated at school age [Ambrosini *et* Molina 2004]. The ISMU Report [2010], with reference to the Ministry of Education 2007-2008 data, makes reference to 55.4 thousand foreign students enrolled in any kind of school (university excluded) in Piemonte. On average, they accounted for 9.7% of the total. In 2005-2006 they exceeded 10% in the provinces of Alessandria and Asti, as was also the case in the municipality of Torino³⁰: for the first two, the strong presence of foreign students is also a result of settlements of Albanian immigrants who arrived there in the 1990s [IRES-Piemonte 2007: 78-79].

The importance of social networks both in the smooth functioning of a society and the well being of its people is well known [Nahapiet *et* Ghoshal 1998]. The difficulties in measuring the 'social capital', which tries to operationalise those concepts, are also well known [Grootaert *et* van Bastaeler 2001]. In any case, a wide set of indexes may be used either from the people's perspective or the social bodies' one, though certainly missing the complexity of this factor.

The people's perspective is described by a set of variables that deal with the individuals' network, as in family, friend and neighbour ties, and with their behaviour regarding social activity and participation. A recent study on Italy used about fifty variables in an ACP analysis to characterise the social capital in its twenty regions [Sabatini 2005]. Though in a backward position, Piemonte is part of the group of Northern and Central regions that are the forerunners in the development of social capital. However, together with Liguria and Lombardia, Piemonte is negative on the second factor defined as a 'mix of bonding and bridging ties'. When analysed by grouped variables, Piemonte is especially lacking in the family social capital, i.e. the complexity and shape of families, the closeness of their members, the quality of their relationships, etc. It may be useful to stress that the population that resides in Piemonte suffers poor familial relationships both because of its long-lasting low fertility and its important share of immigrants from far distant countries³¹. The other groups of variables – which measure the friendship and neighbour relations, voluntarism, political activity, and civic involvement – witness Piemonte almost at the barycentre among the Italian regions, but on the 'positive' side.

Immigrants' integration is another aspect of the social capital in the region³². Piemonte is among the three top regions if immigrants' social inclusion and labour market participation are measured as compared to the nationals' averages (-40%); but it goes down to 16th position if the reference is to the nationals living in the region (-60%) [IDOS 2008].

While the administrative and political bodies are strongly founded in the society, people living in Piemonte have hardly developed bottom-up structures, especially

³⁰ For a specific survey on the subject in the Torino municipality see Luciano *et al* [2009].

³¹ At the 2001 Census, 27% of the overall population residing in Piemonte was born outside the region, but it was 38% in the 45 yrs and over population.

³² For an in-depth analysis of some aspects of the immigrants' integration in Piemonte see Zincone [2009].

in the area of farming activities and agricultural products. Social wineries, for instance, are less diffused than in other Italian regions³³, as the Piemontese producers prefer to sell their grapes to the big wineries if they are not able to produce their own cru. Also for the mechanisation of agriculture, single farmers have often made it singularly by themselves. The same happens in handicraft and small manufacture, where branch or area consortia are not common.

4.5 The socio-economic environment and demographic behaviour

We anticipated in Section 2 how the social environment and industrial revolution influenced family formation and reproductive models in Piemonte since the beginning of the past century, thus making the region a forerunner in fertility decline in Italy. After some limited recovery by the cohorts of mothers born in the 1940s and mainly due to the contributions from the women who immigrated to Piemonte from other regions during the 1960s' economic boom, both the period and cohort fertility have been in constant decline till recent times. This has brought the region to record lowest-low fertility levels: 1.04 children per woman in 1995 the period TFR, and 1.21 the completed fertility in the female cohort born in 1969³⁴.

We should wonder whether the socio-economic environment and, in particular, the Fordist productive system influenced people's behaviour in family formation and reproduction. Of course, no statistical evidence can prove this. However, two signs lead us to suppose that this is the case, at least in part:

- i) Women from Southern Italy who had migrated to the Piemontese industrial areas during the 1960s' economic boom reduced their reproductive attitudes and behaviours in a short time [Gesano 1974; Michielin 2003];
- ii) The province of Cuneo – the less involved in the Fordist development – shows TFR levels always higher than the rest of the region.

Also the recent recovery of the natives' fertility might be connected to the decreasing involvement of workers in manufacturing and to the abandoning of the Fordist work organisation even in the largest industrial plants [Dondona *et* Maurizio 2009]. The Fordist industrial setting, centred on productivity and accumulation, «whilst making labour conditions relatively similar» [Esser *et* Hirsch 1994: 75], leaved little space and attention to the workers' family³⁵, although «the reproduction of the work forces [was] the integral part of the reproduction of capital on the basis of a generalized consumer model» [*ibid*].

³³ Only about 1/3 of the production is transformed by social wineries in Piemonte, notwithstanding that they are among the oldest in Italy and dispersed all over the regional territory [Aimone *et al* 2002: 29-30].

³⁴ Because of right-truncated data, we are not yet able to estimate the completed fertility in the following cohorts, which could be increasing both because of foreign immigrants' contribution and the recovery of the native cohorts in their fertility levels.

³⁵ However, there is a sharp divide between Olivetti, which organised a crèche in its plant since 1936 [Arrigo 2008: 14], and FIAT, whose present managing director Sergio Marchionne, during the opening of a crèche in Mirafiori in 2007, remarked that he was hit by the life conditions of the pay-roll employees when he entered FIAT [La Stampa, 21/9/2007]. Other Piemontese companies, especially in the textile and cloth branch, had adopted a 'paternalistic' way in managing industrial relations since the end of the 19th century [Guiotto 1979: 118]. Something similar remains, but in a wider social and environmental perspective, such as in the sweets producer Ferrero, that originated in the province of Cuneo but nowadays is extended worldwide [Panorama, 12/6/2009].

In a standardised and stratified society widely dominated by consumerism and timed by the work timetable even having one child (or additional children) could be an obstacle when both in a couple work [Del Boca *et Saraceno* 2007]. The post-Fordist transformation and, especially, the growth of employment in the service sector may have reduced those constraints, though a work-centred way of life probably persists and might even be stressed in self-managed professions.

Given the structural deficit in public assistance³⁶, young double-work couples have three main solutions to look after their children, if they have any:

- i) To pay for private crèches and other structures for the after-school hours;
- ii) To hire some help on the market – in 2003, 3.8% of the households used to hire a baby-sitter in Piemonte, alike the Italian average, but less than in Lazio (8%) and some other Northern and Central regions³⁷;
- iii) To ask their parents, relatives or others for free help – in 2003, 5% of the overall households received this kind of assistance for their children in Piemonte, a little more than the Italian average but less than in Veneto (7.6%) and in many other Northern and Central Italian regions. In particular, 34% of the Piemontese grandparents look after their grandchildren, aged less than 14 years, when the parents are at work. This is a large percentage also in the North-Italian panorama (31%, on average), and much more than the Italian average (23%).

