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THE AGEING PROCESS IN GERMANY FROM 1995 TO 2002

1. Introduction

Ageing of nations is a typical feature of structural changes in contemporary societies. The process of ageing, understood as a constant growth in the number of older people within a society, is prominent in numerous places around the world, especially in the developed countries. In those countries, the birth-rate decreases every year; hence, the relative number of the young is falling down. Moreover, the life expectancy is growing at the same time. Ageing of societies, when analyzed as an increase in the share of older people within the society, is a direct effect of those tendencies [Wieniecki, 1981; Kurkiewicz, 1992; Holzer, 2003; Długosz, 2002, 2003].

The ageing of the German society has been long studied and it can be stated that its characteristics change both in time and in space. Therefore, the aim of this paper is to propose a profile of the ageing process in the Federal Republic of Germany within the time period of 1995–2003. At the same time, the authors would like to notice that the description presented does not attempt to include all possible aspects connected to the ageing of societies. The paper concentrates on specific issues related to the very process itself. The authors wish to concentrate on the analysis of changes in the burden index (understood here as the share of those older than 65 years in the general population), on changes in the ageing index (the ratio of those aged 65 to those below 15), and eventually on describing the dynamics of the ageing process. In order to pinpoint the spatial differentiation, the authors investigated 439 administrative units including a selection of counties and towns.

After studying reports and scientific publications it is clearly visible that in the last decade of the 20th century the process of ageing was intensifying in Europe. According to Długosz [2002], it stopped only in three countries, namely in Denmark, Monaco, and Switzerland. Therefore, it is legitimate to state that

nearly the whole Europe is ageing so the process typical of Germany is also characteristic of the continent. However, as Germany was divided into two separate states which used to be influenced by different socioeconomic tendencies, it seems interesting to try to decide if the process of ageing is similar in both former parts of today's Federal Republic of Germany.

Just to recall the basic facts from the modern history of Germany: the country was divided into two separate states, the Federal Republic of Germany (with a free market economy) and the German Democratic Republic (which belonged to the socialist bloc), due to the resolutions of the international conferences in Teheran (1943), Yalta (1945), and Potsdam (1945). After nearly 50 years, due to growing unification tendencies and socio-political transformations within the former Soviet Bloc countries, two German states were reunited on 3 October, 1990. It was possible also thanks to the earlier Treaty on the Final Settlement with Respect to Germany, sometimes referred to as the Two Plus Four Agreement, which was signed in Moscow on 12 September, 1990. Under the new socioeconomic circumstances, the introduction of the free market economy also in East Germany may be reflected in the way processes develop and in changes of population structures, which should be similar to those encountered in West Germany [Münz, Urlich, 1994].

It is suggested, in the article, that the ageing process will develop faster and more intensively in former East Germany due to the economic failure of various enterprises and industry, and to general reorganization of former socialist economy. Also unemployment and weaker economy of this part of Germany are responsible for further migration of a large number of people to former West Germany, which concerns mainly mobile persons available for work (mostly in 1990–1997) looking for jobs and for better life conditions [Münz, Urlich, 1994; Münz, 2000; Michel, 2003; *Abwanderung...*, 2004].

2. The ageing process in Germany

In their analysis of the stages of ageing process, the authors of this paper follow a UN recommendation, according to which one must be over 65 years old to be included within the group of the elderly (in France it is customary to set the boundary at the age of 60) [Kurkiewicz, 1992]. In order to present the quantitative changes in the ageing process, the authors decided to employ the burden index understood as the ratio of those above 65 to the general number of the population [Wieniecki, 1981; Kurkiewicz, 1992; Holzer, 2003; Długosz, 2002]. Another factor taken into account is ageing index, frequently called the demographic burden, which estimates the number of those who are 65 and older per 100 children under 15 years of age [Kurkiewicz, 1992; Holzer, 2003; Długosz, 2002, 2003].

