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DEMIFER

Demographic and migratory flows affecting European regions and cities

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DEMIFER Case Studies

The Piemonte Region (Italy)

‘Challenge of ageing’ faced by immigration

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The Italian region Piemonte and its provinces



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Executive summary

As Alfred Sauvy predicted in 1989, population ageing is a common destiny for the 21st century populations. The slowdown of population growth actually entails the shift of the comparatively larger cohorts into older ages, thus causing a general ageing of the population structure and, eventually, the increase of the elderly. Europe – with its demographic history marked by intense emigrations overseas, two ruinous wars and precocious 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 dynamics.

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. Their socio-economic and demographic recovery, however, may come from the local capability in reshaping their socio-economic environment and/or from any external 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 preceding decades rather than from intense depopulation in the working-age population: the seed of the socio-economic and demographic 'renaissance' is maintained there against the regions predominantly made up of elderly, retired people.

The Italian Piemonte region is just one with a long-term ageing process affecting its population, mainly because of low fertility, which began in the first half of the last 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 Piemonte with couples that had higher fertility models than the native ones. Population ageing was contrasted 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 several 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 families' problems in house keeping, child assistance and elderly nursing. Actually, the Piemontese men and women are engaged largely in productive work, while the welfare facilities offered there are clearly insufficient to cover the above-said needs.

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 housemaids 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 native fertility has increased a little, though maintaining the population natural change in the negative.

The substantial contribution of 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 contrasted the important reductions coming from the insufficient cohort turnover in the native population. However, the analysis also shows an internal reaction by 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.

Population ageing can hardly be reversed by immigration, however, unless huge numbers would come in following a quite absurd stop-and-go immigration policy. A steady working-age population, on the contrary, might be achieved by letting migration flows similar, in amount, to the flows registered on the average of the last five years. But the problem of their accumulation would grow with time, so that in the 2030s foreigners might be more than 1/3 of the population in Piemonte. A policy of full integration and naturalisation is hence necessary to overcome problems from a regional population split into ethnic groups, with different standards of living, rights and future chances compared to the nationals.

Recent population migration trends in the region, driven by foreign immigration, make DEMIFER scenarios foresee an increasing population in Piemonte unless migration flows are stopped, totally or only from the countries outside Europe. The effects of population ageing will not be offset, however, since all the relevant indexes are fast increasing even in most favourable scenarios.

The Piemonte case study can be considered paradigmatic for the ESPON regions challenged by population ageing provided that it does not come from a mass emigration of the young or working-age population. If the demographic core of socio-economic development is maintained the problems from population ageing can still be tackled by modifying the socio-economic environment through better utilisation of the inner potentialities (the elderly workforce included), innovations (also from any 'big event'), and a fair settlement of immigrant populations attracted to the region just by those changes and the following labour demand.

1 Introduction

The DEMIFER 'Case studies' have a twofold aim: they contribute to improve the knowledge on demographic and migratory flows focusing on the aspects of internal and international migration, and to translate 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 and 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.

In Italy, the Piemonte region belongs to the 'Challenge of ageing' cluster, which includes 33 ESPON regions. With the exception of some regions in Great Britain (Devon, Dorset and Somerset) and in Greece (Ipeiros), 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) come belong to this typology. 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 and that of the 20-39 year-olds more or less reflect 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 cluster, but it is also at the 10th place in the descending ordered list of all the ESPON regions by the share of elderly population.

Looking at the relationships between structural and dynamic variables used in the DEMIFER classification it is interesting to note that the 33 regions included in the 'Challenge of ageing' cluster show a negative relationship 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. There are reasons for that in 'backward' regions: emigration from them makes their population older and older by subtracting people of working (and childbearing) age; when the emigration process dies down the remaining population in the area lacks potentialities for either rejuvenating itself by a sufficient number of newborns or attracting immigration by economic development and innovation.

However, this is not the case for the 13 Italian regions in this cluster: they show a slightly higher net migration rate where the elderly population share is larger. 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. In fact, the 13 Italian regions in the cluster are the economically most developed in Italy. Piemonte is exactly in the centre of this scatter plot. It can well represent the positive linkages that may be set between population ageing and immigration.

1.1 Specification of the research questions and aims

Population ageing is a widespread phenomenon in the ESPON regions. Among the 30 oldest countries in the world, 24 are ESPON countries¹. In a weighted average of the 278 NUTS2 regions for which a calculation can be made (out of 282 ESPON regions in all), the share of the population aged 65 years and over was 16.2% at the start of 2003: in 147 regions this share was larger, with the largest share of 26% in Liguria (Italy)². The share of the elderly population grew between 1997 and 2007 in most of the ESPON regions for which this comparison can be made, in particular in Southern and Central-Eastern Europe, with the greatest increase of more than 4 percentage points occurring in the Greek region Macedonia³.

The demographic factors of population ageing are different and vary in importance according to the current phase of the phenomenon. Furthermore, ageing tends to steadily affect all the different age groups and, in particular the working-age population. The levels that population ageing has 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 involved 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 which the population lives.

In order to use the case study as a paradigm it is therefore indispensable to know the situation of population ageing in the Piemonte region, the demographic history that has produced it, and the effects and problems that ageing may cause in the regional labour market and economy.

Of course, if mortality is stable or decreasing, the ageing of a population can be countered by an increase in births and/or by further immigration. New migrants can introduce younger people into the immigration region, instantly reducing the share of the older population and, if the immigrant population is structured and settled correctly, immigrants' offspring 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 and also because of a rise in local fertility, either because immigrant women have higher fertility, in general, or because of a recovery from the 'lowest-low' fertility level of the native population.

A second research question is therefore to discover if there are any factors contrasting 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 as well as the regional economy; 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 Statistics based on the share of the population aged 60 and over [UN, *World Population Ageing 2007*].

² ESPON database.

³ Based on EUROSTAT data.

1.2 Historical and economic background

In Italy, the Piemonte region has always been a forerunner in many ways. Under the reign of the Savoia family, Piemonte extended into the Kingdom of Italy in the second half of the 19th century. The capital of the kingdom was then moved from Torino 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, the Piemonte's capital city, which together with Genova and Milano, was one of the first centres of industrialization – in the modern sense – in Italy. 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 makes (FIAT, Lancia, SPA, Cisitalia, etc.) and through several car-body designers famous the world over (Pininfarina, Bertone, etc.).

Equally important is the geomorphologic heterogeneity of the region which, together with agriculture's abundance and capacity to evolve [Castronovo 1977], slowed down sectoral changes in its labour force compared with the regions of Liguria and Lombardia, so that until the mid-1920s agriculture still employed the majority of the Piemonte's labour force [Guarini 1975].

Piemonte can also be considered a forerunner in terms of demographic behaviour and trends. As regards mortality, despite important internal differences in living conditions between mountain and lowland areas, in 1863-1879 Piemonte was one of the first three Italian regions with the lowest child mortality (up to three years of age) [Bellettini 1981]. 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 happened shortly after World War 1st, 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 contacts with neighbouring France, more modern in reproductive behaviour. Even before Italy unification, there many migrants, mainly seasonal, used to go from Piemonte, as well as from Liguria and Toscana, to France: from there, they 'imported' attitudes and methods for the fertility control now necessary in an industrialising and urbanising society.

The economic-industrial boom after World War 2nd was seen in all the lowland area 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 1973: 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, 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 years. 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 boost to births in 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].

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. Apart from some leading companies in the field of precision mechanics and automation, the Piemontese industry suffered a long crisis, mainly due to the delocalisation of the FIAT plants to other Italian regions and overseas. But, 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 were 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. Nevertheless, previous decentralization of the FIAT plants reduced the impact of the more recent crises suffered by the Piemontese economy [Castronovo 1999; Enrietti & Lanzetti 2002; Volpato & Zirpoli 2006]. FIAT's recent 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 thanks only to government incentives for scrapping old vehicles. In the meantime, the regional economy has undergone a progressive post-industrial transformation, which 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, as well as specific parts of the region, received a decisive boost to renew and modernize⁴.

Once again, the demand for labour did not find an adequate response, in either quantitative or qualitative terms, from the local supply of workers who were 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 1970s⁵. 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.

1.3 Regional morphology, connections, and human settlement

The territory 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'Azur⁶, while the Appennines separate Piemonte from the Ligurian coast. 30% of Piemonte is hilly, especially in the north-west (Canavese), centre (Monferrato) and south (Langhe); the remaining area is flat plain. 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.

⁴ Numerous studies on the economic and territorial effects of the event and its preparation preceded and followed the 20th Winter Olympic Games, including: Occelli 2000; Guala & Bobbio 2002; Dansero *et al.* 2003; Segre & Scamuzzi 2004; Mela *et al.* 2006; Guala *et al.* 2007; and Guala 2009.

⁵ In reality, partly for reasons we will examine later, in the years from 1964 to 1971, the cross-sectional TFR was only slightly above 2.1.

⁶ 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.

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 covers 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 away from Malpensa International Airport.