In this third solution, present couples may be favoured in Piemonte because of little 'concurrency' from the few siblings their components normally have³⁸, and the increased proximity of their parents in respect to the past young cohorts that had shortly immigrated from the countryside or from other, far away regions³⁹. On the other side, the 'market solutions' imply the use of important shares of the family income, with possible need for additional work. It should be considered that an increasing baby-sitter solution (or similar ones through housemaids⁴⁰) might foster specific female immigration, especially from Eastern Europe.

In a future perspective, should the present setting persist, young people will probably maintain a scarce propensity to start a family and to have babies, because of being «too much 'in the work' or, those in the services to people, insecure and low paid» [Migliore *et al* 2002: 16]. Also immigration could hardly contribute to a demographic revival under the hypothesis of a 'selected development', because it is characterised by low levels or, those employed, employed in low-level jobs. Thus settlement and integration of foreign immigrants in Piemonte could be difficult and their offspring will probably be

³⁶ For instance, the Region Piemonte lists a total of about 200 public crèches for a little more than 10,000 children aged 0-3 years [http://www.regione.piemonte.it/polsoc/servizi/norm_sin.htm]. This is a supply that covers less than 1/10 of the potential demand coming from the regional population in the same age group.

³⁷ These data and the following ones are drawn from ISTAT, *Parentela e reti di solidarietà. Indagine multiscope sulle famiglie - Anno 2003*, http://www.istat.it/dati/catalogo/20061010_00/

³⁸ The average number of surviving siblings for the overall population in Piemonte was 1.3 in 2003, and 22% had none. The corresponding average values for Italy were 1.6 and 17%, but in other regions the average number of siblings was lower (e.g., 1.0 in Liguria).

³⁹ In 2003, 61% of the population up to 69 years of age who resided in Piemonte lived with their mother or at less than 16 km far from her. It was a lower percentage in respect to the Italian average (66%) and among the lowest regional values.

⁴⁰ In Piemonte, 5.6% of the households used to hire a housekeeper in 2003, a little less than the Italian average (6.2%) and almost the half of Lazio (10.6%).

limited in number: «Demographic change is supported mainly by net migration and population ageing goes steadily on» [*ibid*]. In case of a 'reactive development', on the contrary, a more 'family friendly' society and productive system can be envisaged through better services and more flexibility in work engagement. Incomes should also increase in this hypothesis because of important developments in the innovative branches. Couples' fertility should increase and be anticipated both because of higher incomes for young people and better services and attention for the families. The settlement and integration of foreign immigrants would be easier under this hypothesis, but their inflow will probably be smaller and their fertility, which is initially higher than that of the natives, will probably fast reduce to similar values because of better standards of living [*ibid*: 18].

4.6 The socio-economic environment and population ageing

An increasing burden of elderly people on a shrinking working-age population upsets all the mechanisms by which the economy and welfare society work. And this is especially true if some rules and behaviour do not change in the modal age at retirement and in the labour participation of 'marginal' labour forces – women and elderly people, in particular, but also young people with no permanent or regular work who, in a Pay-As-You-Go pension system and a tax-founded welfare state, do not pay enough contributions for elderly people's pensions and assistance.

In addition, a fast increasing number and share of old people (80 years and over) can be an unbearable burden for a society if these people are poor and/or disabled. The challenge is to prepare them in advance to attain older ages in the best state of health possible and with a satisfactory standard of living. For that, a change in perspective is needed; especially where a 'philosophy of life' centred on youth prevails.

Some data on the recent situation of elderly people in the municipality of Torino and in Piemonte can be compared with North-Western Italy and Italy as a whole in Table 19 [Gesano 2007]. The situation is almost in line with the comparing values, whilst a few more elderly couples seem to resist in Torino. However, the percentage of elderly people living alone is larger (about 1/3 65-years-and-over population), thus pointing out one of the possible problems of public assistance or, at least, monitoring.

Table 19 Indexes of the situation of elderly people in the municipality of Torino, Piemonte, North-Western Italy and Italy (%)

Percent share of:	Municipality of Torino	Region Piemonte	NW Italy	Italy
Women in the 65+ yrs population ^(a)	59.5	58.6	59.4	58.5
Not married people in the 65+ yrs population ^(a)	42.3	43.4	43.9	42.3
Widows in the 65+ yrs women ^(a)	45.5	48.7	48.9	47.6
Elderly people living alone in the 65+ yrs pop. ^(b)	29.2	28.9	27.8	24.6
Women out of elderly people living alone ^(b)	80.6	78.1	79.4	79.2

Source: Elaborations of ISTAT databases: ^(a) 1/1/2005 estimates; ^(b) 2001 Population Census.

Their family network may be frail, actually, because of the few children produced by the cohorts who are now becoming old in Piemonte: about 18% of the women born in 1925-1929, who recently entered the old age (80 years and over), were

childless, and 34% had had only one child in their reproductive life⁴¹. The 'horizontal' family network of elderly people may also be poor in Piemonte, because of few siblings or the distance from the area of provenance⁴².

In this respect, future perspectives are worrying in the region, especially regarding the extension of both the 'vertical' and 'horizontal' family networks. However, there shall be a period of relative calm in the next few years, since more than 85% of the woman in the cohorts born between 1930 and 1957 had had at least one child in Piemonte (1/3 just one) because of the baby-boom revival and the immigrants from Southern Italy in the 1950s and 1960s. On the contrary, the following cohorts, who shall enter old age after 2035, have experienced a fast decreasing fertility and high proportions of childless women.

Traditional solutions for the various needs of elderly people are left mainly to the private sphere, with an increasing demand for immigrant housekeepers and nurses. This entails important expenses by the elderly or their families. Fragmentation also produces waste and low specialisation in elderly assistance. However, this kind of solution seems to meet the habits of elderly people, who prefer relations with single persons for their assistance. Those habits also retain elderly people in the dwelling they probably bought at the zenith of their family expansion, and which now may be too large, demanding and expensive for them.

Collective solutions from the welfare state are provided differently in Piemonte following the policy and budget of the territorial districts for social assistance (there are 59 districts in the region), within an integrated system ruled by the regional law 1/2004. At the end of 2006, 13% of the users of social assistance were self-sufficient elderly people, and 18% were non-self-sufficient elderly people: the corresponding shares in the 2006 budget were 16% and 21%. 40% of the budget for elderly people was used in home care and annexed, 11% for residential care. 4.7% of the elderly people were socially assisted in the region, with higher percentages in the provinces of Vercelli, Cuneo and Novara and lower percentages in the provinces of Verbania-Cusio-Ossola, Torino and Biella. This percentage ranged from 19% to 2% at district level⁴³. The most part of those activities is operated by social cooperatives [Marocchi *et al* 2009].