Studies so far suggest that in 1995 the number of people aged 65 and above reached 15.6% of the German population; however, in 2002 the ratio increased to 17.5%. After analyzing the diversification of the burden index in *kreis* (German administrative units of the 2nd order) and in towns, as these administrative units were differentiated in Germany from 1995 to 2002, it is possible to notice that in 1995 the index of burdening varied between a maximum of 22.6% and a minimum of 8.7%, whereas in 2002 between 23.7% and 12.4%, respectively. Every year the number of administrative units with the average participation of older people at the level of 18% and above is growing. Although, in 1995, out of 439 administrative units only 12.2% (53 units) had the participation of the older reaching 18% or more; in 2002, this ratio increased to 44.5% (in 39% of the units the level of the older reached 18–21% and in 5.5% the elderly constituted 21.1–24%). It is also necessary to mention the facts that in 1995 there was only one place with the ratio of older people above 21% (Baden-Baden city with 22.62%) and that there was an astounding 35.3% of units with the ratio of the older below 15% (in 2.5% of the administrative units the ratio was below 12% and in 32.8% units it was 12.01–14.99%). However, in 2002 there was not a single administrative unit with the elderly constituting less than 12% of its population (Fig. 1).

When concentrating on the ageing process and its spatial distribution in 1995, it is possible to indicate three enclaves quite clearly with a surprisingly

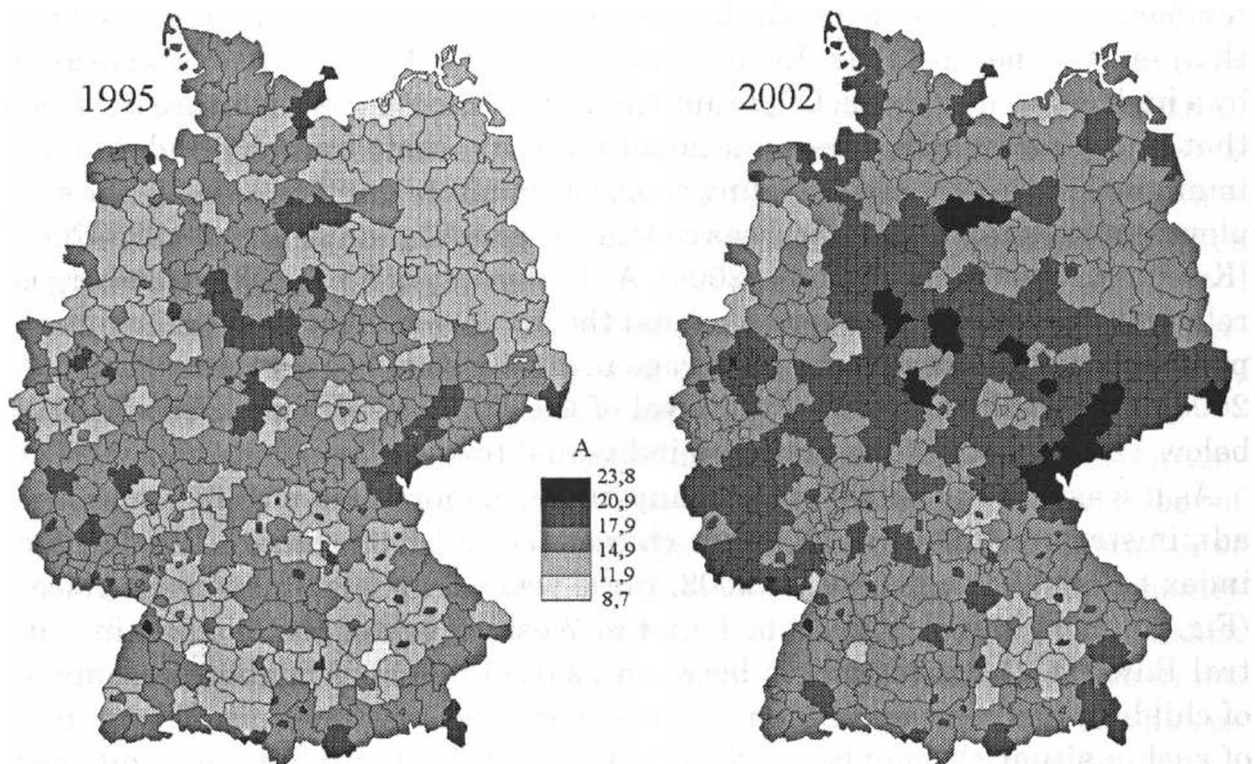


Fig. 1. Percentage of the population aged above 65 in Germany in the years 1995 and 2002
Source: authors' own elaboration based on data from Statistisches Landesamt Deutschland

low, as for Germany, ratio of the elderly below 15%: 1) Mecklenburg-Western Pomerania and Brandenburg; 2) the Western part of Lower Saxony and the Northern stretch of North Rein-Westphalia; and 3) central districts of Bavaria and Baden-Württemberg (Fig. 1). Each of the provinces may be analyzed separately; nevertheless, there are some general features unifying all the listed areas.