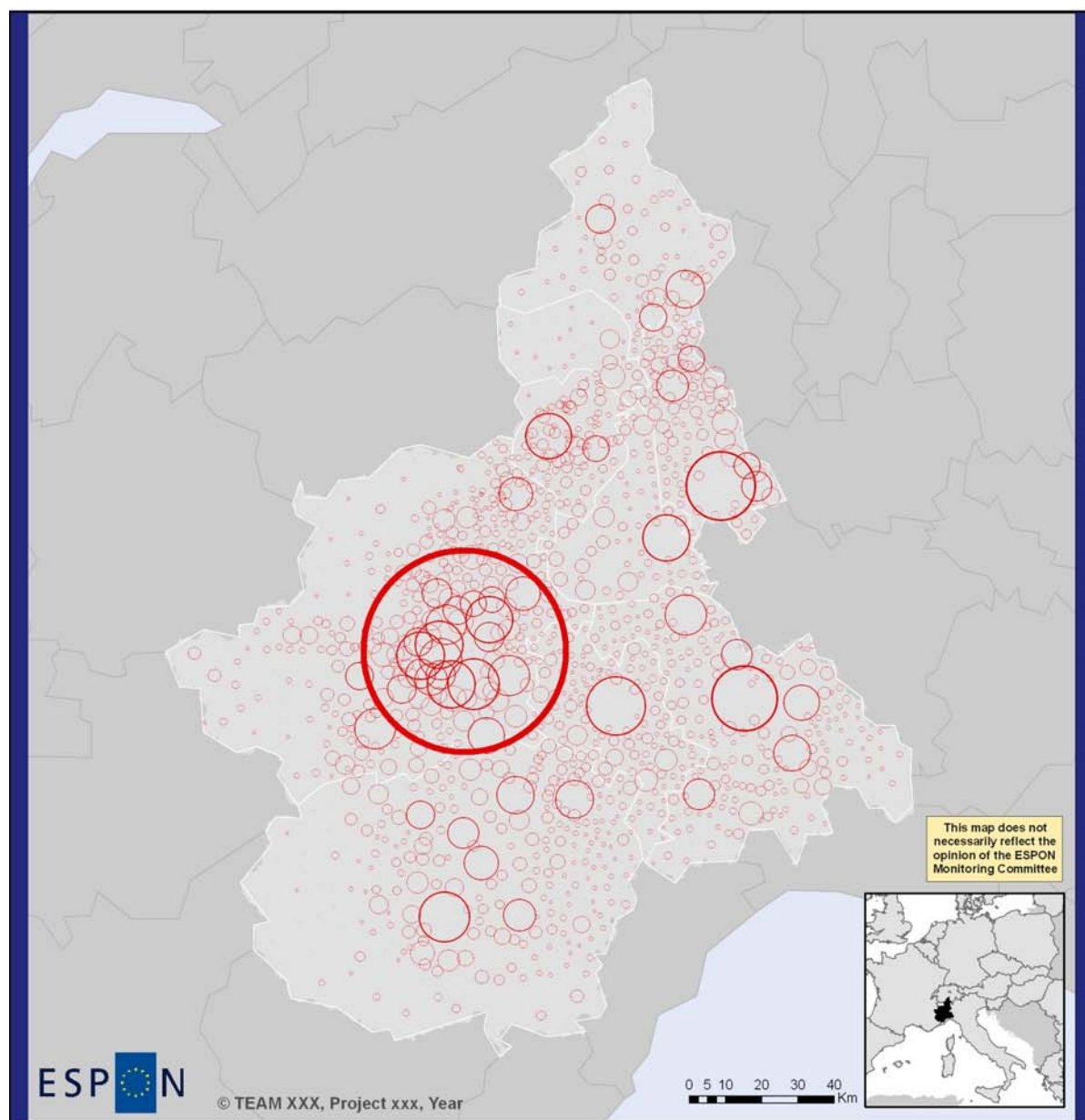
Piemonte's population is widely dispersed across the region. At the 2001 Population Census, just fewer than 7% of the population lived in isolated dwellings (but more than 18% in the agricultural province of Asti and 16% in the mountainous province of Cuneo). The rest of population lived in a good 7,654 communities, collected into 1,206 municipalities, which ranged from 46 to 865,263 inhabitants. Only 53 communities numbered more than 10,000 residents; only 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.

Though 1/5 of the regional population (4,432,571 in total, on 1 January 2009) is resident in the municipality of Torino (908,825 inhabitants) and about 2/5 in its Metropolitan Area⁷ (1,742,773), 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 productions. 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 good wines and the industrial transformation of hazelnuts).

The population settlement (Map 1A) follows the regional morphology and the cumulated effects of the local different economic developments and recessions. The recent population increases/decreases (Map 1B) mainly come from the ageing of the demographic structures to which immigration flows may oppose in a more or less efficacious way.

⁷ 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 which, including the town of Torino itself, is called the "Metropolitan Area of Torino".

**Map 1A Municipalities by the resident population in the Piemonte region:
1/1/2009**



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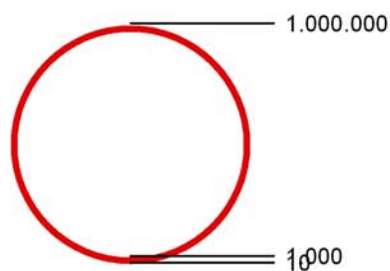
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Origin of data: xxx, year

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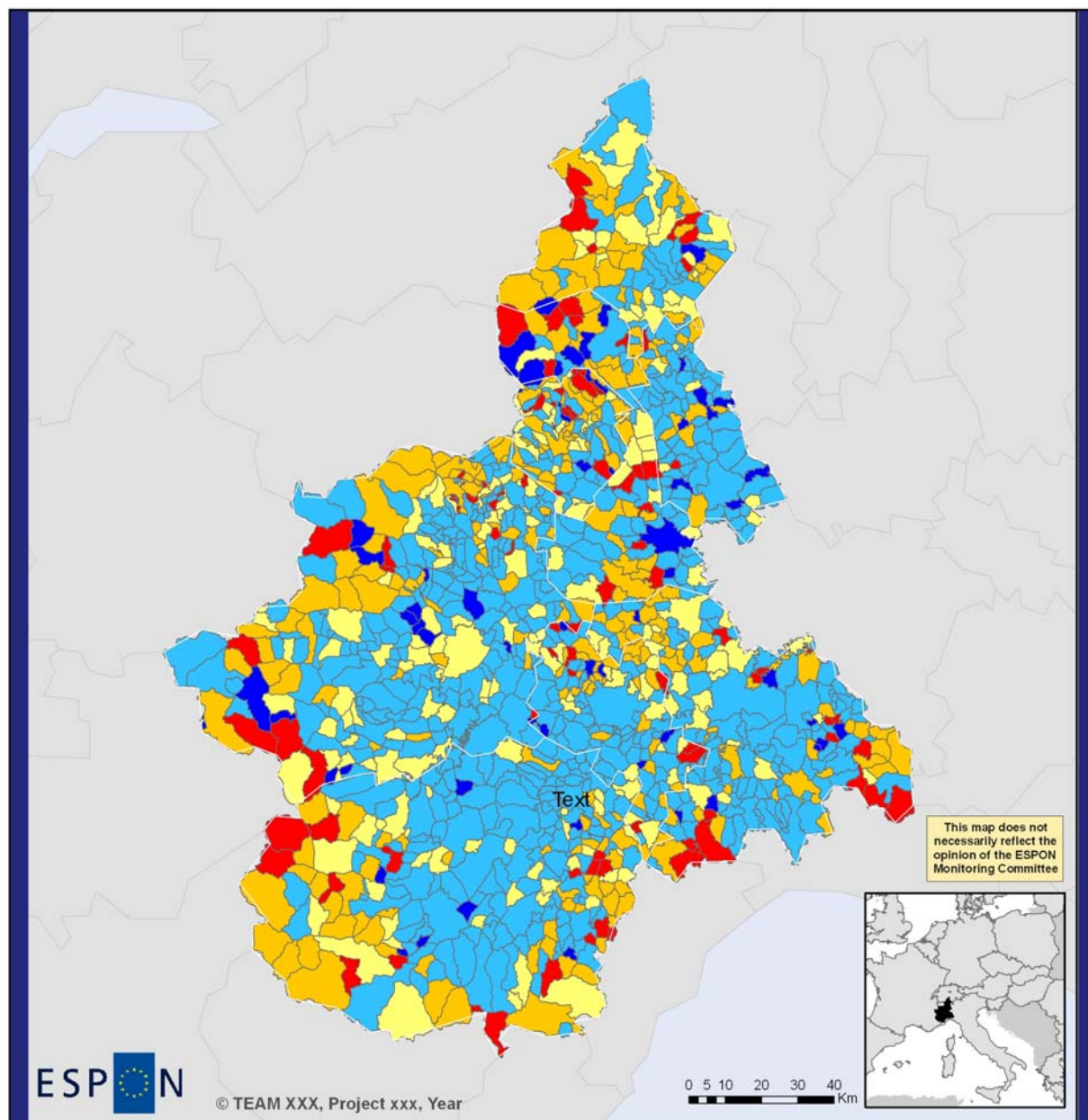
Legend

Population 1.1.2009



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

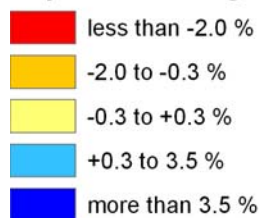
Map 1B Municipalities by the annual rate of population change in the Piemonte region: 2008 (‰)



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Legend

PopulationChangeRate2008



Local level: LAU2
Source: xxx, year
Origin of data: xxx, year
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Source: Elaborations of data from the ISTAT database available at <http://demo.istat.it/>.

1.4 Outline of the case study report

After 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 (Section 2), the recent demography of the region will be 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 then be analysed (paragraph 3.5). Section 4 will deal with the effects of population dynamics on the labour market within the framework of local economy and relevant changes in recent times. In Section 5, education and social networking will be considered in respect to the characteristic and changes of the population residing in the region. Some hints on the economic and social consequences of the demographic change in Piemonte will be given in Section 6 *(to be completed in the final version)*, where also a quick look at the current and predictable effects of the 'Global Recession' will be attempted. The possible futures of population ageing in Piemonte will be examined in Section 7 through either an exercise of no-migration, constant-rates population projection, or the DEMIFER scenarios. Conclusions will be drawn in Section 8 *(to be added in the final version)* 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 Italy and Northwestern Italy will be reported.

2 Review of the existing studies of demographic and migratory flows in the Piemonte region

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

The first phase, at the end of the 19th and beginning of the 20th centuries, 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 America, and yet others headed for the towns in the plains, where the various industrial systems were springing up.

During the Fascist period, in an attempt to deal with the effects of the Great Depression, the authorities attempted to evacuate the towns, mainly to exercise political and social control over the working class. The exodus from internal areas started up again after the World War 2nd, 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, combining part-time farming was only possible in some districts and for particular industries and processes. In general, there was massive urbanization towards most of the towns, and there was no need this time for large-scale emigration abroad. On the contrary, the demand for labour on the part of Piemonte's industrial system was sufficient to attract immigrants from Veneto and Emilia-Romagna, in the North, and then from Puglia, Sicilia and, in general, from all the regions of 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 to the 'Industrial Triangle' formed by Torino, Milano and Genova [Galeotti 1971; Golini 1973].