Nevertheless, the problems caused by population ageing might turn into a spur for the local economy if they are managed in innovative ways and with appropriate technologies for good health, computer aids for disabled people, house-building and equipping for elderly people, home innovation and automation, etc.⁴⁴. Piemonte has the technical know-how and the entrepreneurial class to turn the ageing problem into an economic benefit. However, this will

⁴¹ The reference average values were respectively: 15% and 20% for Italy as a whole; 15% and 28% for Northern Italy; 19% and 36% in Liguria, the region with the historically lowest fertility.

⁴² With reference to the whole population in Piemonte, we can evaluate that in 2003 only 58% had a sibling nearer than 16 Km and 39% maintained weekly relations with them. The corresponding averages for Italy were 68% and 46%, respectively.

⁴³ These data are drawn from Regione Piemonte, *Numeri dell'assistenza – 2008*, available at: <http://www.regione.piemonte.it/polsoc/dwd/numeri2008.pdf>. Other, more detailed data on the social assistance to disabled elderly people are reported in [CoRiPe-Piemonte 2010].

⁴⁴ Since 2005, there exists the SEN@ER - Silver Economy Network of European Regions (<http://www.silvereconomy-europe.org/>), which «regards the ageing of our society not as a threat but rather as a challenge and an opportunity for regional economic growth and for improving Europe's competitiveness». At this moment, no Italian region participates in it.

happen only if, at national and local level, private stakeholders and public welfare want to invest adequate material and immaterial resources and enough money [Abburrà *et* Donati 2004].

Population ageing also entails the shrinking and ageing of the labour-age population and, consequently, of the labour force. If shrinking is only relative to the rest of the population, it makes the ratio between the productive and unproductive population worse. If the labour-age population also shrinks in numbers, it may produce shortcomings in labour supply unless labour participation of 'marginal' forces does succeed in compensating them. The ageing of the labour-age population may be temporarily positive for the economy because of the higher employment rates in central ages. But, eventually, the bulk of potential workers moves into older ages, when early retirements begin to reduce labour supply⁴⁵. Moreover, from a productivity perspective, old workers cost more and are less flexible to changes and innovation. Table 20 summarizes the impact of those problems through some indexes in the recent past and near future.

Table 20 Indexes of the ageing of labour-age population in the municipality and province of Torino, Piemonte, North-Western Italy and Italy

	Municipality of Torino	Province of Torino	Region Piemonte	NW Italy	Italy
Average annual rate of change of the 15-64 yrs population (%):					
2002-2009	+0.25	+0.23	+0.28	+0.41	+0.48
2009-2020 ^(a)	NA	-0.20	-0.04	+0.04	-0.09
Change in % of the 15-64 yrs pop.:					
2002-2009	-2.1	-2.7	-2.1	-2.3	-1.2
2009-2020 ^(a)	NA	-2.9	-2.1	-2.3	-2.3
Ratio 15-39yrs / 40-64yrs					
2002	0.92	0.93	0.94	0.98	1.07
2009	0.85	0.83	0.82	0.84	0.91
2020 ^(a)	NA	0.68	0.69	0.69	0.72
% 55-64yrs out of 15-64 yrs pop.:					
2002	21.2	20.2	19.9	19.4	17.8
2009	19.5	20.0	20.0	19.3	18.4
2020 ^(a)	NA	22.1	22.1	21.8	21.7

Note: ^(a) ISTAT 2007-2051 population projection, Central scenario.

Legenda: NA = Not Available.

Source: Elaborations of ISTAT databases available at <http://demo.istat.it/>.

Both the shrinking and ageing of the labour-age population are more advanced in Piemonte than the rest of North-Western Italy and Italy as a whole. Especially in the near future, the ratio of younger/older workers is expected to worsen heavily, while also the percentage of the labour-age population in the exit age group shall increase dramatically.

Are the Piemontese society and economic system sufficiently aware of those problems? How are they managing them? The scientific debate developed since

⁴⁵ In Piemonte, the 55-64-year-old population shows one of the lowest values of labour participation rate among the Italian regions: 39.3% for the men and 23.9% for the women in the 2008 average, against national averages of 47.0% and 24.7% and top values of 54.8% (Lazio) and 31% (Bolzano/Bozen), respectively. The early retirements of manual workers in manufacturing (retirements for length of service and/or facilitated retirements) can explain the important quota of non-working population among the seniors in Piemonte.

some years ago has considered various pertaining issues: general problems in labour-force ageing [Pugliese *et al* 2005; Morlicchio *et al* Pirone 2006; Accorinti *et al* Gagliardi 2007]; seniors' choices on work/retirement [Contini *et al* Fornero 2002]; employers' attitudes to labour-force ageing [Molina 2000]; innovation and permanent learning [Guile *et al* Migliore 2006; Migliore 2006]. The entrepreneurial class seems to be less aware of the problem and manages it mainly according to employment needs. Some initiatives have come either from institutional bodies, trade unions or religious institutions, especially in the direction of recycling elderly workers and boosting their use in the 'third sector'.

4.7 The socio-economic environment and foreign immigration

A similarly ambivalent attitude prevails towards foreign immigration. Some negative aspects of the inflows, as well as in their settlements, may justify a diffused low esteem towards the immigrants' role and the social alarm that often follows their presence⁴⁶. On the other side, their utilisation by the productive and service systems often borders on exploitation, either in labour conditions or wages [Zanfrini 2001]. The necessity of the immigrant workforce in the functioning of the socio-economic machinery is barely accepted in the mass consciousness and institutions [Allasino *et al* 1992], as well as the migrants' contribution to the economy [Livi Bacci 2005; Borracchini 2008]. The awareness of migrants' contribution to the regional demographic trends is almost nil, apart from that considered by some specialised scholars [Abburrà *et al* Migliore 2006].

Immigration suffered and still suffers from a lack of regulation in both flows and settlements. Flows are driven in their dimension, provenance and composition by the individual initiative of either the immigrants themselves (often through their 'migratory chains') or the future employers and legal, semi-legal or illegal agencies that operate in the field. An important quota of illegal immigration to be regularised again and again, and a considerable mismatch between supply and demand, especially regarding job levels and work contracts, follow.