As regards the North-Eastern stretch of land, *i.e.* Mecklenburg-Western Pomerania, which used to belong to the German Democratic Republic, one can notice that it is distinguished by its agricultural nature. Until 1990 it had been the region with the highest fertility rate in the whole Germany, reaching 1.64 children per woman; hence, with a birth rate much higher than in the industrial parts of the country. On the other hand, this part of the former GDR was characterized by high mortality (partly caused by alcoholism, according to Krohnert, van Olst, Klingholz, 2004) and comparatively short life expectancy. Due to these factors that part of Germany was noted for a low burden index in 1995.

The second area encompasses North-Western parts of Germany, in which the low ratio of people aged 65 and above can be attributed to intensive domestic immigration of young people at the beginning of the 1990s. Such a shift of the young into the regions rejuvenated the age structure [Krohnert, van Olst, Klingholz, 2004].

Finally, the third of the listed regions includes Bavaria and Baden-Württemberg, the regions, in which the socioeconomic crisis was much less severe than in the other districts. Even nowadays the two Länder are characterised by a high economy growth. Of paramount importance to the region are the facts that it is a place with diverse national industry, comparatively high foreign immigration (mostly mobile young people arrive here), and eventually the employment in national industry was constantly growing in the period 1995–2000 [Krohnert, van Olst, Klingholz, 2004]. As the society of Baden-Württemberg is relatively young it is not surprising that the fertility rate reached 1.47 children per woman, when the German average in 2003 was only 1.34 [*Datenreport...*, 2005]. Due to these features the level of the burden index in 1995 was still below 12% in most of the *kreis* and individual towns (Fig. 1).

As it was already noted, in Germany, in 1995, more than a third part of the administrative units (35.3%) were characterized by the level of the burden index below 15%, whereas, in 2002, there was only a handful of such places (Fig. 1), most of which could be found in Western Lower Saxony and in central Bavaria (the ratio was in between 12.01–14.99%). A higher percentage of children has a prime influence on a lower index of burdening. The origins of such a situation may be ascribed to the Catholic upbringing in a number of administrative districts between Kloppenburg and Belgium and to a large number of foreign immigrants. In non-German origin families the number of

children is relatively higher than in native German households [Krohnert, van Olst, Klingholz, 2004].

A larger than before economic pressure and the consequences of the ageing process may bring on an unexpected outcome: in 2002, up to 44.5% of the German administrative units to a large extent consisted of older people; moreover, the ratio of the older within the society grew above 18% in comparison to 12.2% in 1995. In 1995, such a high level of ageing was found only in a few places in the Southern parts of Lower Saxony and in the South-Western areas of Saxony. In 2002, the high ratio of the elderly is characteristic of nearly a half (44.5%) of the administrative units, mainly those in Saxony, Saxony-Anhalt, South-West Lower Saxony, the North-Eastern stretch of North Rhine-Westphalia, as far as to the coast of Schleswig-Holstein. Some other locations with a similar higher ratio of the burden index are densely industrialized districts around the Rhine, North Hesse, and South Rhineland-Palatinate together with Saarland (Fig. 1). Hence, it is possible to conclude that the areas listed are those parts of the former Federal Republic of Germany with the highest influx of young people within the period studied. The data suggest that up to 2.035 million inhabitants left the former German Democratic Republic and settled in West Germany between 1991 and 2003 [Abwanderung..., 2004]. For example, in 2003, above a half of these immigrants (51%) recruited from young people aged 18–30, who were looking for better life conditions [Abwanderung..., 2004].