Part of that immigration replaced the 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 the Southern Italy [Fofi 1964].

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 of 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].

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. 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 1/5 and, in some provinces, even larger than 1/4; ii) a negative natural change, which from an annual –7‰ in the Alessandria province rises to –1‰ in the province of Torino. Today, in the suburban municipalities of the Torino Metropolitan Area more births than deaths are still being registered; iii) a significant flow of immigrants from abroad which makes net migration positive, reaching up to an annual 7-9‰ 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 agricultural province of Vercelli. High immigration has kept total population change above zero in the period 2002-2008, 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 Italy.

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

Reference areas, Region, Provinces, Torino MA	1/1/2009 resident population			2002-2008 average annual rate (‰)			
	Total (th.)	≥ 65 yrs (%)	Foreign citizens (%)	Total change	Natural change	Domestic net migration	International net migration
ITALY	60,045.1	20.1	6.5	+7.83	-0.14	+0.26	+7.72
North-West Italy	15,917.4	21.4	8.6	+9.70	-0.65	+1.63	+8.71
Piemonte	4,432.6	22.7	7.9	+5.64	-2.46	+0.64	+7.46
Torino	2.291.0	22.0	8.1	+5.75	-1.07	-1.19	+8.01
Vercelli	180.1	24.6	6.7	+0.84	-5.13	+0.51	+5.47
Novara	366.5	21.1	8.0	+9.57	-1.66	+4.11	+7.12
Cuneo	586.0	22.1	8.3	+7.27	-2.38	+2.57	+7.09
Asti	220.2	24.0	9.6	+7.30	-4.61	+3.01	+8.90
Alessandria	438.7	25.8	8.4	+4.47	-6.77	+3.27	+7.97
Biella	187.3	25.0	5.4	-0.39	-4.90	+0.53	+3.98
Verbania-Cusio- Ossola	162.8	23.2	5.1	+2.96	-3.66	+1.74	+4.89
<i>Municipality of Torino</i>	<i>908.8</i>	<i>23.8</i>	<i>11.3</i>	<i>+2.36</i>	<i>-1.66</i>	<i>-8.08</i>	<i>+12.10</i>
<i>Rest of the Torino Metropolitan Area</i>	<i>833.9</i>	<i>19.7</i>	<i>4.7</i>	<i>+7.65</i>	<i>+1.09</i>	<i>+1.75</i>	<i>+4.80</i>

NB: Due to other formal registrations, natural and migration changes do not sum up to total population change.

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

Compared with the other regions in North-Western Italy⁸ and with the rest of Italy, Piemonte is representative of 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; this trend is opposed, more or less validly, by foreign immigration and a stable resident foreign population which bring the total population change to plus figures and reduce the effects of 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 country 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 the decrease 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. Naturally, 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 development 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

⁸ North-Western Italy comprises four regions: Piemonte, Valle d'Aosta, Lombardia, and Liguria.

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 a reduction in the share of the working-age population and ageing within it. 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 components⁹, on the other hand, have countered the effects of population ageing by adding immigrants to the young working-age population.

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
<i>Cohort turnover</i>	+2.2	+1.7	+2.8	+2.1	+0.4	+0.4	-0.1	+1.1
<i>Mortality change</i>	+0.1	-0.1	+0.4	+0.4	+0.1	...	+0.1	+0.2
<i>Fertility change</i>	-0.1	...	...	-0.1	...	...	...	...
<i>Mixed endogenous change</i>	...	...	...	+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
<i>Cohort turnover</i>	-0.3	-3.7	-0.7	-2.2	+0.02	-0.08	-0.05	-0.24
<i>Mortality change</i>	-0.1	+0.5	-0.3	-0.3	...	+0.05	...	...
<i>Fertility change</i>	-0.3	...	...	-0.2	-	-	-	-
<i>Mixed endogenous change</i>	...	...	...	+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

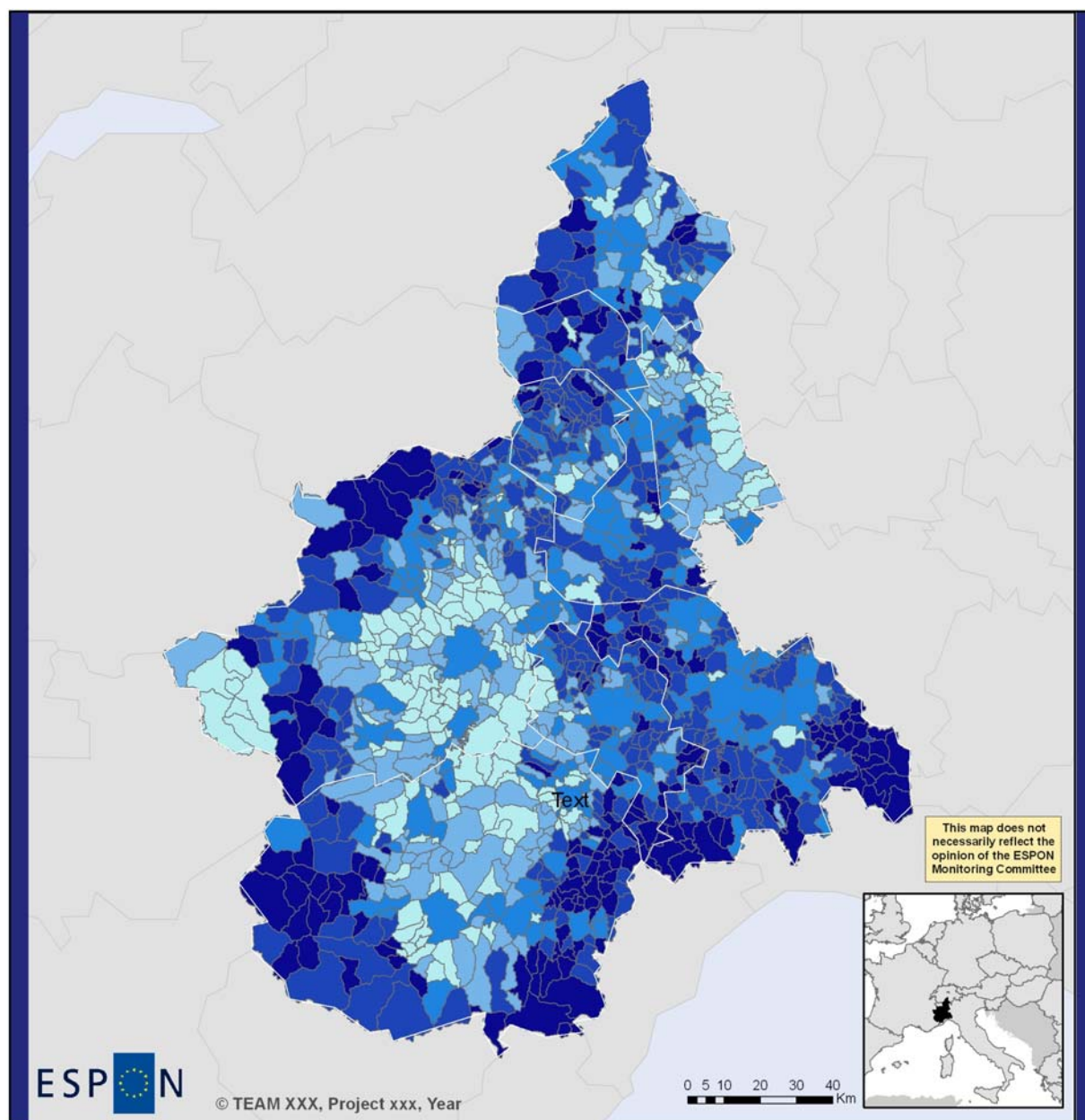
Legenda: ... = Less than half of the minimum displayed; - = No effect in the time period.

Source: Elaborations based on ISTAT data.

The age structure of the population, however, has suffered from an increase in the share of old people (80 years and over) in all provinces, and the trend continues. In the last few years, the increase in the share of the elderly population (65 years and over) has stopped or even been reversed, although not in the municipality of Torino or in its metropolitan area (Table 4 and Map 2). Part of this temporary slowdown in population ageing is due to the recent entering of the reduced cohorts born during the World War 2nd in the 65 year-and-over olds.

⁹ 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.

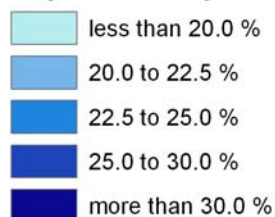
Map 2 **Municipalities by the share of elderly resident population (65+ yrs) in the Piemonte region: 1/1/2009 (%)**




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Population 65 years and older 1.1.2009 (%)



Local level: LAU2

Source: xxx, year

Origin of data: xxx, year

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

From Map 2 it is evident the high share of elderly population in the municipalities on the mountains that circle the region, apart some exception mainly due to ski-sport resorts (e.g., Sestrière) or other tourist attractions. Population ageing, however, affects also large parts of the hills in the south-east.

Despite young immigrants, the fall in the share of the working-age population (20-59 years) has continued and today accounts 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 increasing everywhere, although it remains below 1/5 of total population.