Obviously, the settlement of immigrants throughout the region is driven by where their workplace is located or where the chances of earning a living are higher, such as large cities like Torino, in particular. However, the availability of low-cost lodgings and transportation also drive the local settlement of immigrants, often creating 'kasbah' and squatter areas in towns and makeshifts in dismissed industrial areas, villages and countryside. Immigrants have inhabited entire quarters in Torino – e.g., Quadrilatero Romano, San Salvario, Porta Palazzo, Barriera Milano, etc. [Sacchi *et al* Viazzo 2003]. The original inhabitants have abandoned some of them progressively; others quarters are now calling young Italian professionals back – e.g., Quadrilatero Romano and San Salvario. House ownership is increasing among the immigrants, who mainly occupy the cheap market of small flats in old buildings [Ponzo 2009]. Also ethnic economies have been developing in recent years in connection with the settling of specific national groups [FIERI 2008].

These processes involving foreign immigrants are not far different from those suffered by the Italian immigrants in the 1950s and 1960s. They too initially

⁴⁶ Some political parties won large consensus in Piemonte, as well as in other northern regions, on the issues of citizens' security said to be threatened by the presence of immigrants

settled in the poorest flats of the dilapidated houses in the city centre, then in the outskirts. They too often lived in separate social groups [Fofi 1964]. But, in few years, the industrial work and the big factory made them part of the Torinese society. This is no longer the case for the present foreign immigrants, who are scattered over different jobs, mostly conditioned by individual and temporary contracts or even carried out in ethnic enterprises. Any form of socio-economic integration becomes harder under such circumstances.

4.8 The socio-economic environment, population settlement and population mobility

The complex geomorphology of the region Piemonte and its millennial history of transit and stay of human populations drew a very composite urban structure in its territory. The 1997 Regional Planning pointed out 10 historical towns of high importance at regional level, 44 historical towns of considerable importance at regional level, and 266 historical towns of medium importance at regional level. A large number of other towns and villages were defined as minor historical towns having a sub-regional importance [Regione Piemonte 1997].

The territorial arc centred on Torino, starting from Cuneo in the Southwest and reaching Novara in the Northeast, does gather a large part of those central towns. But it neither has a unique coherent structure, nor absorbs them all: the Alessandria system is separate in the Southeast and some locally important towns are in the valleys of the Alps or on Lake Maggiore's shores.

Torino's predominance is unquestionable, however. At the beginning of 2010, residents in the municipality of Torino were by ninefold the second largest town in the region – Novara. The resident population in Torino peaked at 1,168 thousand in 1971 (26% of the regional population) and then decreased to 862 thousand by 1/1/2003 (20%), while it recently increased up to 910 thousand (20%), mainly thanks to foreign immigration.

The Fordist 'one company town', that swelled in the 2nd post-war period and the 1960s economic boom, mirrored the fortunes of its main factory – FIAT, which shaped the mission of the city and its way of living according to the timing and productive needs of its own plants [Bagnasco 1986]. The recurring crises of FIAT, which began in the early 1970s, and the delocalisation of part of its plants into Southern Italy and abroad, reduced the FIAT payroll employees in the Torino area. This also occurred because of the large externalisation and spin-off that were implemented there in the productive processes. For years after Torino has not been able to separate its own destiny from those of FIAT's plants that, by that time, were abandoning a too Taylorist work organisation and were automating over and over. The post-Fordist economy, more based on the markets than on production, crept into Torinese society in the 1980s, with the splitting of the productive system, the rise of a micro-entrepreneurial class, the spreading of double-job workers [*ibid*], and the employment of women in manufacturing and services⁴⁷ that increased the number of double-income households and their purchasing power.

⁴⁷ The female labour-participation rate gained about 10 percent points in Piemonte in the 1980s, notwithstanding the reduction of activity in agriculture where women were traditionally employed.

By the end of the past century, the Torinese intellectuals and policy-makers realised that a profound change was necessary in the way of managing the local socio-economic environment. The project 'International Torino' was launched, producing strategic planning for the city [Torino Internazionale 2000]. In order to integrate the Torino Metropolitan Area into an international network, the plan pointed out some strategic lines to be addressed: i) to foster vocational training and research; ii) to promote entrepreneurship and employment; iii) to make Torino a city of culture, trading, and sport; iv) to improve the quality of urban life; v) to arrange the city governance [*ibid*].

But only after the FIAT crisis of 2002 did the changes in Torino and its reference area become considerable. As the strategic plan predicted, the 2006 Winter Olympic Games was an important spur to improving the city's infrastructures and facade, as well as stimulating national and international initiatives in culture (from a broad perspective), while maintaining Torino's attractiveness high⁴⁸.

While it is easy to make the increasing population of the city in the 1950s and 1960s correspond to the developments of the FIAT plants, as well as the 1970-2000 decrease in numbers via FIAT lay offs, the recent city revival does not seem to have produced important population growth. However, the population decline has been halted thanks to the massive foreign immigration and gentrification processes in some once-dilapidated quarters in the old city. This may have held young, well-off citizens within it, or it may even have drawn some 'back to the city'⁴⁹. In fact, counter-urbanisation moves of young double-income couples with children had been frequent in the 1980s (and probably also in the 1990s), especially towards the outskirts of the Metropolitan Area, while the industrial laid-off workers moved towards the rest of Italy [Ocelli *et* Ferrarese 1997: 289].

4.9 Current and predictable effects of the 'Global Recession'

The available data seem to indicate that the global recession is affecting the economy of Piemonte much more on average than the other Italian regions. The regional GDP of the manufacturing industry is thought to have fallen in 2009 by 5.1% and the corresponding AV by 5.2%, both declining more than the Italian average. In 2009, Piemonte's exports fell by 22.6%, investment by more than 13%, and household consumption by 2.1%⁵⁰. The unemployment rate jumped from 5% in 2008 to 6.8% in 2009⁵¹. Wage supplementation costs in the region represent 1/5 of the national total against less than 1/10 in pay-roll employees.

At present it is not possible to analyse the trends by economic sector and type of production. Nevertheless, the automobile industry did not suffer a particularly

⁴⁸ For recent population projections for Torino see Molina [2005].

⁴⁹ But the 2002-2007 data (see Tables 9 and 10) still register negative net migration from Torino towards the other municipalities of the province (especially towards the 'second ring') and the rest of the region.

⁵⁰ Data are taken from Regione Piemonte 2010.

⁵¹ Last ISTAT data for Piemonte in the first quarter of 2010 give an unemployment rate of 8.0% (7.8% for men and 8.2% for women), ahead of 7.0% (6.7% and 7.3%, respectively) in 2009 and 4.7% (4.3% and 5.3%, respectively) in 2008, same quarter. From the first quarter of 2009 to the first quarter of 2010 also the male labour participation rate dropped from 77.0% to 76.4%, while the female one remained constant at 61%.

marked crisis in 2009, mainly thanks to large government incentives to scrap and replace the most polluting vehicles. For example, FIAT concluded 2009 with an increase in sales and market share, on foreign markets as well. However, expectations for 2010 are less favourable now that the state incentives have been discontinued and the demand for new cars will probably fall off since many buyers anticipated their needs in 2009. Furthermore, as already underlined, the delocalisation of production plants to other Italian regions or abroad has up to now reduced the share of FIAT vehicle production in Piemonte to less than 20%, so that the effects of a contraction in the market could imply the closure of plants outside the region⁵². On the other hand, there is still a large share of small and medium-sized enterprise in Piemonte that works in close connection with the automobile industry, and a contraction in sales would spread the crisis by multiplying job losses and company closures, which are also the result of difficult credit conditions. The crisis in other industrial sectors is linked more to the export crisis, which is particularly serious as regards instrumental and automation products because of the reduction in industrial investment that, in many economies, has resulted from the financial crisis.