On the other hand, a substantial number of people older than 65, in the areas of West Germany described so far, should be partly attributed to the industrial nature of the region with high urbanization. Therefore, those administrative units become less appealing to the young, especially those with small children. For a number of years, the birthrate in the locations in question was rather low and was combined with a high exodus of younger people. These factors influence a general tendency of age structures to become older and shape a higher ratio of the elderly in the population.

Within the German borders in 1995 only one administrative unit, Baden-Baden city, had a population with a ratio of older people above 21%; however, in 2002, there were already 24 such *kreis* (Fig. 1).

Obviously, there are also other measuring instruments of investigating ageing process than concentrating on the ratio of the old to the general number of citizens. It is also worth focusing on ageing index, which shows the number of people above 65 in relation to 100 persons below 15 (Fig. 2). In 1995, in nearly 86% of the administrative units the number of the elderly per 100 persons below 15 amounted to 120. In the remaining 14% of the administrative units, the figure was in between 121–150 per every 100 of the young. Only two places were characterized by a number at the level above 150, and Baden-Baden city was that with the highest – 176. That town is well known as a most famous spa in Germany, where every fourth citizen in 1995 was over 65 years old. In

addition, it offers high-standard medical services and recuperative treatment, which appeals to older citizens [Krohnert, 2004].

After analyzing and comparing the ageing index in 2002 to that in the pe-

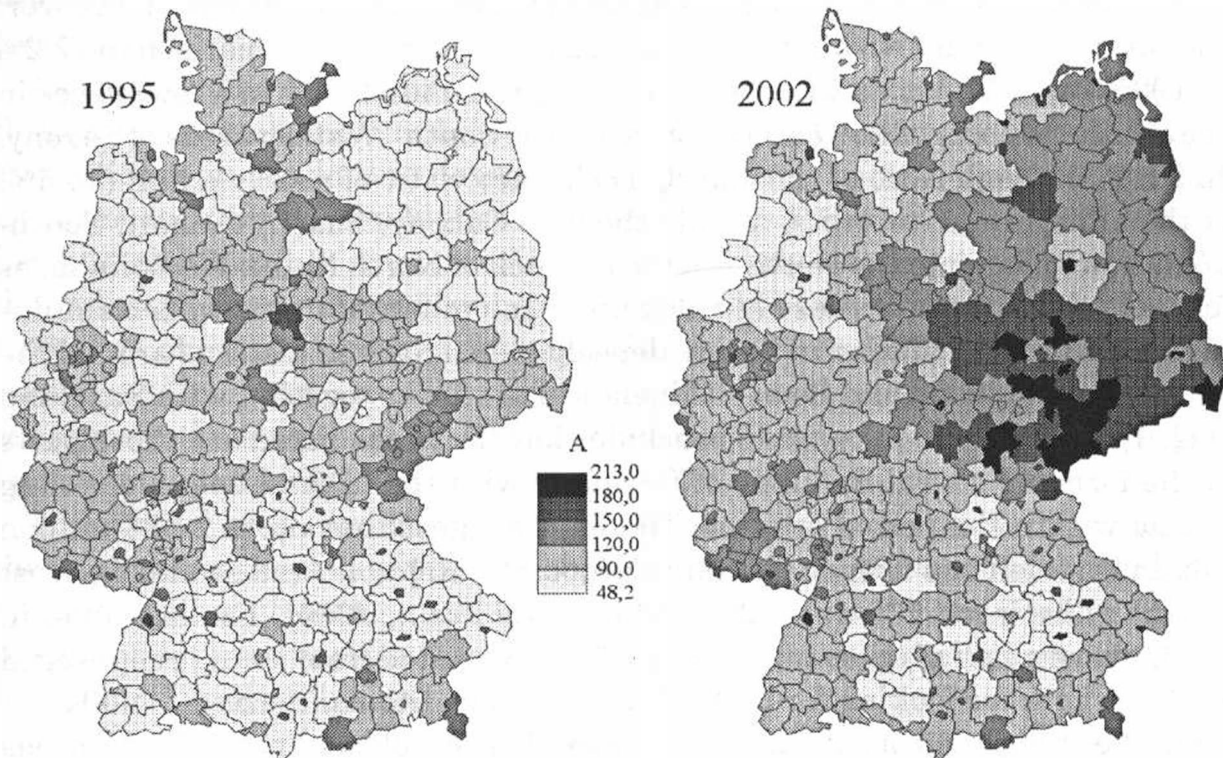


Fig. 2. The index of burdening the young population (aged 0–14) with the older population (aged above 65) in 1995 and 2002 (per 100 at the age 0–14)