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

<i>Reference areas, Region, Provinces, Torino MA</i>	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-Oss.	19.0	16.0	16.2	57.5	55.8	54.0	19.3	22.9	23.3	4.2	5.2	6,4
<i>Municipality of Torino</i>	<i>17.7</i>	<i>14.9</i>	<i>15.8</i>	<i>58.5</i>	<i>55.2</i>	<i>54.1</i>	<i>24.8</i>	<i>19.9</i>	<i>23.7</i>	<i>3.9</i>	<i>5.1</i>	<i>6,4</i>
<i>Rest of the Torino MA</i>	<i>22.8</i>	<i>18.2</i>	<i>18.3</i>	<i>60.6</i>	<i>58.7</i>	<i>55.2</i>	<i>14.1</i>	<i>19.9</i>	<i>21.9</i>	<i>2.5</i>	<i>3.2</i>	<i>4,6</i>

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

3.2 Population change and its components

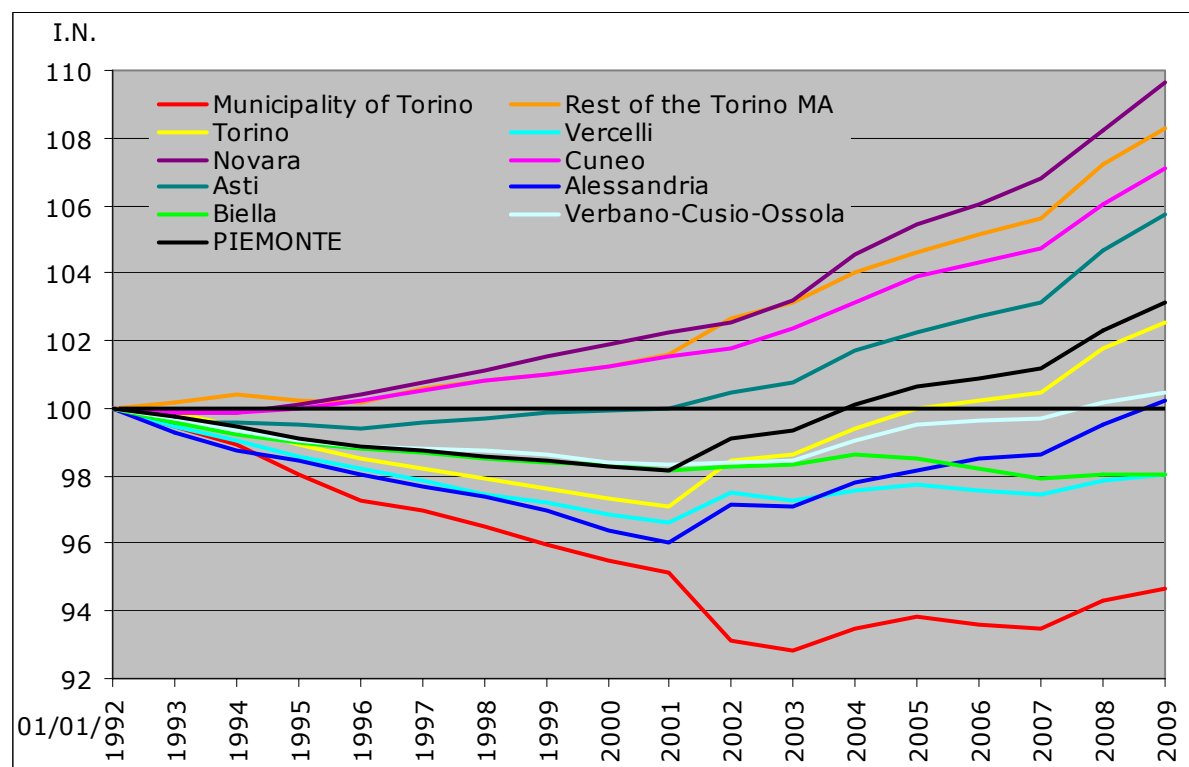
The effects over time of these contrasts between internal demographic dynamics and the direct and indirect additions of population from outside the region are clearly visible from the population trends from 1992 to 2009 in the provinces of Piemonte (Figure 1). The decrease in most of the provinces in 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 on¹⁰. However, the population of the municipality of Torino, notwithstanding the important immigration from abroad that has joined it, could only reverse its trend, but it could not make population up to its early amount.

The importance of foreign immigration for the recent increases in the population in Piemonte, as in all its provinces (except Biella), seems clear from the

¹⁰ The undercounting in the 2001 Population Census and the subsequent corrections may have emphasized the increase. The late registration of the foreign resident population after the 2002 regularization should also be taken into account. The Author has taken these factors into account in estimating the 2002-2008 data.

cumulative histograms in Figure 2. A positive international net migration contrasts the natural change that is always negative everywhere¹¹. The internal net migration¹², 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-Cusio-Ossola and the agricultural province of Vercelli have registered a near-zero domestic net migration. The provinces of Novara, Alessandria, Asti and Cuneo are attracting a significant amount of national migration besides that from abroad.

Figure 1 Total population trends in the Piemonte region and its provinces: 1992-2009 (Index Numbers: Resident population 1/1/1992 = 100)



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

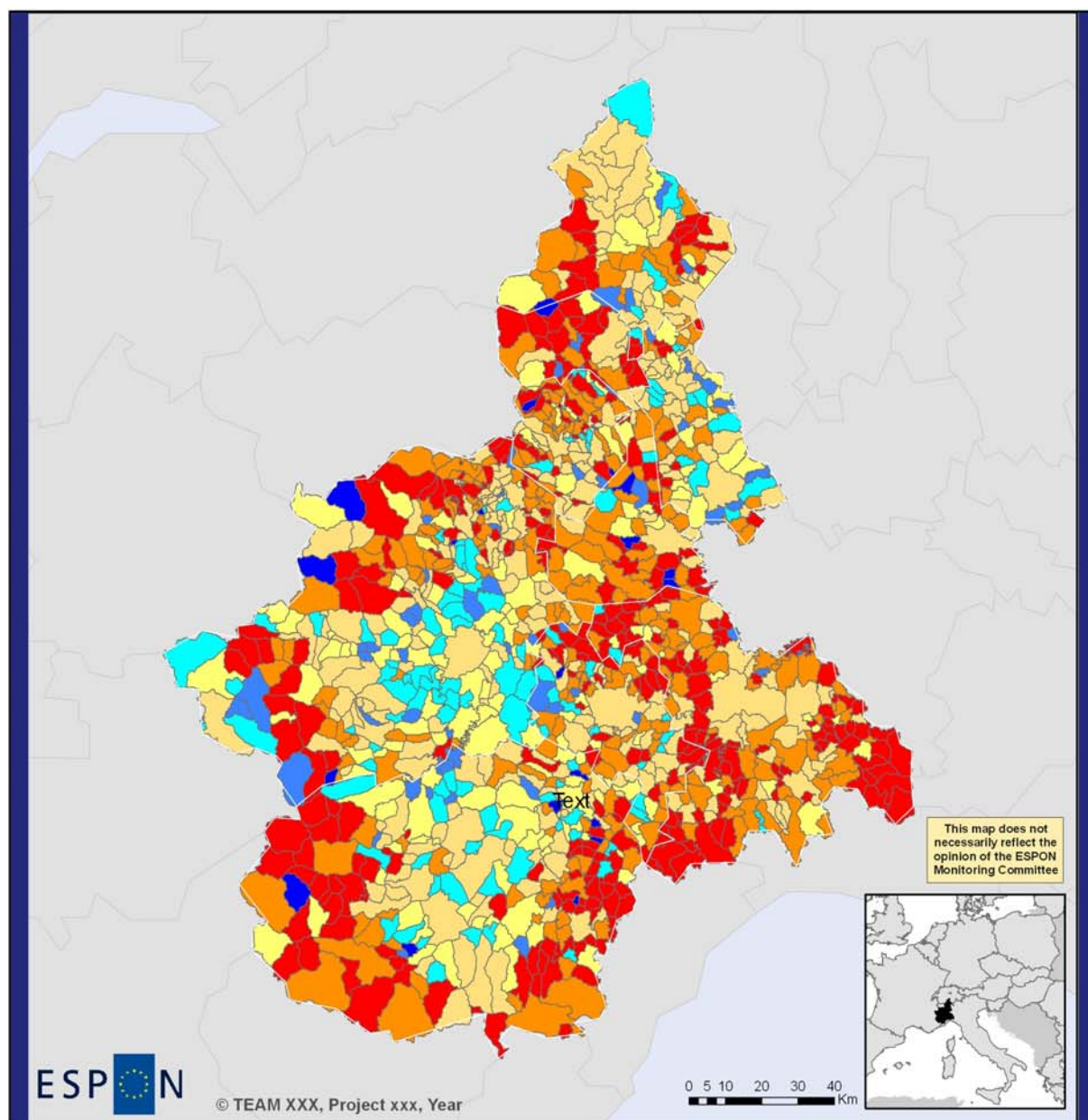
3.3 Natural change: fertility and mortality

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, and yet life expectancy is not significantly shorter 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 in childbearing age.

¹¹ 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.

¹² The domestic net migration is calculated by subtracting the registered outflows to other Italian municipalities from the corresponding inflows.

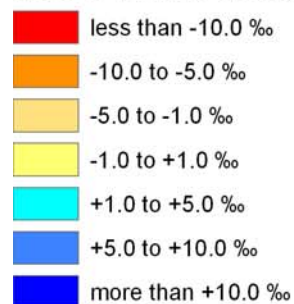
Map 3 **Municipalities by the rate of natural change in the Piemonte region:**
2008 (‰)