For consumption goods and the agriculture sector, much depends on the behaviour of the related markets at the local, national and international levels. As regards local markets, in a region like Piemonte, a large proportion of elderly people corresponds to a high number of pensioners. If these people are receiving an adequate pension, a crisis that produces low inflation may not be a problem, at least initially: pensioners' purchasing power will be maintained and the economy they generate may continue at the same rate. However, against a backdrop of 'family welfare' found in Italy, as in other countries of Southern Europe, any difficulties related to the work and incomes of children and grandchildren, which have increased as a result of the global recession, are probably mitigated by economic assistance from pensioners, who in this way become involved in the crisis. However, Piemonte is less exposed to this risk in that people in the cohorts that have retired by now had fewer children and may even be childless.

Lastly, it is thought that the effects of the recession on immigrants will be more immediate and burdensome⁵³. In reality, this is certainly true for those in the temporary or substitute job positions that immigrants take up in small-scale industry, crafts, or in sectors particularly affected by the crisis such as construction. Nevertheless, it is likely that 'informal' employment will increase, since it is more flexible and less costly than regular employment. In the other sectors where immigrants are employed, and particularly in the service sector, the crisis will probably have the effect of greater exploitation, playing on real or feared competition with other immigrant workers or even with marginal groups of Italian workers who have been forced out of the regular labour market. It is too soon to see if this is actually happening in Piemonte, but some tensions between ethnic groups and the Italian population that have occurred in similar areas are sounding an alarm bell for a situation that is deteriorating.

⁵² At present, the closure by 2012 of the Termini Imerese FIAT plant in Sicily is under discussion.

⁵³ ISTAT only gives data for North/Centre/South of Italy. In the North, the unemployment rate was 14.6% for the foreign workers (13.7% for men and 16.0% for women) in the first quarter of 2010, against an average value of 6.4% in the area (5.6% and 7.5%, respectively). The relative increase in two years, however, was almost the same ($\times 1.6$).

5 Prospects for population ageing in the Piemonte region

Normally, population ageing is a progressive and spreading process: spreading, because every age group tends to be involved if the process is not reversed; progressive, because the demographic machinery is affected, thus causing fewer and fewer births as the shift of the smaller cohorts into childbearing ages proceeds.

Population ageing may be challenged in two ways: by increasing the number of newborns, which has long-term but long-lasting effects on the problem, or by including more young immigrants in the population, which has immediate effects but, eventually, may add another ageing process due to the immigrant population. The two remedies can be combined, partly through the probable increase in the birth rate due to the higher fertility among immigrant women.

The increased-births solution is impracticable on its own, both because of the individual choices involved and the amount of increase needed. For instance, in order to have the same amount of population in 2030 as in 2009, Piemonte's fertility rates would have to double, so that TFR should reach 2.75 starting from now. If we want to maintain the same proportion of elderly population (65 years and over) in 2030, 2.9 should multiply fertility and TFR should reach 4.07 children per woman immediately. No fertility increase, however, could maintain the present amount of the working-age population (20-59 years) in 2030. Actually, the effects of fertility increases on any age group are postponed for as many years as its lower limit, so that today increases would produce effects on the labour-age population not earlier than 2030.

5.1 A no-migration, constant-rates population projection

In the following exercise very simple hypotheses are adopted. The aim is to show what would happen to the population residing in Piemonte and its provinces if they were closed to migration as of now and their present mortality and fertility were maintained⁵⁴. It is only a hypothetical exercise that can turn out to be useful in understanding the in-built forces of the ageing processes and the necessity of careful interventions to combat them. Table 21 shows the rates of changes in the time-periods 2009-2019 and 2020-2029 by total population and large age groups. In Table 22 some structural indexes are reported.

The population residing in Piemonte would fall from the present 4.4 million to 3.9 million in 2030 (-13%) in the case of constant rates and no migration from 2009 on. The rate of decrease would be greater over time in all the provinces, some of which (Alessandria, Vercelli, and Biella) would suffer significant depopulation from the first time period on. A larger decrease, however, would affect the working-age population (20-59 years), which would fall from the present 2.3 million to 1.8 million (-25%) in 2030: a decrease of at least -1.5% a year would be common in most of the provinces in the 2020-2029 time period.

⁵⁴ Survival rates stem from the ISTAT provincial life tables 2007 [<http://demo.istat.it/>] adjusted to produce the actual number of deaths registered in 2009. Age-specific fertility rates are drawn from the ISTAT 2004 regional tables [<http://demo.istat.it/>] adjusted at provincial level to produce the actual number of births registered in 2009.

Table 21 Average annual rate of change of the no-migration, constant-rates projected population by age group in the Piemonte region and its provinces: 2009-2019 and 2020-2029 (%)

Region, Provinces	Total population		20-59 year pop.		65+ year pop.		80+ year pop.	
	2009- 2019	2020- 2029	2009- 2019	2020- 2029	2009- 2019	2020- 2029	2009- 2019	2020- 2029
Piemonte	-0.49	-0.77	-1.12	-1.55	+0.66	+0.47	+2.10	+0.18
Torino	-0.40	-0.74	-1.10	-1.49	+0.99	+0.52	+2.93	+0.51
Vercelli	-0.76	-0.98	-1.31	-1.81	+0.10	+0.27	+1.44	-0.66
Novara	-0.40	-0.70	-1.05	-1.52	+0.71	+0.83	+1.98	+0.01
Cuneo	-0.40	-0.62	-0.90	-1.34	+0.46	+0.56	+1.41	-0.02
Asti	-0.62	-0.81	-1.18	-1.56	+0.22	+0.36	+0.82	-0.19
Alessandria	-0.83	-1.02	-1.35	-1.89	-0.15	+0.12	+0.59	-0.44
Biella	-0.74	-0.97	-1.27	-1.75	+0.34	+0.07	+1.59	-0.19
Verbania-Cusio- Ossola	-0.66	-0.93	-1.24	-1.84	+0.65	+0.40	+2.01	+0.18

Source: Elaborations based on ISTAT data.