Note: $A = [L_{+65}/L_{0-14}] * 100$; where: L_{+65} – the number of population aged 65 and more; L_{0-14} – the number of population aged 0–14

Source: authors' own elaboration based on data from Statistisches Landesamt Deutschland

riod 1995–2002, one may easily notice an alarmingly growing nature of the ratio between the old and the young. The number of the administrative units, where the number of the elderly per 100 persons below 15 did not amount to 120, fell by a third. As it was mentioned before, in 1995 there were 86% of such units; however, in 2002, only 52.3% of all the units could still be characterized by such a low ratio. Moreover, the number of locations with the ageing index 120–180 increased nearly threefold from barely 14% of the administrative units in 1995 to troublesome 41% in 2002 (Fig. 2). In contrast, the *kreis* with the lowest ageing index in 2002 can be found in central Bavaria and Western parts of Lower Saxony. Both in 1995 and in 2002 the index did not exceed 90 in those regions.

An examination of the differences between the administrative units from the point of view of their spatial arrangement reveals that in 2002 there were some centers with a higher ageing index (above 150). Those areas were located in

Saxony, South Saxony-Anhalt and in the Southern stretches of Brandenburg neighboring on Saxony. A similar conclusion may be drawn from the study of the North-East districts of Germany, like Mecklenburg-Western Pomerania and Brandenburg as a whole. In these two German Länder, the ageing index in 1995 did not even reach 90; however, eight years later, in 2002, it rose up to 120–150. Concluding, it may be said that nearly half of East Germany is characterized by the highest ageing index (above 120). There is a number of factors responsible for the situation, the most important of which are:

- the constantly low birthrate, around 7‰ in former East Germany ever since 1990 [Munz, 2000];
- the ever-growing life expectancy;
- the negative balance of domestic West-bound migration (estimated 848, 200 inhabitants left East Germany in 1991–2003) [*Abwanderungen...*, 2004].

However, a proper description of the level of the burden index itself is not satisfactory. An ongoing ageing process is of prime importance in the contemporary world. In order to depict the dynamic aspect of the process scientists devised a measuring technique named population ageing index W_{sd} [Długosz, 1998, 2002, 2003], which is more than suitable to characterize the ageing process in Germany in 1995–2002.

$$W_{sd} = [U_{(0-14)t} - U_{(0-14)t+n}] + [U_{(>65)t+n} - U_{(>65)t}]$$

where:

- W_{sd} – ageing index;
- $U_{(0-14)t}$ – share of population aged 0–14 at the beginning of the period studied;
- $U_{(0-14)t+n}$ – share of population aged 0–14 at the end of the period studied;
- $U_{(>65)t+n}$ – share of population aged 65 and more at the end of the period studied;
- $U_{(>65)t}$ – share of population aged 65 and more at the beginning of the period studied Długosz [2003].

When using the technique (Fig. 3) it becomes clearly visible that the processes of ageing in former West and East Germany differ substantially: in the former – the process slowed down significantly, whereas, in the latter – the process was accelerating throughout the whole examined period.

3. Conclusions

The investigation presented in the article proves that Germany still remains divided into two distinct parts from the point of view of demography. Unlike the Western part, East Germany is characterized by a considerably higher