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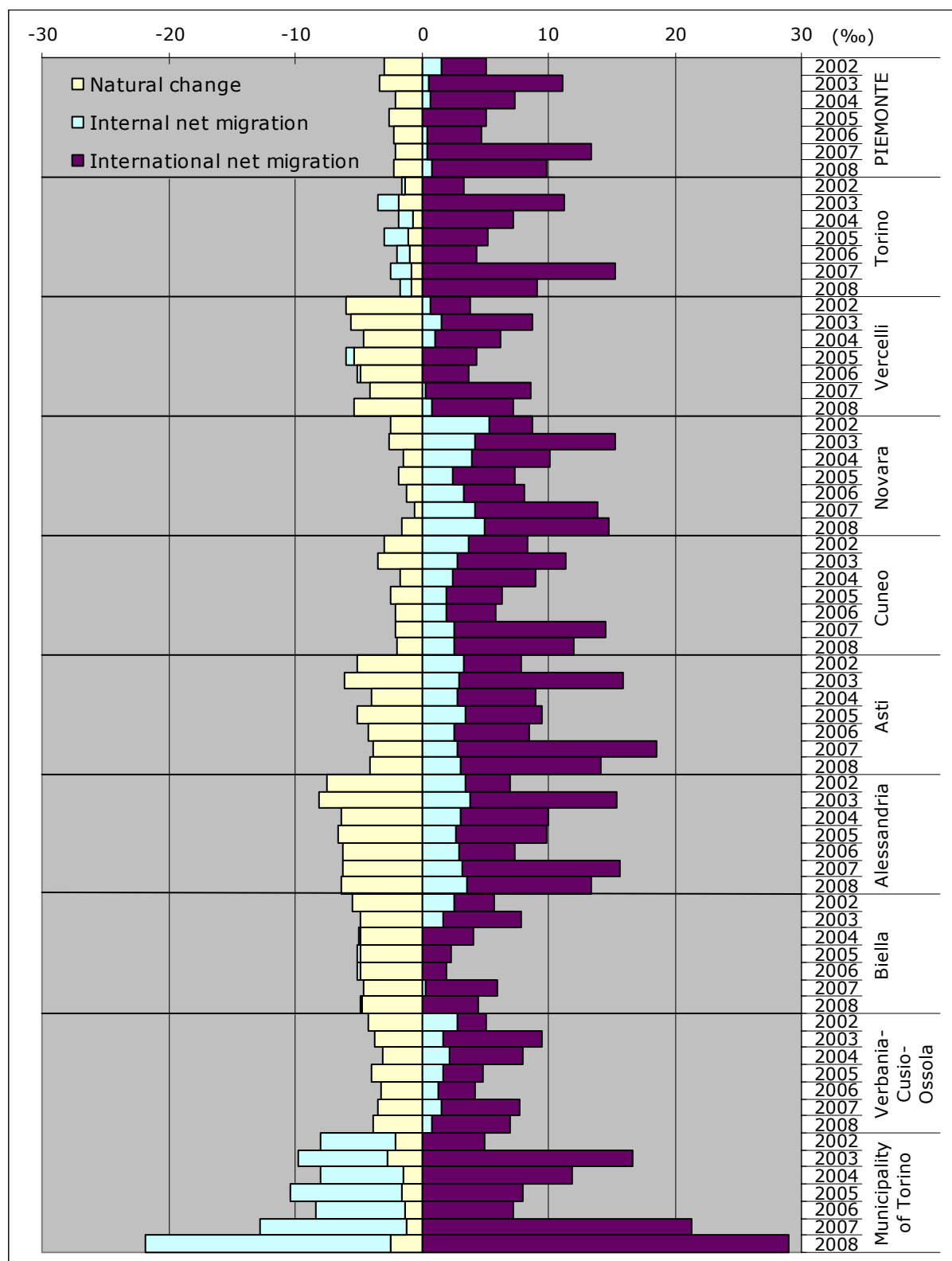
Rate of natural change 2008



Local level: LAU2
Source: xxx, year
Origin of data: xxx, year
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Source: Elaborations of data from the ISTAT database available at <http://demo.istat.it/>.

Figure 2 Main components of population change in the provinces of the Piemonte region: 2002-2008



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 touched 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 (AACB), all the provinces are converging on an AACB that is even higher than 30.5 years everywhere, and above 31 years in the provinces of Torino and Verbano-Cusio-Ossola. The fertility rate began to grow again in Piemonte since 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 then for the first one (+22%). The contribution of foreign immigrants was important: 1/6 of the 2008 births was to foreigners 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 AACB is now close to 32 years [Tursi 2009: 6].

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

Reference areas, Region, Provinces	Birth rate (‰)		TFR (No)		AACB (yrs)	
	1992-2001	2002-2008	1999	2007	1999	2007
ITALY	9.5	9.7	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	8.6	1.12	1.35	30.6	31.0
Torino	8.2	8.9	1.11	1.35	30.8	31.2
Vercelli	7.3	7.7	1.07	1.38	30.1	30.7
Novara	8.2	9.0	1.13	1.40	30.4	30.9
Cuneo	8.8	9.1	1.26	1.45	30.3	30.9
Asti	7.5	8.4	1.15	1.40	30.2	30.6
Alessandria	6.6	7.3	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	7.9	1.03	1.18	30.8	31.3
<i>Province variability (100xCV)</i>	<i>7.89</i>	<i>7.80</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/>.

Table 6 Death rate and Life Expectancy at Birth (LEB) by gender in the Piemonte region and its provinces: 1992-2007

Reference areas, Region, Provinces	Death rate (‰)		Male LEB (yrs)		Female LEB (yrs)	
	1992-2001	2002-2008	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	11.1	73.6	78.5	80.6	84.1
Torino	10.1	10.0	74.0	78.8	80.8	84.6
Vercelli	13.8	12.8	72.6	77.2	79.8	83.3
Novara	11.5	10.7	72.7	78.9	80.6	84.3
Cuneo	12.3	11.5	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	12.6	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>10.48</i>	<i>0.92</i>	<i>0.76</i>	<i>0.44</i>	<i>0.65</i>

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

The death rate has declined throughout the region. Here again there has been a process of convergence between the provinces of Piemonte (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 (LEB) for males of between 4.3 and 6.2 years, and for females of between 2.5 and 3.8 years. The gains in LEB 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% greater and for females at the same age it is 5% greater. The variability between male life expectancies in the various provinces of Piemonte reduced, but it increased for women.

3.4 Net migration and migration flows

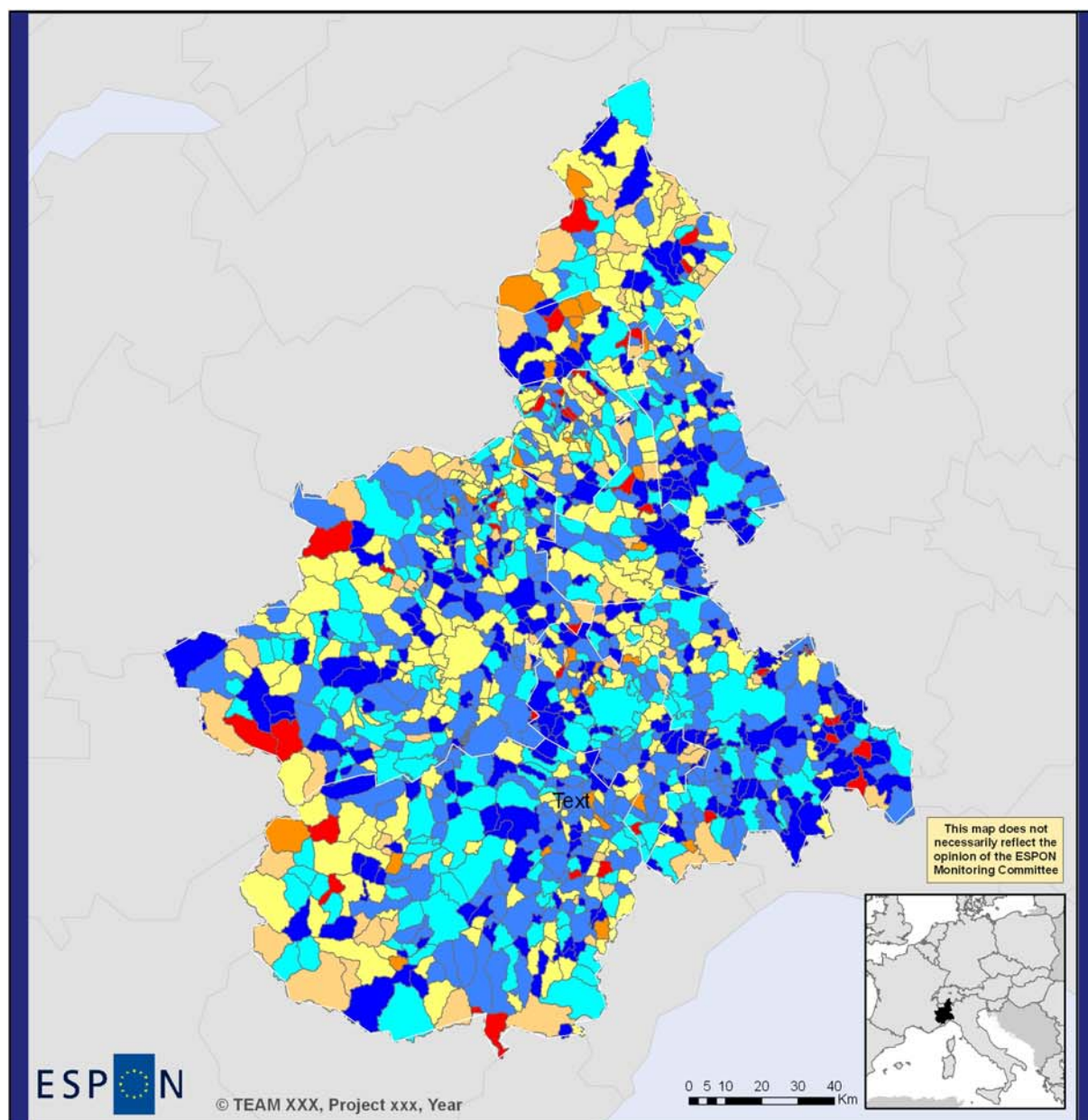
The importance of migration for recent population changes in Piemonte and its provinces has already been emphasized (Table 1). Without the addition of immigrants from other parts of Italy (with a balance for recorded arrivals and departures of around +2,800 annually, on average in the period 2002-2008) and especially from abroad (average international net migration of around +32,400 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.

In fact, population mobility was much more intense than that indicated by the net migration figures: an annual average of about 129,000 arrivals from other Italian municipalities was recorded between 2002 and 2008 and the corresponding number of departures recorded was about 126,000. 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 36,300, and departures to abroad averaged about 4,000 each year. This bears witness to the fact that, on the one hand, foreign immigration is still increasing 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 later on.

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 the geographical areas involved (provincial capital city, municipalities of its 1st or 2nd ring, and the rest of the province).

The intra-province flows (Table 7) show that there is considerable mobility in the provinces of Biella and Torino. It is largely the prevalent mobility within all the domestic movements, 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

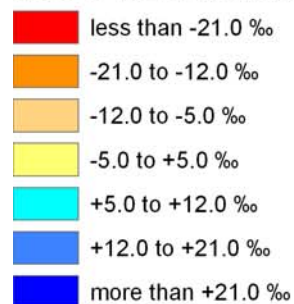
Map 4 **Municipalities by the rate of net migration in the Piemonte region:**
2008 (‰)



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Rate of net migration 2008



Local level: LAU2
 Source: xxx, year
 Origin of data: xxx, year
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Source: Elaborations of data from the ISTAT database available at <http://demo.istat.it/>.