Table 22 Some structural indexes of the no-migration, constant-rates projected population in the Piemonte region and its provinces: 1st January 2009, 2020, and 2030

Region, Provinces	65+ yrs P. (%)			80+ yrs P. (%)			20-59 yrs P. (%)			(20-39) / (40-59)		
	2009	2020	2030	2009	2020	2030	2009	2020	2030	2009	2020	2030
Piemonte	22.7	25.8	29.5	6.2	8.3	9.2	54.0	50.4	46.2	0.85	0.59	0.72
Torino	22.0	25.7	29.5	5.7	8.1	9.3	54.4	50.3	46.3	0.87	0.59	0.71
Vercelli	24.6	27.0	31.0	7.2	9.2	9.5	53.3	50.2	45.7	0.80	0.59	0.71
Novara	21.1	23.9	28.2	5.9	7.6	8.2	55.5	51.7	47.1	0.88	0.59	0.72
Cuneo	22.1	24.3	27.7	6.3	7.7	8.3	53.6	50.7	46.9	0.88	0.66	0.77
Asti	24.0	26.3	29.9	7.4	8.6	9.3	53.0	49.8	45.8	0.83	0.59	0.74
Alessandria	25.8	27.8	31.5	7.9	9.2	9.8	52.5	49.6	45.0	0.79	0.56	0.69
Biella	25.0	28.2	31.6	7.3	9.4	10.2	52.4	49.4	45.3	0.79	0.58	0.74
Verbania- Cusio-Oss.	23.2	26.8	31.0	6.4	8.6	9.7	54.0	50.7	45.8	0.79	0.56	0.72

Source: Elaborations based on ISTAT data.

On the contrary, the elderly and oldest age groups would increase⁵⁵, though not uniformly either over time or in the provinces, due to the different times of passage through those age groups and the residual dimension of the cohorts born during World War Two and the 1960s' baby boom. The amount of the 65 years and over population would exceed 1.1 million in 2030 in the region, starting from the present 1 million (+13%). The 80 years and over will increase to 355,000 from the present 276,000 (+28%).

The share of the elderly and oldest age groups would become significantly greater in 2030 under the assumed hypothesis: around 30% in every province for the 65 years and over population; 8-10% for the 80 years and over population. By contrast, the share of the working-age population would reduce to less than half of total population everywhere, while its internal structure (younger vs. older potential workers) would suffer an important crisis around 2020, when the small cohorts born in the last part of the past century will be present in working ages alongside the large cohorts born in the baby-boom of the 1960s. In the following years this structure will find a new equilibrium at a lower level than nowadays.

⁵⁵ This will happen anyway, disregarding the hypothesis made. In fact, possible further lengthening of life could add some points to those increases.

The exercise described above raises a more difficult problem to solve: the shrinking of the working-age population may lead to a reduction in the labour supply. The workforce would fall from the present 2 million in the Piemonte region to less than 1.5 million in 2030 if the age-specific labour participation rates remain constant. If we consider that labour participation rates in Piemonte are among the highest in Italy, and for women as well (more than 80% in the central age groups), only the lengthening of working life could tackle that shrinkage, and only partially, in any case. A cutback in the workforce in the region must be envisaged in the near future, starting from today's resident population. In this case, only important increases in labour productivity could maintain the regional GDP and standard of living at the current levels. The second option relies on important inflows of immigrant workers to fulfil the most probable labour shortages.

5.2 How much net migration to maintain demographic equilibrium?

Evaluating how many immigrants are needed to maintain either i) the present amount of total population in Piemonte, or ii) the amount of its working-age population, or iii) the share of its elderly population, can complete the preceding exercise. The aim is to show how difficult it would be to maintain those hypothetical equilibriums.

In Figure 5 the annual net migration needed to alternatively satisfy these three targets is shown. Consider that the average annual net migration in the last eight years has been about +35,000 in Piemonte, including both internal (less than 10%) and international migration. Apart from the considerable net migration needed to maintain elderly population at a constant share⁵⁶, the numbers required seem affordable year by year in view of the recent experience. Also the economically most important target – to maintain the working-age population at a constant amount – could be fulfilled by a yearly net migration of +20,000÷35,000 of the same population, i.e. +30,000÷45,000 migrants aged 0-59 years⁵⁷.

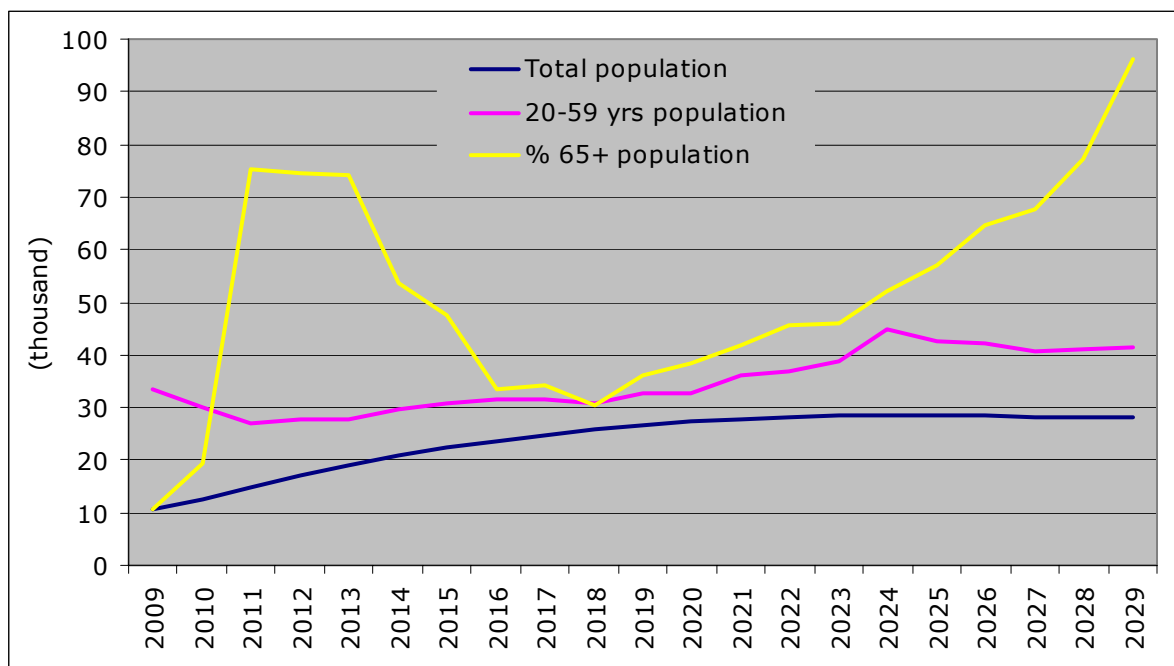
Problems arise from the cumulating effects of these flows. For instance, the net migration necessary to maintain the working-age population constant until 2030 in Piemonte would eventually add 658,000 foreign immigrants to the present foreign population (350,000), without considering any offspring. The share of foreign population would grow from the present 9% to 25%⁵⁸, unless naturalisation procedures were widely applied to changing foreign citizens into Italian nationals.