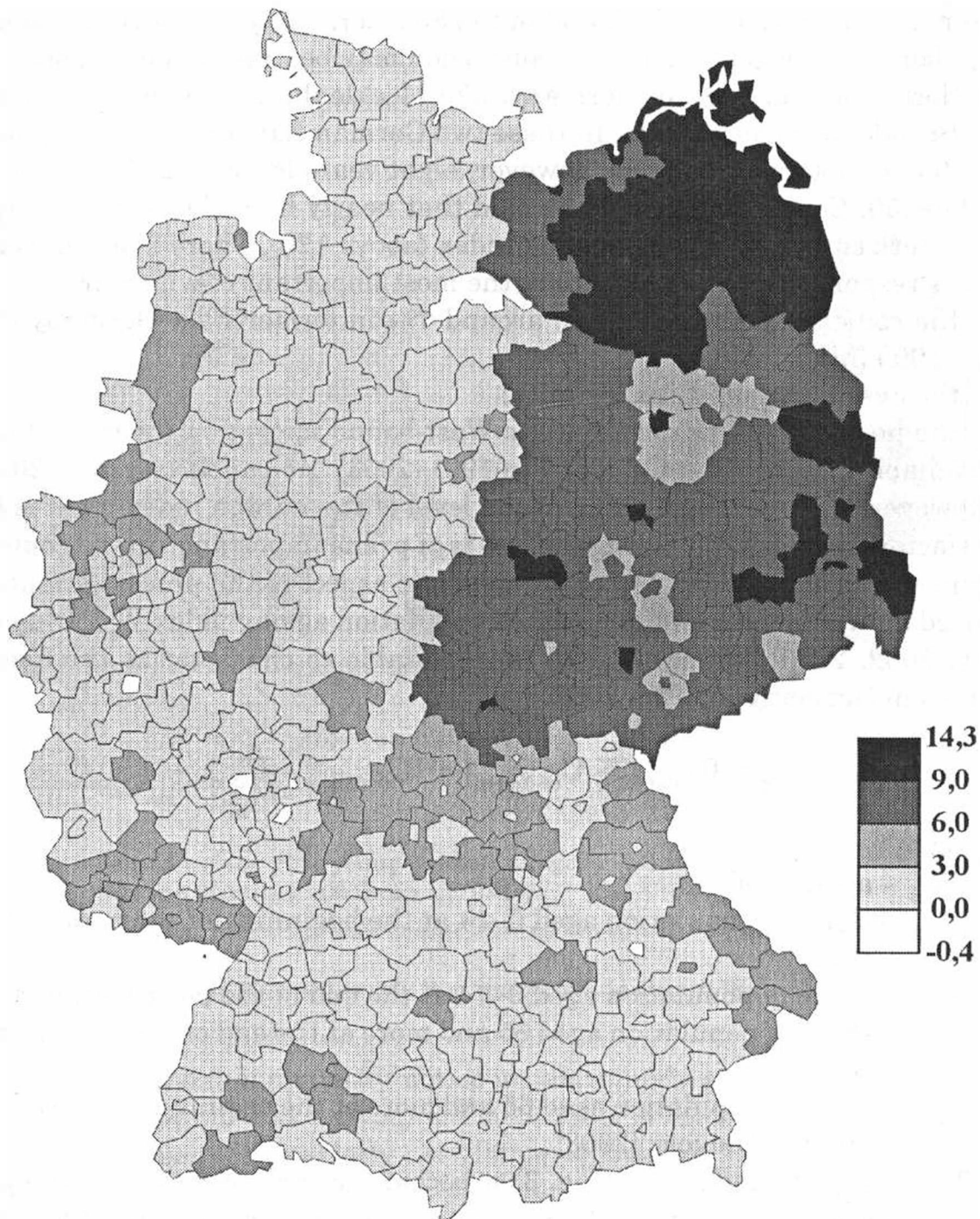


Fig. 3. The population ageing index W_{sd} in Germany in the years 1995 and 2002

Source: authors' own elaboration based on data from Statistisches Landesamt Deutschland

burden index, ageing index, and the dynamics of the ageing process. In the former lands of the Federal Republic of Germany the ageing process is significantly slowed down by such factors as the domestic influx of East Germany immigrants.

The analyses presented in this article attempt to depict the ageing process of Germans on the turn of the 20th and 21st century. However, the concluding

remarks try to cast a new light on the demography in the Federal Republic of Germany after the unification of the Western and Eastern states, and also try to challenge stereotypes fossilized by earlier studies. What is more, it is difficult to predict the future of the country with nearly 80 million inhabitants. What will come will probably be decided by the level of birthrate, hence, by the number of the young within the population, and the number of the young when set against the cohort of the post-war baby boom, who are now crossing the border age of 65. In addition, it is also very difficult to predict if demographic shifts in Germany will still be decided by foreign and domestic immigrants, and if the birth rate among native Germans will finally increase.

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