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 provided graciously.

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 Cuneo have registered higher rates and share of internal flows, but only the latter one had a positive net migration from those intra-regional flows. There were few differences between intra-regional and intra-province migration 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 urbanization flows, if they still occur, seem to settle in the rings around the capital cities, perhaps for cost reasons or due to a preference for the type of housing and surrounding environment.

Table 8 Extra-province and intra-regional 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 provided graciously.

In 2001-2007, little more than 1/5 of Piemonte's domestic migration was to and from the other regions of Italy in equal measure (Table 9), and so the net balance was virtually nil, as in almost all of Piemonte's provinces, with the exception of Novara and Verbania-Cusio-Ossola. The latter, together with the South and the West coastlines of Lake Maggiore, attracts elderly and well-off immigrants. By contrast, Novara, which borders with Lombardia and participates in its industrial development and its services, still attracts economic migrants from areas of Italy which suffer more from lack of employment 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 with the other Italian regions, a situation far different from the past in the 1950s throughout the 1970s.

Table 9 Inter-regional 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 provided graciously.

For the immigration from abroad it is preferable to analyse the average data of 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 late registrations (in-migrations) exceptionally grow; 2006-2007 should be at the end of that process.

In 2001-2002, Asti and Cuneo were the provinces most involved by the immigration from abroad, 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 2006-2006 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 2nd ring. The external municipalities of the Torino province have been heavily involved from the foreign immigration.

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
Average 2001-2002						
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
Average 2006-2007						
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

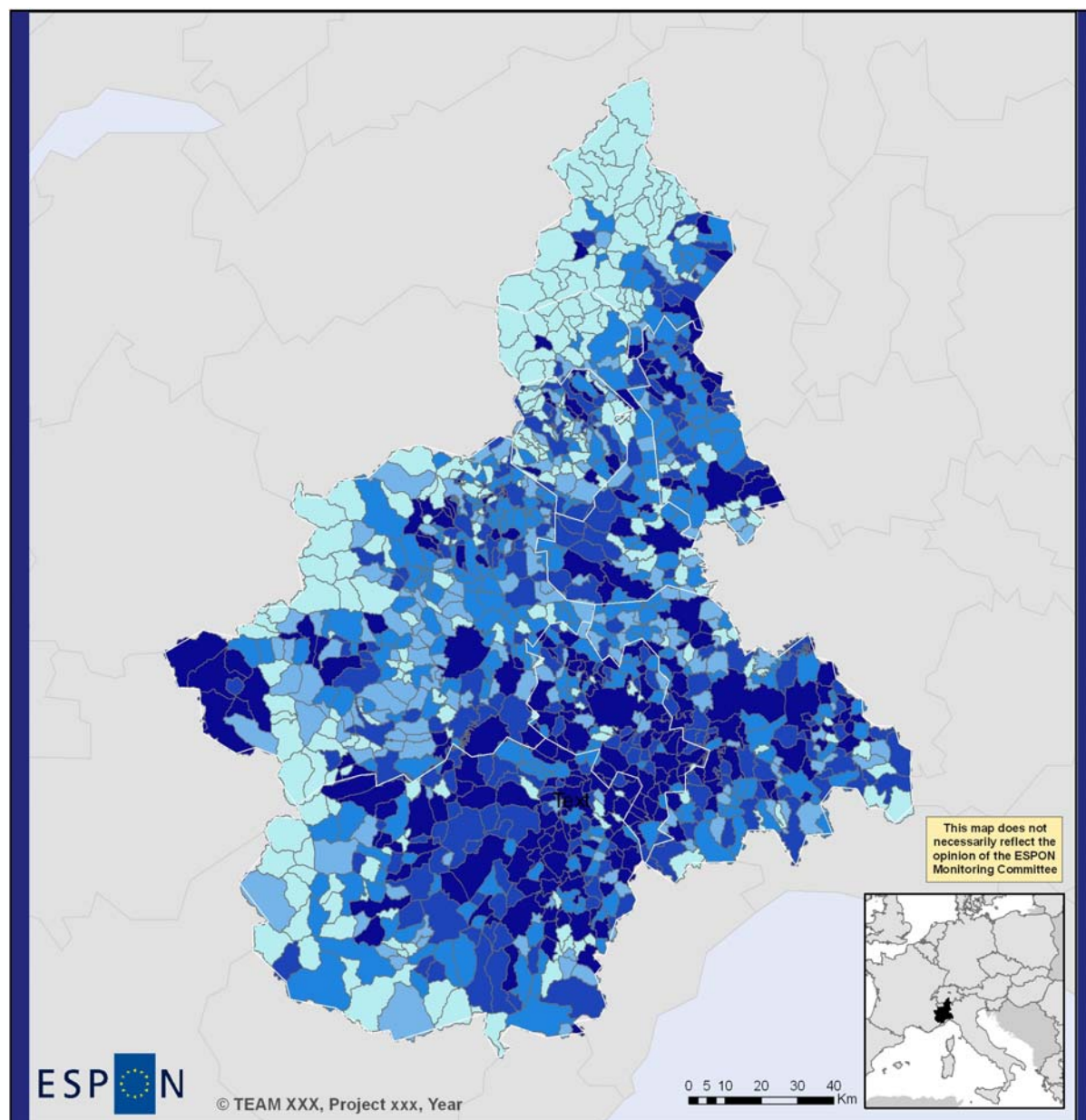
Source: Elaborations of data drawn from ISTAT (2006). *Movimento migratorio della popolazione residente. Anni 2001-2002*. Data for 2006-2007 have been furnished graciously.

3.5 Presence of foreign migrants: their provenance and demographic characteristics

On 1 January 2009 there were 351,112 resident foreigners in Piemonte, i.e. 7.9% of its total resident population. 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 5 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, resident immigrants are more present in the hilly and mountainous municipalities in the south of the region, apart a nucleus in the western mountains that confine with France: there we find the most famous ski-sport resort like Sestrière.

Map 5 **Municipalities by the share of foreign resident population in the Piemonte region: 1/1/2009 (%)**

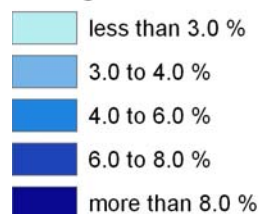



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Local level: LAU2
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 Origin of data: xxx, year
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Legend

Foreign residents 1.1.2009 (%)



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

The characteristics of the foreign resident population (Table 11) indicate the accumulation of young immigrants taking root where they reside or, at least, who for the most part are settled in a semi-permanent way. 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-Ossola province – there is large demand for middle-aged women as housemaids and nurses for the 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 headed by a foreigner are included as well.

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 immi- 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.

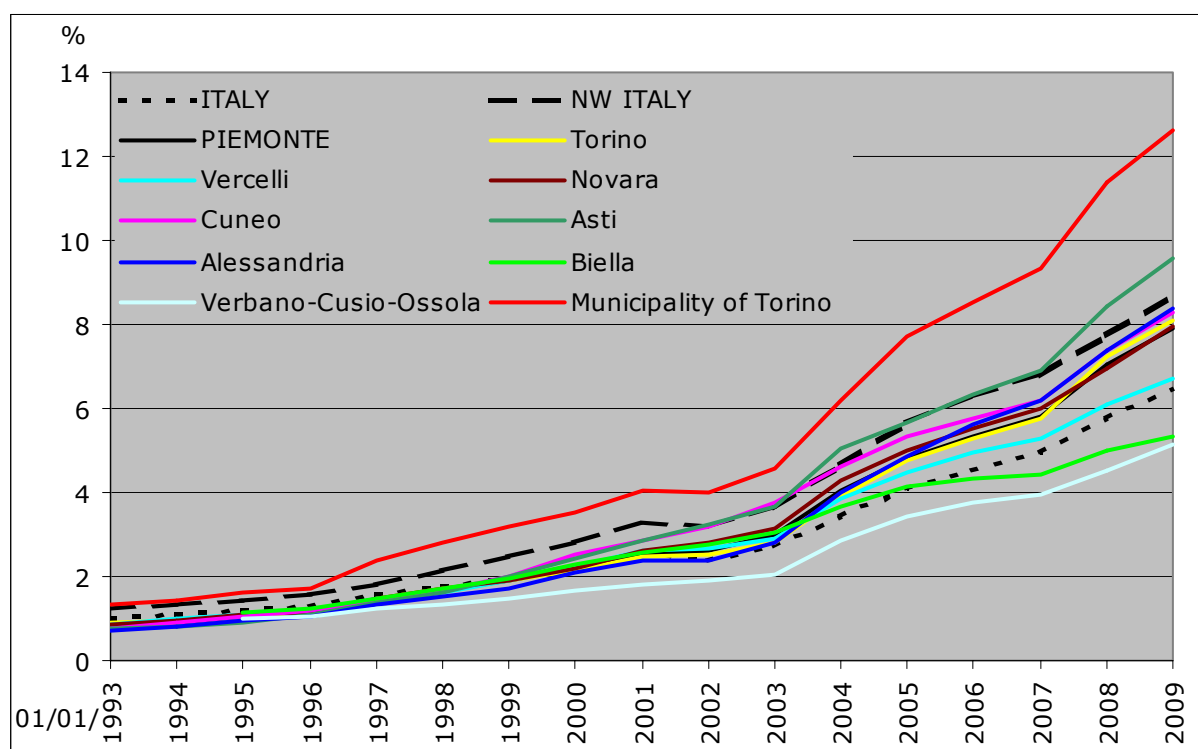
Notes: ^(a) Both internal and international immigrants; ^(b) Ratio between the percentage of households with a foreign head and the percentage of foreigners in the total resident population.

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

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).

Today, 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, thanks to the broader migrant regularization rules. Growth of the share of resident foreign population in Piemonte's provinces seems 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 have 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%.

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/>.

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 with 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 – Romanian and Moroccan. By adding two more nationalities (Albanian and Chinese) we sum up to 2/3 of the total; with four more nationalities (Peruvian, Macedonian, Moldovan, and Ukrainian) 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 (Table 12), we have very diverse situations.