⁵⁶ This is due to the post-war and the baby-boom cohorts moving into the elderly ages.

⁵⁷ Net migration is calculated as a residue, by gender and single age, in 2008. Only the 0-59 yrs age-span is considered.

⁵⁸ It is interesting to note that in 1981, after more than 25 years of immigration, 17.5% of the resident population in Piemonte was born in Central or Southern Italy, 5.6% in other regions of Northern Italy, and 2% abroad.

Figure 5 Annual net migration necessary for maintaining the listed variables constant in the Piemonte region: 2009-2029



Source: Elaborations based on ISTAT data.

5.3 The DEMIFER scenarios

Population forecasts are particularly questionable when the demographic change depends on facing trends in its components. This is especially the case when the internal forces make the population decrease quickly while immigration challenges this trend: even the sign of future population trends shall depend on the hypothesis about the amount of immigration, whether sufficient or not to fulfil the progressive losses in the domestic population. Equally, future population ageing shall depend on the amount and the demographic structure of the hypothesised migratory inflows.

The Piemonte region is just on the borderline of a self-declining and fast ageing population to which important numbers of young foreign immigrants have added to in recent years. Should these trends continue in future times, cumulative effects would reinforce the upward process – total population increase and slowdown in population ageing – also through the immigrants’ offspring.

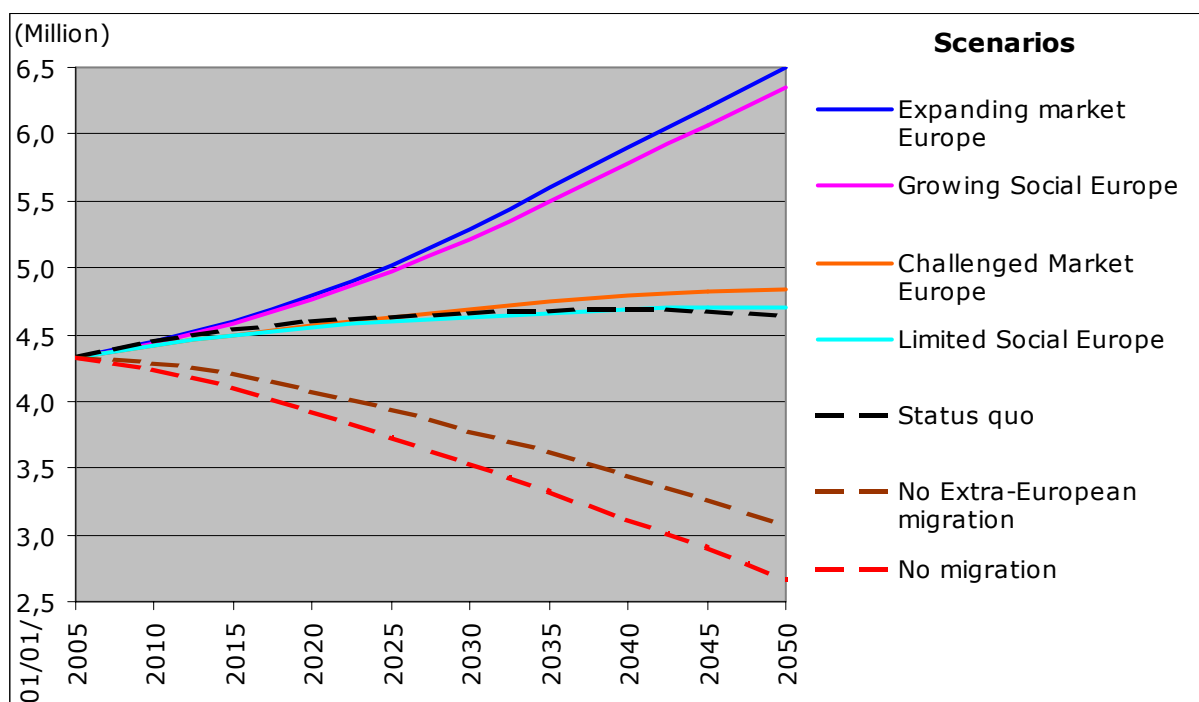
DEMIFER scenarios catch recent population trends and project them into the future following very different hypothesis (Figure 6). The reference scenarios perfectly describe the importance of immigration – mainly extra-ESPON immigration – in preventing the Piemontese population from decreasing in numbers: only the ‘Status quo’ reference scenario succeeds in maintaining the regional total population at around 4.5 million, slightly increasing till 2040, then decreasing.

The ‘low’ policy scenarios in either economy-environment or distribution-fairness do not depart too much from the population trend under the ‘Status quo’

scenario, except in the last projection years, where they keep the population growing still. Both the 'high' policy scenarios, on the contrary, foresee a very strong increase in the population residing in Piemonte, which should be multiplied by about 1.4 in forty years and seems to proceed linearly also after 2050 at an annual rate near to 1%.

If the actual trends in the past decades are considered, it seems difficult to concede the 'high' trends foreseen for the population in Piemonte. Actually, it increased at a pace of about 1% between 1951 and 1971, then slightly reduced till 2001. Since the beginning of the new century it has been increasing at an average annual rate of 0.5%, only thanks to a net migration of about +35,000 a year, on average. In the 'Expanding Market Europe' scenario the annual net migration is projected to be even higher than +60,000, and +55,000 in the 'Growing Social Europe' scenario. Natural increase is supposed to become positive only in the latter scenario and starting from the '30s, but natural flows would reduce the regional population anyway in the 2010-2050 time span. The share of the international net migration from the non-ESPON countries is supposed to be 80-90% in the 'Growing Social Europe' scenario and 80-100% in the 'Expanding Market Europe' scenario, i.e. the two 'high' policy scenarios foresee annual immigration flows from the non-ESPON countries of 34,000÷53,000 and 36,000÷68,000, respectively.

Figure 6 Population trends in the Piemonte region according to the DEMIFER scenarios: 2005-2050



Source: DEMIFER scenarios.

It is interesting to note, however, that population ageing is only challenged by such huge immigration flows, not defeated. In 2050, the Old-age Dependency Ratio (ODR, ratio of population aged 65 years and over to population in the age group 15-64 years) should grow from the present 35% to 50% in the 'Expanding

Market Europe' scenario and to 60% in the 'Limited Social Europe' one. ODR in 2050 could be substantially lower (45%) in the 'Status quo' scenario, but substantially higher if migrations were hindered, either totally (68%) or only from outside the ESPON countries (61%).