Piemonte could seem to be more integrated in the ESPON area than the rest of Northwestern Italy; in fact, 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 Torino. In percentage terms, only the lake province of Verbania-Cusio-Ossola hosts more foreign residents who are citizens of one of the EU-15 countries. In the provinces of Cuneo, Asti and Alessandria, a significant number of Albanians have settled after the large inflows from Albania in the 1990s: 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 migrants, mainly women, from Ukraine, who do domestic work for families or in the communities.

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 the ISTAT database available at <http://demo.istat.it/>.

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 to 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), particularly in the province of Torino, where the foreign resident population more than doubled between 2003 and 2009.

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 the provinces, or as regards the different nationalities that make up the foreign population in the region. For example, in the province of Verbania-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 has attracted older women to emigrate from the countries of Eastern Europe.

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
<i>Municipality of Torino</i>	<i>98.9</i>	<i>30.5</i>	<i>31.2</i>	<i>48.1</i>	<i>48.8</i>	<i>25.5</i>	<i>25.5</i>
<i>Rest of the Torino Metropolitan Area</i>	<i>85.6</i>	<i>29.3</i>	<i>31.1</i>	<i>48.8</i>	<i>51.1</i>	<i>22.9</i>	<i>24.7</i>

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

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 being 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 Economic change and the population: the labour market in the Piemonte region

In the past, Piemonte was a forerunner among the regions, but for several decades now it has no longer been considered as one of the top regions in the Italian economic panorama. There are some unquestioned 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 market gardening 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 beat the crisis in the automobile industry that began in the 1970s and overcome its basic incapacity to recycle an industry that had become too heavily based on one industry¹³.

Only in more recent years has the Piemonte's economy started up again by leaving behind the Fordist model that had characterized its previous development. It has moved towards the services sector, supported and directed by significant state investment (e.g. the fast rail link between Torino and Milano)

¹³ In reality, the predominance of the automotive industry and related activities in Piemonte's industrial landscape tends to mask other branches of industry which have developed and continue to develop normally: textiles, especially in the Biella district; chemicals and plastic materials; food and confectionary; and office machines.

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 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.

4.1 Main economic characteristics at NUTS3 level

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 compared with neighbouring Lombardia (€30.3 thousand per capita and €63.3 thousand per LU). However, none of the provinces in Piemonte exceeds 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 Verbano-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 Northwestern 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 services 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

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	Agriculture etc.	Manufacturing		Service sector			
		Total	Real M.	Total	Trade	Financial	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.

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 was halved and there was an increase of more than 10 percentage point in the share of the employed 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. 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 Verbania-Cusio-Ossola, with its lakeside tourism and accommodation facilities for elderly, well-off clients.

The agriculture 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 the other more industrialized province, Novara (36.6 per cent).

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 2009 (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 was 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 thousand)

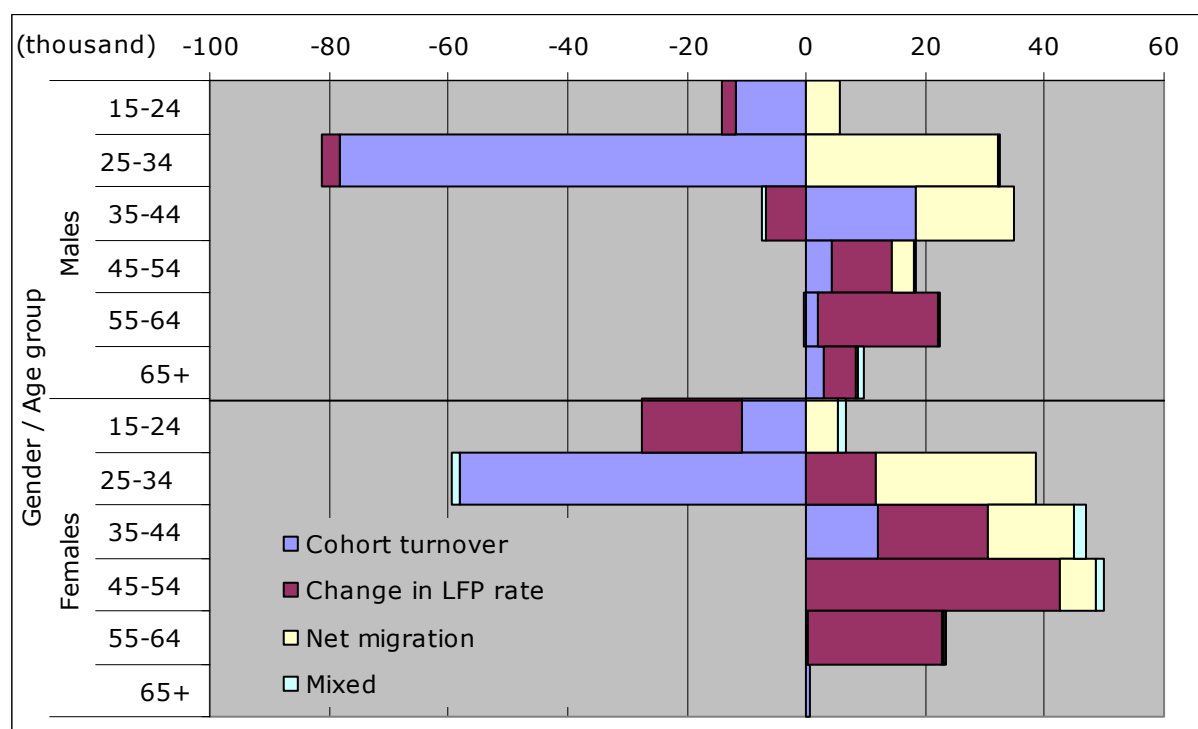
Reference areas, Region, Provinces	Total	Economic sector				Worker position	
		Agriculture	Manufacturing	Real manuf.	Services	Employees	Independent
ITALY (%)	+8.8	-20.5	+1.7	+1.4	+14.8	+12.4	-0.6
NW ITALY (%)	+8.3	+0.7	-3.5	-6.0	+16.1	+10.5	+2.2
Piemonte (%)	+5.6	+3.3	-7.1	-9.7	+14.0	+7.2	+1.2
Piemonte (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.

Overall, therefore, apart from those who crossed over between sectors and position, the 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 in that of Vercelli. It would be interesting to discover the cause of these increases – from an endogenous increase in the working-age population, 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 whole¹⁴. Figure 4 shows the gender and age-group components of the changes in the employed population.

Figure 4 Components of change of 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 of employed males over the age of 65 years, because of greater demographic turnover, and also to an increase in the related employment rate. 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. Therefore, the two 'internal' items taken together would have led to a reduction of -25,000 workers. In short, the entire increase 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, which at 2008 rates rises to an increase of +112,000.

¹⁴ 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 with a usual distribution model.

The large deficit in the turnover of young workers, especially in the 25-34 years age group, emerges clearly from the Figure 5. This deficit is only partly offset by net migration, which did however make 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, employment growth in Piemonte in the 2000s has been characterized by: a sharp reduction of younger workers due to insufficient cohort turnover, which has not been offset by higher net migration; an increase in older workers caused by the cohort turnover, positive net migration and, especially, by an increase in the employment rates, particularly for women.

4.3 The role of migration in the workforce

It is important to examine precisely the role of migrations in the regional workforce given that 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 2008 was 254,000, i.e. 36,000 as an annual average, or +15% a year. These migrants have made an essential contribution to employment growth¹⁵.

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.

The foreign population has a much higher labour 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%).

The employment picture shows a strong concentration of foreign males in construction and manufacturing industry, and of foreign women in services for the family; but 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 care of the home and of the person, which absorb half of all the female

¹⁵ It is not possible to distinguish between internal and foreign immigration in the above calculations for net migration within the 2002-2008 variations in employed population. Nevertheless it is worth noting that in the same period 92% of Piemonte's net migration was with foreign countries.

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 one. They often follow the demand for private and strongly ethnicised work (e.g. 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 joining them later.

5 Economic change and the population: Human Capital and Social Capital in the Piemonte region

5.1 The Human 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 immigrations from the poorer 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.

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 low. Nevertheless, there is no functional pre-selection of job applications and, following entry into Italy, work placements are rarely matched to educational level. Especially for labour migrants from developing countries, this gap is partly due to the difficulties encountered in Italy to have qualifications obtained in a foreign country officially recognized, but it is mainly due to the Italian productive system which utilises foreign workers usually 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 the past in many immigration countries, but which seems to have greater difficulty in starting up in Italy (and therefore in Piemonte) due to a contradictory attitude to foreign labour immigrants and the hiccups in the development of the economy.

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 & Molina 2004]. The IRES Report, with reference to Ministry of Education 2006 data, makes reference to 42.6 thousand students enrolled in any kind of school (university excluded) in Piemonte. On average, they accounted for 7.6% of the total, but in the provinces of Alessandria and Asti, they exceeded 10%, as was also the case in the municipality of Torino: for the first two, the strong presence of foreign students is also a result of settlements of Albanian immigrants who arrived in the 1990s [IRES-Piemonte 2007: 78-79].

5.2 The Social Capital

The importance of social networks both in the smooth functioning of a society and the well being of its people is well known [Nahapiet & Ghoshal 1998]. The difficulties in measuring the 'social capital', which tries to operationalise those concepts, are also well known [Grootaert & van Bastaeler 2001]. In any case, a wide set of indexes may be used either in the people's perspective or in 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 countries¹⁶. 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 also an aspect of the social capital in the region. 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 in the area of farming activities and agricultural products. Social wineries, for instance, are rare, as 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.

6 Economic and social consequences of demographic change in the Piemonte region and its provinces

Apart paragraph 6.5, this section will be implemented in the final version

6.1 Economic and social consequences of population ageing

...

6.2 Economic and social consequences of labour-force ageing

...

¹⁶ 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.

6.3 Economic and social consequences of immigration

...

6.4 Economic and social consequences of changes in population and immigrants settlement

...

6.5 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 manufacturing industry is thought to have fallen in 2009 by 5.7% and the corresponding AV by 20%, both declining more than the Italian average. In the first quarter of 2009, Piemonte's exports fell by 27%, investment by more than 10%, and household consumption by 2.2%¹⁷. The unemployment rate jumped from 5% in 2008 to 7% in the first quarter of 2009, and then fell again in third quarter to 5.2% for males, remaining however at 7.1% for females. Wage supplementation fund costs representing one quarter of the national total must be added to the unemployment burden.

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 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 overseas 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 mean the closure of plants outside the region¹⁸. 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

¹⁷ Data are taken from Armano *et al.* [2009].

¹⁸ At present, the closure by 2012 of the Termini Imerese FIAT plant in Sicily is under discussion.

backdrop of the '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 burdensome. 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 services, 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.

7 Prospects of population ageing in the Piemonte region and its provinces

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 and the shift of the larger cohorts to older ages.

Population ageing may be contrasted 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 may add another ageing process among the immigrant population. The two remedies can be combined, partly through the probable increase of 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 would reach 2.75 starting from now. If we want to maintain the same proportion of elderly population (65 years and over) in 2030, fertility would have to be multiplied by 2.9 and TFR would have to reach 4.07 children per woman immediately. No fertility increase, however, could maintain the present proportion 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.

7.1 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 maintained¹⁹. It is only a hypothetical exercise that can turn to be useful in understanding the in-built forces of the ageing processes and the necessity of careful interventions to contrast them. Table 19 shows the rates of changes in the time-periods 2009-2019 and 2020-2029 by total population and main age groups. In Table 20 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.

Table 19 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.

On the contrary, the elderly and oldest age groups would increase²⁰, though not uniformly either over time or in the provinces due to the different times of passage of the World War 2nd cohorts and the 1960s' baby-boom cohorts through those age groups. 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%); 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

¹⁹ 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 adjusted at provincial level to produce the actual number of births registered in 2009.

²⁰ This will happen anyway, disregarding the hypothesis made. In fact, possible further lengthening of life could add some points to those increases.

population. By contrast, the share of the working-age population would be reduced 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.

Table 20 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.

The socio-economic consequences of these hypothetical population trends are clear. An increasing burden of elderly people on a shrinking working-age population would upset all the mechanisms by which the economy and the welfare society work. And this is especially true if some rules and behaviour do not change in the labour participation of 'marginal' labour forces (women and elderly people, in particular) and in the modal age at retirement.

In addition, a 10% share of old people (80 years and over) would be an unbearable burden for a society if these people are poor and/or disabled: the challenge is to prepare them as of now to arrive at the older ages in the best state of health possible and with a satisfactory standard of living. For that, a change of perspective is needed, especially where a 'philosophy of life' epitomizing youth prevails.

Nevertheless, the very problems caused by population ageing may be a spur for the local economy if managed in innovative ways and with appropriate technologies for good health, computer aids for disabled people, house-building and equipping for elderly people, home innovations (domotics) etc.. Piemonte has the technical know-how and the entrepreneurial class to turn the ageing problem into an economic benefit. However, this will happen only if, at national and local level, private stakeholders and public welfare want to invest adequate resources and money [Abburà & Donati 2004].

The exercise described above raises a more difficult problem to solve: the shrinking of the working-age population may lead to a reduction of 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

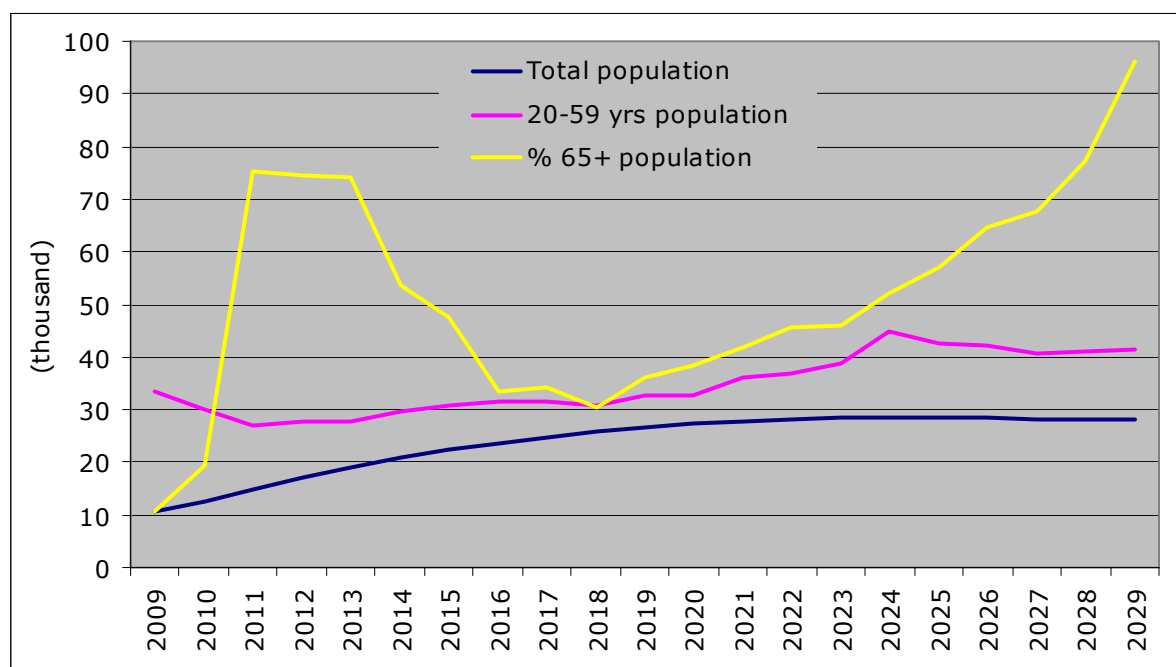
central age groups), only the lengthening of working life could tackle that shrinkage, and only partially, in any case. A cutback in the workforce must be envisaged in the near future of the region starting from today's resident population. In this case, only important increases in labour productivity could maintain the regional GDP and standard of living at the current levels.

7.2 How large should be net migration for maintaining demographic equilibriums?

Evaluating how many immigrants are needed to maintain either the present level of i) total population in Piemonte, or ii) 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 is 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 net migration in the last seven years has been about +35,000 in Piemonte, including both internal (less than 10%) and international migration. Apart from the significant net migration needed to maintain the share of elderly population constant²¹ 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 level – 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 years²².

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



Source: Elaborations based on ISTAT data.

²¹ This is due to the post-war and the baby-boom cohorts moving into the elderly ages.

²² Net migration is calculated as a residue, by gender and single age, in 2008. Only the 0-59 yrs age-span is considered.

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 thousand 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 21%²³, unless naturalisation procedures were widely applied to changing foreign citizens into Italian nationals.

7.3 The DEMIFER scenarios

Population forecasts are particularly questionable when the demographic change depends on contrasting trends in its components. This is especially the case when the internal forces make the population decrease quickly while immigration contrasts 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 the current situation and project it 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.

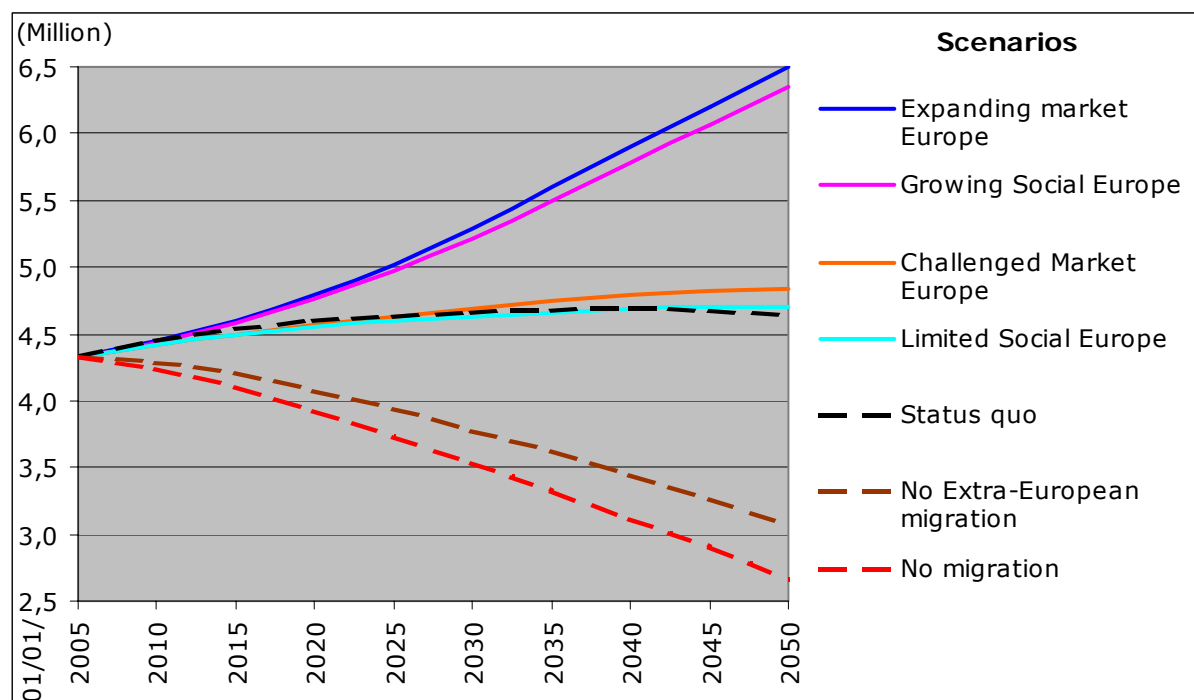
The 'low' policy scenarios in either economy-environment or distribution-fairness do not depart too much from the population trend under the 'Status quo' scenario, except in the last projection years, where they keep the population growing still. Both the 'high' policy scenarios foresee a very strong increase in the population residing in Piemonte, which should be multiplied by about 1.5 in forty years and projected 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

²³ 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.

positive only in the latter scenario and starting from the second part of 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 80-85% in the 'Growing Social Europe' scenario and 80-95% in the 'Expanding Market Europe' scenario, i.e. the two 'high' policy scenarios foresee annual immigration flows from the non-ESPON countries of 38,000-52,000 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 contrasted 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) in the policy scenarios 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%).

8 Conclusions and extensibility of the case study

This section will be added in the final version

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