5.4 Other regional population projection

For comparison, in Table 23 results from population projections for Piemonte by some other agencies are given⁵⁹. Much of the different results depend on the different hypotheses in net migrations. Natural change remains negative in all projection and time periods. Total change also falls in the negative eventually. The share of elderly population rapidly shifts to high values, almost without distinction among the different projection and scenarios.

Table 23 Population projections for Piemonte by some agencies: EUROSTAT (Convergence Scenario); ISTAT-2007 (Middle Scenario); IRES-2006

	2010 ^(a)			2020 ^(b)			2030		
	EURO STAT	ISTAT C.S.	IRES 2006	EURO STAT	ISTAT C.S.	IRES 2006	EURO STAT	ISTAT C.S.	IRES 2006
Total population (million)	4.42	4.47	4.42	4.46	4.56	4.65	4.43	4.56	NA
65+ yrs population (%)	23.0	22.7	25.6	25.2	24.5	24.7	28.1	27.1	NA
Total change (‰)	+2.3	+5.9	+4.1	-0.5	+0.3	+5.8	-0.7	-0.1	NA
Natural change (‰) ^(c)	-3.0	-1.9	NA	-5.3	-3.3	NA	-5.5	-3.6	NA
Internal net migr. (‰)	-0.1	-0.1	NA	...	-0.3	NA	...	-0.5	NA
External net migr. (‰)	+5.4	+8.0	+6.1	+4.8	+4.0	+5.8	+4.8	+4.0	NA

Notes: ^(a) For IRES, 2011; ^(b) For IRES, 2021; ^(c) For IRES, annual average 2006-2015 and 2016-2025.

Legenda: C.S. = Central Scenario; ... = Less than half of the minimum displayed; NA = Not Available.

Source: Elaborations of the relevant databases.

ISTAT also gives the population in 2051, to be compared to DEMIFER projections. Three scenarios are envisaged from 1/1/2007 to 1/1/2051:

- Middle scenario, which foresees the final population at 4.52 million in the region, decreasing at an annual rate of -1.4‰ (natural change -4.9‰), with an ODR at 59%, and 21% foreign residents;
- Low scenario, which foresees the final population at 4.03 million in the region, decreasing at an annual rate of -4.9‰ (natural change -7.8‰), with an ODR at 59%, and 19% foreign residents;
- High scenario, which foresees the final population at 5.00 million in the region, increasing at an annual rate of +3.9‰ (natural change -2.4‰), with an ODR at 57%, and 21% foreign residents.

ISTAT scenarios are more conservative than the corresponding 'policy' scenarios by DEMIFER, as well as the 'status quo' one: 2051 total population does not go over 5 million, while the DEMIFER 'best' scenario foresees 6,5 million in Piemonte by 2050. Population ageing turns out to be higher in ISTAT projections and steadier (ODR always around 58%) under the different hypotheses (ODR moves from 50% to 63% in the DEMIFER 'policy' scenarios, instead).

It is also interesting to compare the three ISTAT scenarios at 2030 with our no-migration, constant-rates projection, which foresees the 1/1/2030 population at

⁵⁹ For other projections by IRES-Piemonte based on socio-economic scenarios see Abburrà et Migliore [2004].

3.85 million in the region, decreasing at an annual rate of -9.3‰ , with the 65+year-old population at 30%, and 60% in working age⁶⁰:

- Middle scenario, which foresees the 1/1/2030 population at 4.56 million in the region, decreasing at an annual rate of -0.1‰ , with the 65+year-old population at 27%, 60% in working age, and 16% foreign residents;
- Low scenario, which foresees the 1/1/2030 population at 4.34 million in the region, decreasing at an annual rate of -3.0‰ , with the 65+year-old population at 27%, 61% in working age, and 15% foreign residents;
- High scenario, which foresees the 1/1/2030 population at 4.77 million in the region, increasing at an annual rate of $+2.5\text{‰}$, with the 65+year-old population at 27%, 60% in working age, and 17% foreign residents.

⁶⁰ It should also be remembered that, in having immigration in order to maintain the working-age population constant, and thus reaching a total population of 4.16 million in the region at the beginning of the 2030s, we foresee the foreign residents at 25%, not considering their offspring nor possible naturalisations that, on the contrary, ISTAT considered in its projections.

6 Conclusions and generalisation of the case study

The Piemonte region epitomizes the challenge of ageing in a dynamic context very well. It has been experiencing population ageing since the beginning of the past century. Nevertheless, the region has been developing almost continuously, maintaining a forefront position among the Italian regions. The drawbacks and crises that have interested the regional economy since the 1970s must be ascribed to the regional productive system, too centred on the automotive industry and unable to fast innovate, more than to population trends and ageing. Actually, whenever the regional labour market found any quantitative or qualitative labour shortage, population moves were stimulated: in earlier times internal moves from the mountains to the hills and plains of the region; in the 1950-1960s economic boom immigration from other Italian regions and especially from the South; in recent times important immigration from abroad. Although a view of self-governing mechanism must be avoided because of large amounts of push flows, the pull effects by a vital socio-economic environment in the region must be appreciated.

Immigration, however, not only filled up the labour market shortages, but every time it also counteracted population ageing and decline in the most economically and socially developed area of the region. The arrival and settling of young people and couples granted an immediate support to the demographic change and to the young/elderly ratio, as well as a deferred spur to local births and fertility levels. The migrants' settling was never easy, neither from a practical nor cultural point of view. This is particularly true for a large part of the present immigrants who come from the Third World or the poorest EC countries. Nevertheless, their economic and demographic contributions prove to be essential to maintaining the economic and demographic vitality in the region.

This two-way linkage between immigration and regional vitality is the focal point on which the regions in the 'challenge of ageing' cluster stand. If regional vitality fades down and/or migrations are hindered, the region is destined to tailspin into the 'challenge of decline' cluster. For that reason the extensibility of the Piemonte case study is limited backward to regions having a similar history in the socio-economic transformation and demographic decline, and forward to those able to maintain capability in socio-economic innovation and migrants' integration.

Recent changes in Piemonte show the search for new dimensions after the industrial crises in the last quarter of the past century. The process is far from completed but the regional economic panorama has widened and the social and cultural life has flourished in respect to the 1990s. The 'big event' Torino 2006 Winter Olympic Games probably fostered those changes, at least in the capital city and some other areas, though its final economic result is probably negative.

However, much must be done on the side of migrants' integration. Their territorial settling, housing, job, standard of living, family conditions, etc. are often beneath acceptable standards and, often, lower than the migrant's education and work ability should grant. It may be that from a short-term point of view this setting is much more profitable for the regional economy, policy and natives' society. In a long term, however, the social cohesion is jeopardised, with possible consequences also on population trends and structures.

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